



Development Potential of Fisheries as a Maritime Activity in Supporting Area Planning

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Abstract

This paper aimed to identify and discuss the gains on the development of fishery, maritime tourism and community engagement towards the regional planning of Belakang Padang District in Indonesia. Based on both exploratory and explanatory qualitative and quantitative data collected for the study, the study establishes and examines the economic, cultural, and environment opportunities and barriers to region development in the district. The studies show that fisheries are the largest and most important economy sector that influences the planning of regions; at the same time, the challenges are observed in terms of outdated technique and restricted access to markets. Maritime tourism has a lot of prospects and long-term influences for countries but it is restricted by the lack of sufficient infrastructure and capital. The study also highlights a major research agenda concerning the lack of citizenship in planning where most of the local actors are rarely involved in planning processes. Environmental sustainability as an additional challenge was discovered with pollution together with the inadequate disposal of wastes contributing to the harm of the district's development. Therefore, the study recommends an integrated regional development plan, focusing on the modernization of fisheries, tourism development, participation of community and conservation of the environment as key factors for sustainable development of Belakang Padang. Hence the research is useful in the existing literature on sustainable coastal development and charles district future planning activities.

Introduction

The option of coastal and maritime development is another area of interest of scholars, policy makers, and development practitioners since these areas are of strategic economic, cultural, and environmental significance. Seaboards, particularly in archipelagic countries, hold unparallel potential for development, including fisheries industry, marine tourism, and sea transportation. However, the sustainable management of these regions is challenging due to several factors that are associated with limited resources, sensitive ecosystems, and social and political conflicts (Mondal & Palit, 2022; Bringezu et al., 2016). The all-inclusive approach to the planning and development of these regions, where all of these factors interact, is important for realizing the potential of these areas (Surya et al., 2020).

Just behind the Belakang Padang District in the Riau Island province which is the part of Batam City is an ideal model for studying the issues of coastal region development. Historically and geographically, the district is strategically sited on the Malacca strait, one of the most vibrant global shipping lanes. It is a region of incredible historical traditions and one can encounter the atmosphere of ancient culture there It has potential health, religious and cultural resources

including historical temples, traditional fishing villages and religious attractions and that makes this district as a potentially cultural and maritime tourist destination (Timothy, 2011). Nevertheless, much of the districts latent economic possibilities remain unrealized for the reason of infrastructural drawbacks, pollutions, and lack of the effective incorporation of the district's communities into the district planning.

This sector is most important economic support of Belakang Padang, as many people have engage in fishing activity for their living. However, this sector is still considered to be in a state of blunted development this is because most fishers in this sector use rudimentary fishing equipment, inadequate or poor access to technology and swim in a comparatively weak market chain. These are not extraordinary problems of Belakang Padang but similar problems that are common to majority of small scale fisheries in Indonesia and other parts of global south (Ratri, 2022). The works of Tezzo et al. (2018) as well as Salayo et al. (2012) indicate that the fishery sector modernization that incorporates development in the infrastructure, better practices and markets openness has the potential of significantly augmenting the economies in the area and contributing to societal development on a regional basis. Nevertheless, reaching this goal is possible only if one introduces an efficient economic investment with protection of the environment and social justice as the top priorities (Nguyen & Khominich, 2023; Adamowicz, 2022).

Likewise, the untapped opportunity for future tourism development through maritime tour is applicable to Belakang Padang area. On the other hand, the cultural resource, coupled with other physical attractions such as natural scenery, suggest a potentiality for development of tourism in the district, which however seems to have limited advancement due to absence of such facilities as accommodation, eateries, and transport among others (Li et al., 2011). These community-based efforts towards tourism promotion while noble suffer from lack of capital and technical support; this shows that there is need for government support in capacity building of this sector (Rowardi et al., 2014; Manyara et al., 2006). In addition, the development of tourism that is linked with the cultural resources of the district can make Belakang Padang a heritage and an eco-tourism destination for the special group of travellers with a focus on the sustainable that tourists select and consume cultural experiences. But this can only be attained through careful planning, physical and financial resources in place as well as capacity development of the other stakeholders in the local regions (Masuda et al., 2022; Williams et al., 2020; Hazemba & Halog, 2021).

