

Strengthening the *Bendega* Institution in Supporting Sustainable Development in Denpasar City

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Abstract

Bendega is a traditional institution of Bali's coastal communities that has an important role in marine governance, fisheries, and the preservation of maritime culture. However, modernization, tourism development, and urbanization in Denpasar City have posed challenges for the sustainability of *Bendega*'s function. This research aims to examine the existence of *Bendega* in Denpasar, identify the problems faced, and formulate a strategy to strengthen its institutions. The research uses a descriptive qualitative approach through literature studies, regulatory analysis, and interviews with *Bendega* figures and related stakeholders. The results of the study show that strengthening *Bendega* can be carried out through: (1) harmonization of regulations between local governments and customary rules, (2) institutional capacity building and member regeneration, (3) strengthening maritime-based economy, (4) revitalizing the value of *Tri Hita Karana*, and (5) multi-stakeholder collaboration. This study emphasizes the importance of strengthening *Bendega* as one of the foundations of sustainable development in the coastal area of Denpasar City.

Keywords: *Bendega*, traditional institutions, institutional strengthening, sustainable development, blue economy

1. INTRODUCTION

Bali is known not only as a world tourist destination, but also as a region that has a unique wealth of customary institutions, one of which is *Bendega*. *Bendega* is a traditional fishermen's organization that functions to regulate fishing activities, marine management, and coastal cultural preservation. Like Subak in agriculture, *Bendega* has social, cultural, and religious values based on the **Tri Hita Karana philosophy**: a harmonious relationship between humans and God, others, and nature.

In this context, *Bendega* is present not only as a fishermen's group, but also as a customary institution that has economic, social, cultural, and religious functions. This role is in line with *the values of Tri Hita Karana* which emphasizes harmony between humans, nature, and God, as well as the principles of *the Blue Economy* which encourage the sustainable use of marine resources. With a legal basis in the form of Bali Provincial Regulation No. 11 of 2017 concerning *Bendega*, this institution is expected to be able to contribute to maintaining coastal cultural identity, strengthening community welfare, and supporting regional food security policies.

Along with the times, especially with the rapid growth of tourism and urbanization, *Bendega*'s living space and activities face complex challenges. Coastal zoning conflicts, declining fish stocks, limited access to financing, and the impact of climate change are problems that have implications for regional food security (Hobart & Ramstedt, 2020). In the legal context, the Bali Provincial Government has provided a formal foundation through Bali Provincial Regulation No. 11 of 2017 concerning *Bendega*, which regulates the functions, rights, and obligations of this coastal customary institution. However, the implementation of the regional regulation has not been fully optimal, especially in

the city of Denpasar which still faces obstacles in the formal formation of the Bendega institution. However, in Denpasar City, the rapid growth of tourism and urbanization has a significant impact on coastal areas. Land conversion, marine pollution, is a threat to the sustainability of Bendega. In fact, the existence of Bendega is important to maintain local food security, coastal ecology, and the cultural identity of the people of Denpasar. Although the bendega has been regulated in the Regional Regulation Where institutionally bendega is the same as the traditional village institution which has a complete structure from the village to the provincial level, but in the city of Denpasar a new Joint Business Group (KUB) has been formed, which is expected to be the formation of an institution such as the bendega intermediate assembly. Meanwhile, regionally the boundaries for fishing bases are not clear, there are often disputes with tourism managers.

Based on this, this article raises the following questions: 1. How is the existence of Bendega as a coastal customary institution in Bali, especially in the city of Denpasar, in supporting regional food security? 2. What are the obstacles faced in the implementation of Bali Provincial Regulation No. 11 of 2017 concerning Bendega, especially related to the establishment of the Bendega institution in Denpasar City?

The purpose of this study is: **to analyze the existence of Bendega** as a coastal customary institution in Bali, especially in Denpasar City, in supporting food security through sustainable fisheries management practices based on local wisdom. **Identify the obstacles** faced in the implementation of Bali Provincial Regulation No. 11 of 2017 concerning Bendega, especially related to the process of establishing the Bendega institution at the Denpasar City level. **Formulate a strategy to strengthen the Bendega institution** through synergy between the government, the Customary Village Assembly (MDA), HNSI, academics, and fishing communities in order to strengthen the social, cultural, and economic capacity of the coast. **Offering a model of actualization of Bendega's** role that is in line with the *Tri Hita Karana philosophy* and the principles of *the Blue Economy*, so as to strengthen regional food security while preserving the marine ecosystem and Balinese cultural identity.