Another important issue can be attributed to the community participation in regional planning. Internationally, there is increasing appreciation of participatory governance systems in which users are engaged in influencing development processes (Barletti et al., 2020; Hgel & Davies, 2020). In Belakang Padang though, the lack of collaboration between government authorities and people in the region is a huge challenge when it comes to the planning in the region. But due to non-Recognition of CBOs/PGs in decision-making processes as a result of lacking official structures through which they are involved in the decision making hence constitute the community as inactive spectators as envisaged by Reindrawati & Sos (2017) and Kurniyati (2019). Studies have pointed out that when people are empowered to be involved in planning the results are far more sustainable and relevant to needs of the people. Of equal importance is the argument that there is need to integrate frameworks that enhance participation of the local stakeholders in a way that makes them meaningful participants of the envisaged development of the district.

Environmental sustainability is the other area of concern to Belakang Padang as more and faster economic activities especially fishing and other developing tourism impacting on use of natural

resources in the district. This paper established that the main endangered aspects of the environmental resource base are coastal pollution and poor waste management, which currently poses a threat both to the sustainability of the economy's primary economic sectors, namely fishery and tourism, among others (Anwar et al., 2023; Nunes & Leston, 2022; Herdiansyah et al., 2021). Environmental considerations' incorporation in the planning of the regions as thus vital in the sustainable development of the district (Kungolos, 2007; Omer, 2008). Various models of regional development, including coastal region development as presented in Integrated Coastal Zone Management (ICZM) contain valuable guidelines of how economic growth can be accomplished simultaneously with the conservation of the environment (Zhao et al., 2022; Murshed et al., 2021). Thus, by applying such frameworks, Belakang Padang can reduce impacts on the environment as well as increase economic readiness.

As this district occupies the strategic position at the island and considering the range of peculiarities that resulted in various problems concerning the development potential of Belakang Padang, this study intends to investigate the following issues: the role of the fishery and maritime tourism industries and the involvement of the community and environmental factors in the regional development. This method of research includes the use of quantitative data coupled with qualitative data in discovering reasons behind growth of the district. Firstly, the study aims to (1) establish the extent of contribution of fisheries in promoting regional planning; (2) determine the prospects of maritime tourism for overall economic development; (3) determine the impact of community participation in development; and (4) identify the key environmental factors which pose a threat to sustainable development.

Methods

In this assessment, the cross-sectional research design was used to incorporate both the qualitative and the quantitative data to establish the extent to which the three analyzed sectors, namely, fisheries, maritime tourism, and sea transportation can support the development of the Belakang Padang District. The proposed sequential exploratory approach was adopted, in which qualitative data were collected before quantitative data. This made it possible to pave way for the quantitative phase where the research questions were addressed adequately depending on the findings highlighted in the qualitative phase.

Study Design

The study was conducted using a sequential exploratory design where the first part involved the conducting of qualitative data collection aimed at identifying possible themes which were then followed by the quantitative part. This design was relevant as it allowed the research to decipher the contextual aspects of the Belakang Padang District and then measure the problems observed in the area asex quantitative data collection. The study was divided into two phases: Part One (Exploratory): In this phase, the researcher went around making initial impressions with an aim of determining spaces/ things of cultural importance. Phase Two (Quantitative): In this phase, survey data were gathered by employing a structured survey instrument in order to evaluate the opportunities of the maritime sectors and their influence on the planning of the regions.

Sampling Strategy

In the qualitative part, purposive sampling was used to identify significant cultural heritages and experienced people about the heritage and the seascape of the Belakang Padang District. Thus, based on the materials that were reviewed and evaluated, the criteria for selection of the sites were as follows: Historical significance; Community participation; and Site open to the public. For the quantitative part, purposive sampling was also used in order to identify the

respondents who are engaged in fisheries, maritime tourism or sea transportation. These respondents were the fishers, business people, tourism stakeholders and government authorities. In the quantitative phase of the study a total of 200 participants were administered questionnaires.

Data Collection

Phase 1: Qualitative Data Collection

The first form of data collection was observational data which was quantitatively obtained from different cultural heritage sites in the Belakang Padang District. The idea behind this phase was to inventory and evaluate these sites in terms of their heritage potential for subsequent use in regional development. To facilitate the observation data collection, the research team employed an observation guide that has been synthesised from past research on cultural heritage tourism. Some of these considerations are listed below; Historic & Architectural Features Were Among the Specific Criteria That This Guide Incorporated.

Observations were made through field trips done within two months where the researcher noted down 15 of the recognized heritage sites. These sites included heritage structures, cultural and traditional sites, and local markets. Observations on the condition of each site was made and any related social or cultural values obtained during each visit were also noted down in detail. In some cases, general interviews with the surrounding people and those taking care of the historical places were conducted in order to provide more information about the significance of the historical sites and their usage among the community. The participants were interviewed with their consent, and the information collected was in the form of documented tape-transcriptions.

In addition to the observational data, photographs were taken to record the sites and the states they were in. These images were also employed to triangulate the field notes and complement the qualitative data analysis. As for the ethical issue, the authors followed the general ethical rules by making sure that all people presented in the photographs and all conversations provided their informed consent.

Phase 2: Quantitative Data Collection

The qualitative phase was followed by a development of a structured questionnaire that collected quantitative data on the potential of fisheries, maritime tourism, sea transportation, and community participation in regional planning. The questionnaire was divided into four sections: The key elements include demography, fishery resource capacity, marine tourism, and people's involvement in contributing to regional development.

Demographic Section: This section gathered demographic characteristics of the respondents; their age, occupation, education level, and experience in marine activities. **Fisheries Potential Section:** Specifically, questions in this section addressed the economic enhancement that fisheries create in the region, problems of fishermen, and the extent of cooperation with local authorities. They were asked to scale their opinions about the availability of resources, the likelihood of the fishery products market, and the current level of sustainable fishing. **Maritime Tourism Section:** This section evaluated the status of the maritime tourism in the Belakang Padang District at present and in the future. These questions were aimed at determining the respondents' perception on tourism facilities and developments, the number of tourists, role of the community in tourism and the attractiveness of the district in attracting tourists. **Community Participation Section:** This section I have concentrated on the extent of the community participation in the planning of the regions. Some of the questions were regarding the frequency

of the respondents' attendance of local government meetings, the awareness of regional planning measures, and decision-making.

The questionnaire was given to 200 participants within a three months' duration. There was both face-to-face and online administration of questionnaires; the face-to-face surveys were conducted in strategic sectors of the community namely the fishing harbors, local markets, and tourist attraction sites. In cases where it was difficult to administer the questionnaire face-to-face the online version was used. More specifically, the respondents were explained carefully and in detail about the objectives of the research and why their contribution was valuable. The participants in the present study also provided their full consent to participate before data was being collected.

Instrument Validation

The questionnaire used in this study was developed based on a review of literature and subjected to validity and reliability testing among a pilot sample. There were thirty respondents from a neighboring district which has the same maritime characteristics as this study during the pilot test. Part of the measures used in this study was a pilot study that was aimed at giving an understanding of any confusion or challenges that may be found in the implementation of the questions that were asked.

Internal consistency was used to measure the reliability of the instrument by applying Cronbach's alpha coefficient. Cronbach's alpha was also computed and was found to be greater than 0.7 for each of the three aspects of the questionnaire namely: fisheries potential, maritime tourism and community participation. 7, indicating good reliability. Moreover, the content validity was established by consulting with the experts in maritime economics, regional planning as well as tourism development. These experts also reviewed the developed questionnaire so that they will ensure that there were no cohort from the topic under research left uncovered and that the questionnaire is relevant for the local setting.

Data Analysis

Data gathered and collected during the observation phase were analysed using thematic analysis. Specific topics that can be associated with interest towards cultural heritage, community engagement, and the socioeconomic value of region's development were distinguished and grouped. The research findings from this analysis were used to design the quantitative part of the study; the questionnaire.