2. LITERATURE REVIEW

- a. Traditional Institutions (North, Ostrom – governance of commons). North (1990) states that institutions are a set of rules that limit social, economic, and political interactions. Ostrom (1990) emphasized the importance of local institutions in managing *common pool resources* in a sustainable manner.
- b. Bendega in the Context of Balinese Customs: customary rules, Tri Hita Karana, Subak vs Bendega as a local institution. Bendega as a traditional fishermen's organization has its own rules in marine governance. Its existence is recognized through **Bali Provincial Regulation Number 11 of 2017 concerning Bendega**, which places Bendega on a par with Subak. The Tri Hita Karana philosophy is the basis for the ethical management of marine and coastal resources.
- c. Previous study: the role of Bendega in other areas in Bali, obstacles, and strengthening strategies. Research by Windia (2013) confirms that Bendega plays a role in maintaining local wisdom as well as marine food security. However, another study (Picard, 2006) shows that tourism often shifts the socio-economic function of Bendega. Therefore, strengthening Bendega needs to be seen as a strategy for cultural preservation as well as natural resource management.

3. RESEARCH METHODS

This study uses a **qualitative approach**. This approach was chosen because the role of Bendega as a coastal customary institution is not only related to economic aspects (food security), but also to complex social, cultural, legal, and environmental dimensions. Through a case study in Denpasar City, this study seeks to explore in depth how the actualization of the role of Bendega is implemented in the daily lives of coastal communities. The research location is the coastal area of Denpasar City, especially in Sanur, Serangan, and Padang Galak, which still have active Bendega communities. Data was obtained through: Literature and regulation study (Bali Regional Regulation No. 11/2017, Denpasar City Government policy document). Data collection techniques through Focus Group Discussion (FGD). Data analysis is carried out in stages of reduction, categorization, interpretation, and triangulation to ensure the validity of the findings.

4. RESULTS AND DISCUSSION

4.1. The Existence of Bendega in Denpasar City

Bendega in Denpasar still exists, especially in the Sanur and Serangan areas. The function of bendega is to regulate the time to go to sea, the type of fishing gear used, and the procedures of religious ceremonies related to the sea (*segara kerthi*). In addition, Bendega also has a social function in strengthening the solidarity of coastal communities. Bendega is one of the traditional institutions of the coastal communities of Bali that has an important role in the marine and fisheries sector. Its existence is not only related to the economic activities of fishermen, but also rooted in cultural, social, and religious values that are inherited from generation to generation. From a historical perspective, the existence of Bendega has been recorded since the 9th century in the Bebetin Inscription (896 AD), which shows the profession of coastal people as boat builders and sea traders (Sanjaya & Sudiarta, 2022). This shows that Bendega has a strategic position in the Balinese people's life system.

4.2. Obstacles faced

Obstacles from the aspect of regulatory weaknesses that have not been optimal in the implementation of the Bali Provincial Regulation on Bendega). Limited human resources and regeneration. Lack of collaboration with the government and the private sector. The Denpasar City Government cannot provide grants because there is no nomenclature that regulates the authority of the city government to provide grants to the city. The obligations and rights of the border have not been balanced based on the very important role of the border and the huge obligation to protect the coastal area, but the support from the government has not been appropriate. The reason for investment is that there is friction because the boundaries of the area/zoning that are the weakest areas have not been classified. The equipment used by motorboats and fuel refueling is renewed every three months, this is very burdensome. Coastal arrangement is still lacking, the existence of fishermen is increasingly displaced. The function of the *belus* fisherman card is clearly utilized. There needs to be data on the catch of traditional fishermen. Access to fishermen is cut off, such as when bringing fuel to fill up the fishing boats' fuel, they have to walk through the path and are not allowed to use motorcycles. To explain government fishermen and economic tourism fishermen: Bendega fishermen are losing competition with the modern tourism and business sectors. Environment: marine pollution, coastal abrasion, and exploitation of coastal resources. Collaboration: there is still a lack of synergy between Bendega, the government, academia, and the private sector.

The response to the obstacles based on the results of the FGD was from the Chairman of the Indonesian Nlayan Association in the form of clear regulatory limitations for Bendega. Immediately form an institution at the lower level in the city of Denpasar with a minimum of 5 bendega formed this year (2025), then next year will be escorted to get grants. Bendega is not the same as tourism fishermen. Bendega is as stated in the Bendega Regional Regulation it is clear who Bendega is, what is its role. Data on the boundaries of fishing bases will be immediately provided. In order to pay attention to the requirements and flow of the formation of the Bendega Institution, namely: identification of Bendega, including 3 elements, namely Pawongan, Palemahan and Parahyangan, Elements of Pawongan in the form of prajuru bendega, elements of palemahan in the form of coastal areas and assets, elements of parahyangan consisting of temples, customs and culture, meeting of the formation of Bendega is equipped with the Minutes of Formation, ratification of Bendega to the regent/mayor of the last Regent/Mayor Decree on Bendega. If you don't have Segara Temple, you can use Swagina Temple on the Coast.