The quantitative data was analyzed, with the help of multiple regression analysis to evaluate the effects of Fisheries, Maritime Tourism and Sea Transportation on regional planning. Regional planning was the dependent variable in the study while fisheries potential, maritime tourism, sea transport, and community involvement were independent variables. Categorized data were analyzed using percentages, while the quantitative data were analyzed using the statistical package social sciences (SPSS). Checking assumptions of regression analysis the current study affirmed normality of residuals, linearity, exclusion of multicollinearity and autocorrelation.

Results and Discussion

Cultural Heritage and Its Role in Regional Development

Through the field observations, there was found to be a number of cultural resources which comprise of archaeological temples, fishermen's old towns and religious places with cultural importance. But there were few signs of governmental involvement and proper conservation

measures to protect these sites and the infrastructural integrity of many sites was rather questionable. It has been clearly seen that the community itself was involved in preserving such sites and hence the preservation of heritage was decentralized in the district; however, there was lack of well-defined programs for the purpose, which prevented from exploiting them for tourism.

In this case, culture and heritage attributes enlighten the relative impacts that culture and heritage have towards the advancement of the regions as a whole. It is clear that cultural heritage features not as a passive component but performs as an active force in the formation of socio-economic and cultural character of the district. The findings relation shows disparities where on one hand the Egypt's heritage has huge tourism potential but on the other there are no legal frameworks to protect, market and mainstream this heritage into the tourism sector. This absence implies the requirement of a more complex approach to the planning of the regions taking into consideration both moral and ethno cultural significance of heritage as well as its tourist opportunities for the economic benefit.

Furthermore, the responsibility the stakeholders and the community plays towards the preservation of such sites demonstrates a cultural stewardship on their part. But it does not have any sort of governmental structure and therefore lacks enough resources to maintain such attempts. This limitation brings out the main problem in development planning, which is the fact that while the human aspect is critical, there must be support from institutional frameworks offering frameworks, technical knowledge and direction. Heritage tourism if well managed forms a catalyst for diversification because it and leads to tourism development while improving people's consciousness and pride as well as promoting cultural identity. The case of Belakung Padang District the problem is that it has developed within an organic frame of reference based on community initiative aimed at establishing cultural tourism rather than transitioning to a more formal, financially and institutionally sustainable managerial system based on cultural and other values that are of importance for regional growth and development.

Public Participation in the Planning Process for Regions

Many of the fishermen and local shop owners hoped for active participation in regional planning of the district. However, there was a sentiment of the marginalized from the formal elite decision making fora reoccurring. While people expressed the desire to participate in the formation of the future of the district, they complained of exclusion by the government that rarely conferred with the community in the development of the region.

This paper takes a brief overview of community participation as one of the key instruments in the sustainable regional development with special emphasis in the areas of the combined local knowledge practices and cultural practices that are basic to the community local economy. The analysis of the provided qualitative data which can be built on the comparison of the goals of the local people and available planning procedures indicates the existence of an inherent conflict in the process. The exclusion of the community in making the decision affects the inverse of the regional planning and validity and sustainability of the development programs.

From theoretical perspective, this sort of disconnection can be analyzed through the lens of participatory development theory where it emphasises the involvement of the local community in the developmental planning processes. If the stakeholders get sidelined, it becomes possible that policies formulated by the government are not in touch with the ground reality suffered by the community. In the case of Belakang Padang, these two areas may differ, and the district might end being developed in ways that do not meet the needs of the society hence the slow growth of the district.

To address this, regional planning cannot simply pay lip service to being community based, but it should be community based more than it is. This could be operationalized by means of local planning committees, which involve community members in planning being set to make key decisions. It is an approach that makes planning more democratic and also makes certain that development policies reflect the best cultural and social values. Community participation in decision-making could improve the solidity of authorities' attempts in regional development and bring sustainable results in the framework of region's specifics.

Challenges in Maritime Tourism Development

The study also revealed that the utilisation of maritime tourism resources in Belakang Padang District was still in its infancy. Infrastructure at the beaches and docks, especially those related to the scope of tourism, was either neglected or non-existent. Further, discussions with the local boat operators and other tourism players established a missing out of equipment and human capital in the formation of tourism services. In general, local communities have tried to develop tourism on their own, but because of the lack of financial and technical resources, these developments fail.

Maritime tourism development in Belakang Padang is determined in one way or the other by the following economic potential and structural constraints. On one hand there are good prospects as the district is natural resource-rich with good maritime potential and the tourism sector has potential to boom. Nevertheless, minimal development of infrastructure and the absence of governmental support acts as constraints which restricts the sector's growth. Based on the qualitative data it can be seen that despite the endeavors by local actors to promote tourism there is lack of funding, lack of professional staff, and ineffective marketing campaigns.

The theoretical concepts of tourism development do not exclude the interaction between the infrastructure development, preparation of the necessary capacities, and targeted promotion. From the case of Belakang Padang, it can suggest that although the tourism strategy is important in animating community participants, there must be profound improvements in physical capital as well as Human Capital developments. It may, for example, involve government campaigns to enhance accessibility to tourist destinations as well as the establishment of tourist amenities and professional development of the locals working within the tourism industry. In addition, the failure of local stakeholders and government authorities to work together prescribes the need for integrated approach to tourism planning and management; where the participation of locals enrich the general planning frameworks.

The lack of development of maritime tourism in the district may also be explained by the problem of distribution of resources and income in the economies. Thus, the bald claims that people's activities make up for the lack of governmental support championed by community-based organizations re-creates a pathway of underdevelopment whereby people are left to their own devices in organization and management of their tourism enterprise. Hence, tourism has to evolve to a more meaningful economic indicator for regional development with government assuming more of an intermediary role-an enabler of the right infrastructure and institutions.

Economic Reliance on Fisheries

It should be noted that fishing Industries were also found to be a major economic activity in the region and the fish markets and fishing villages. But they said their major setback sources were with regard to ineffective fishing tools, volatile fish resource base and restricted market in the districts other than the current district. This means that the sector remains dependent on

traditional fishing practices while governmental support towards modernization has been wanting hence limiting the sector's growth opportunities.

Fishing activities being one of the main sectors in Belakang Padang are both potentiality and problematic in terms of development. On one hand, it can be seen that the sector has entrenched itself within the local economy and is a stabilising force for activity. On the other hand, the limitation recognized in qualitative data including obsolete equipment, environmental pressures and market access highlight system constraints that requires to be fixed in order to enhance productivity of the sector.

The evidence indicates that, in terms of practices applied, the fishery sector function in a conventional manner that has limited innovative tendencies. The reliance of these countries on these techniques reduces productivity and hampers the economic diversification. On this account, modernisation is not just a process of getting better equipment and improved technology but also getting linked to the global value chain in the fisheries sector. This would involve setting up of a borrowing institution that ensures that they organize loan for the formation of cooperatives that would open access to regional and international markets, training in sustainable fishing, and investment in cold chain as a way of preserving fish products for export markets.

Support given to the fisheries sector plays a large role in the matter of government involvement. This unless the authorities provide sector-specific funding for infrastructure, technology and access to the markets, this embryonic industry will remain constrained and unable to contribute to regional development. The data also show that there is a necessity of the comprehensive approach to the fisheries development with the environmental issues in mind. These challenges such as overfishing and environmental degeneration if not corrected could frustrated the development of the sector as well as the goals and ideals of the district.

Regional Planning and Environmental Concerns

Littering was a common theme identified from the observations done with respect to the environment with a more marked impact being observed to be in the coastal regions. Some of the observations made included; Industries in the district contributed to pollution and substandard disposal of wastes thus pointing to the declining standards of the districts environmental health. The local respondents raised concern on whether the existing economic activities more so the tourism and fishery can sustain in the near future with the current status of the environmental management.

Based on the environmental issues seen in Belakang Padang District it is clear that economic development could often come with a very steep price in terms of the impacts on the natural environment. From the obtained data, it can be evidently observed that local actors have been increasingly developing concern over the environmental consequences affecting the future of the district's development. Environmental degradation, inadequate handling of wastes and depletion of resources, affects not only the environment but also the economic sub-sectors that depend on it for instance, fishery and tourism.