The response from the Head of the Bali Provincial Forestry and Fisheries Service is to be understood based on regulations, if analogous to the parents of fishermen/bendega is the district/city Fisheries Service, Sea parents are the Bali Provincial Fisheries and Food Security Service, regarding assistance, will be escorted please submit proposals as needed, such as Karangasem fishermen often submit proposals in accordance with technical instructions. In order to empower the Fishermen Village again, the empowerment of fishermen is carried out by the Bali Provincial Fisheries and Food Security Office. The institutional empowerment of the leading sector, the Regency/City Fisheries and Food Security Service, cannot be charged to this Service alone, but it needs collaboration between the Fisheries and City Food Security Service with PMA and the Culture Service. Technically, for the determination of the Bendega deterrent, coordination with the Office in the City of Denpasar is needed. Regarding the data from the catch, the source is on the Official Portal, namely the KKP Portal and the source is all fishermen, especially in Bena. In the future, it is necessary to conduct a survey of the catch of traditional fishermen. The Special Allocation Fund (DAK) budget can be used for assistance to fishermen, the process/mechanism is for fishermen to submit it to the Fisheries Service, then from Denpasar City submit it to the Province. The Marine Service will oversee the proposal of the Denpasar City Bendega. Regarding the Tahura problem, in the form of a Special Committee on Tahura by the Denpasar City DPRD, an Inspection was carried out and the one handling it was the Satpol PP. Suggestions will be submitted to the Denpasar City DPRD

Regarding licensing, the Provincial Government only knows limited to information there is no realm of granting permits, the mechanism is in the relevant agencies. To preserve the catch before processing, you can use a Fish Freezer with a capacity of 200 kg, to obtain a Fish Freezer you can submit a proposal.

The response from academics is that in the Regional Regulation and the Bendega awig-awig should be based on customs on the coast. The empowerment of fishing bases is listed in the Regional Regulation of RTRW Fishing Bases. Bendega and tourism managers should be further coordinated between tourism and bendega related to the use of coastal areas.

The conclusion of the results of the FGD is that the Bendega Institution should be formed immediately up to the level of the City of Denpasar. Immediately installed a fisherman's base board. Immediately determine the zoning boundaries of the Bendegan land. In order to facilitate communication between tourism actors and the district. To oversee the proposal proposal to get assistance according

to the needs of the Bendega, for that immediately Bendega will conduct a need mapping based on palemahan, pawongan and parahyangan. Socialize the Regional Regulation on Bendega. It is necessary to create a mechanism for submitting proposals from fishermen to the provincial government so that the city government knows. It is necessary to collaborate in coordinating assistance to Bendega between the Bali Provincial Government, the Denpasar City Government through related agencies, the Cultural Office, MDA, HNSI, and Academics.

4.3. Strategies for Strengthening Bendega Institutions

Based on the discussion of the results of the FGD and literature study, a strategy was obtained to strengthen the Bendega institution in accordance with its very important role contained in Regional Regulation no. 11 of 2017, namely from the regulatory aspect in order to harmonize the Denpasar City Regional Regulation with the Bali Provincial Regulation on Bendega. Institutional Aspects: capacity building, training, regeneration of Benega youth. Economic Aspect: Marine based economic empowerment (ecotourism, local marine culinary). **Socio-Cultural Aspect:** revitalization of sea traditional ceremonies and the value of Tri Hita Karana to remain relevant in the modern era. **Collaboration Aspect:** building a network between Bendega, the government, universities, NGOs, and the tourism sector to create shared governance. The strengthening of the Bendega Institution in Denpasar City based on Tri Hita Karana and the Blue Economy for Food Security and Marine Sustainability of Bali can be formulated in the form of conceptual synergy as follows:

Table 1. Conceptual synergy of THK and Blue Economy

Dimension	Tri Hita Karana	Blue Economy	Integration in the Role of Bendega
Spiritual-ecological	Parhyangan: The Holy Sea (Kerthi Sea)	The ocean as a sustainable asset	Traditional Rituals and Marine Conservation
Social	Title: Community Solidarity	Inclusive economy of coastal communities	Benega Cooperative, a collaboration of traditional villages
Ekologis	Weakness: Harmony of nature	Sustainable resource utilization	Environmentally friendly fisheries management

Source: Processed by the Author

The purpose of the conceptual model is to realize coastal governance based on customary values and sustainability. Strengthening regional food security through optimizing local marine potential. Maintaining the cultural and spiritual identity of the Balinese people. Encourage coastal economic participation through an equitable Blue Economy model. There are three main components of the actualization model, namely:

- A. Parhyangan Dimension (Spiritual – Sacred Environment of the Sea), the actualization is in the form of:** establishing a sacred sea zone (**Segara Kerthi Zone**) in the coastal area of Denpasar, managed by Bendega together with traditional villages. Perform **routine ceremonies and rituals of reverence of the sea** to strengthen ecospiritual awareness. Education of religious values about the sea to the younger generation through the *activities of the Bendega Traditional Sea School*. As a **goal:** to strengthen spiritual and ecological values as the basis for marine resource management behavior.

- B. Pawongan Dimension (Social – Institutional and Collaboration), the actualization is in the form of:** Establishment of **the Denpasar Bendega Communication Forum (FKBD)** for inter-bendega coordination across customary villages. Strengthening **blue economy-based traditional fishermen’s cooperatives** (business diversification: processed marine products, educational tourism). Pentahelix collaboration (Bendega – Government – Academics – Private – Community). With **the goal:** to build social solidarity, strengthen institutional capacity, and improve welfare.
- C. Palemahan Dimension (Ecological Marine Resources Management), the actualization is in the form of:** Development of **customary marine conservation zones (Bendega Marine Sanctuary)**. Eco-friendly **fisheries practices:** restriction of destructive fishing gear, sustainable fishing seasons. Circular use of marine products: fish waste into organic fertilizer or animal feed. *Eco-literacy* education and simple blue technology (waste treatment, coral reef cultivation, and seaweed). **The goal is to:** maintain the sustainability of marine ecosystems as a support for food security.

Based on the actualization concept framework above, the Model Operational Framework can be formulated as follows.

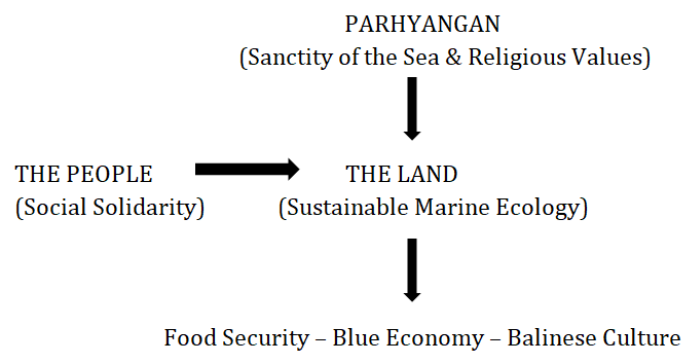


Figure 1. A Model for the Actualization of the Role of THK and the Blue Economy
 Table Source: Processed by the Author

Table 2. Implementation Strategy

Strategy	Action Program	Key Implementers	Expected Impact
Regulation & Governance	Integration of the Bendega Regional Regulation with the Denpasar RPJMD	Denpasar City Government, DPRD, Customary Village Assembly	Formal recognition and budget support
Customary Blue Economy	Bendega Cooperative based on seafood & educational tourism	Bendega & Cooperative Office	Increased income & local economy
Education & Regeneration	Bendega School & blue entrepreneurship training	Universities, NGOs, Coastal youth	Regeneration of fishermen and blue innovators
Marine Ecology Conservation	Indigenous marine conservation and community patrols	Bendega, DKP, Community	Sustainability of coastal ecosystems
Culture & Spirituality	Kerthi Sea Ceremony & Sea Culture Festival	Traditional villages, Culture Office	Strengthening Balinese cultural identity

Table Source: Processed by the Author

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion:

- a. Bendega is an important traditional institution that plays a role in maintaining marine sustainability, socio-culture, and food security.
- b. In Denpasar City, Bendega faces modernization challenges and needs a strengthening strategy through regulations, institutions, economics, and multi-stakeholder collaboration.
- c. Bendega in Denpasar City still plays an important role in maintaining the marine ecosystem, cultural identity, and food security of the community. However, the challenges of modernization, weak regulations, and declining interest of the younger generation are serious problems. The strengthening of the Bendega institution is a strategic step to ensure the social, economic, cultural, and coastal sustainability of Denpasar.

5.2 Recommendations:

- a. The Denpasar City Government has prepared a special Guardian/Regional Regulation for the strengthening of Bendega.
- b. Integration of Bendega in sustainable coastal development planning.
- c. Bendega youth capacity building and regeneration program.
- d. Development of a sea-based creative economy model for the welfare of Bendega.
- e. The Denpasar City Government needs to develop local policies that are in favor of strengthening Bendega.
- f. Integration of the Bendega program into the coastal regional development plan.
- g. Capacity building and regeneration of Bendega human resources through training and education.
- h. Empowerment of coastal creative economy in synergy with sustainable tourism.
- i. Multi-stakeholder collaboration in the management of marine resources based on local wisdom.

BIBLIOGRAPHY

- Elinor Ostrom. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press.
- North, D. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.
- Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press.
- Bali Provincial Regulation Number 11 of 2017 concerning Bendega.
- Picard, M. (2006). *Bali: Tourism and Tourism*. Jakarta: KPG.
- Windia, W. (2013). Subak and Bendega in the Perspective