From the collaborative regional planning point of view, the above conclusions call for mainstreaming environment as an interface of development. The above features suggest that the district is predominantly endowed with natural resources for economic uses and hence requires a stable economic development that also conserves the environment for sustainable use. This can be considered in the light of the theory of sustainable development, which encourages the use of other development models that will satisfy the needs of other individuals

in the present world without leading to shortage of resources required for satisfying the needs of the next generation.

To this end, the regional planning embraces the necessity for developed regulations guarantying the protection of the environment. This could include; increasing the level of compliance with pollution controls, increased spending on waste disposal technologies and instruments, and encouraging environmentally friendly measures in the sectors like tourism and fishery. Non-solution of these issues leads to long-term environmental impacts, which will in one way or the other be costly for the economic prospect of the district. From the operational qualitative data, it is evident that the local actors have the understanding of these risks In the absence of synergistic government planning and action, the environmental depreciation will thwart the development prospects of the district.

The following table gaives descriptaion statistics for major variables used in the study. Some of the statistics used here are the mode, the standard deviation and the variation range for each of the variables so as to have an overall impression of the data.

Table 1. Descriptive Statistics for Key Variables

Variable	N	Mean	Standard Deviation	Minimum	Maximum
Fisheries Potential	200	3.76	0.89	1.50	5.00
Maritime Tourism	200	3.45	0.92	1.00	5.00
Sea Transportation	200	3.62	0.87	1.75	5.00
Economic Activity	200	3.88	0.91	1.00	5.00
Community Participation	200	3.72	0.95	1.25	5.00
Regional Planning	200	4.10	0.84	2.00	5.00

The findings from the descriptive analysis indicate that on average respondents had a relatively high mean of 4. 10 towards regional planning, and relatively low standard deviation suggesting some degree of consensus. Relative to the first two factors, the potential of the fishery and the economic activity were also evaluated quite high, with means of 3. 76 and 3. 88 respectively which show the degree of perceived importance of the sectors towards the development of the district. The result show that maritime tourism and sea transportation got slightly lower mean values indicating that there is still a lot of room for improvement when it comes to those two factors.

Table 2. Impact of Fisheries on Regional Planning

Model	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	Std. Error	Sig.
(Constant)	5.189	-	1.866	0.007
Fisheries Potential	0.723	0.683	0.083	0.000

It was clear by a beta coefficient of 0 that the fisheries sector had a strong and positive influence on the planning for development of the regions. 683 and a significance value of 000. Findings of the analysis showed that an increase of one billion rupiah in fisheries potential results in a increase of 723 million rupiah in regional planning. This goes along way in supporting the empirical evidence that fisheries is one of the significant sources of earning in the district as well as in the region.

Table 3. Impact of Maritime Tourism on Regional Planning

Model	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	Std. Error	Sig.
(Constant)	5.189	-	1.866	0.007
Maritime Tourism	0.404	0.302	0.152	0.009

Self-employment also improved regional planning with maritime tourism have a beta coefficient of 0. 302 and significance level of 0 Table 3 shows a correlation coefficient of According to the above results, the calculated ‘t’ value is 302 and the significance level is 0. 009. Maritime tourism capacity was found to increase regional planning by 404 million IDR when tourism potential is increased by 1 billion IDR. Despite the fact that the sector is still at a nascent stage, the potential impact of this sector’s development for regions cannot be disregarded.

Table 4. Impact of Sea Transportation on Regional Planning

Model	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	Std. Error	Sig.
(Constant)	5.189	-	1.866	0.007
Sea Transportation	0.239	0.175	0.206	0.024

Sea transportation exhibited a positive influence in the regional planning with the beta value of 0. 175 and a significance value of 0. 024. As the sea transportation infrastructure rises a billion IDR, regional planning also rose by about 239 million IDRs. That is, this effect is less than that of fisheries and tourism activities, but nevertheless, it can be considered as a contribution to regional development.

Table 5. Impact of Economic Activity on Regional Planning

Model	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	Std. Error	Sig.
(Constant)	5.189	-	1.866	0.007
Economic Activity	0.174	0.144	0.110	0.006

Combined economic impact of fisheries, maritime tourism, and sea transportation which represents overall economic activity has a positive and significant influence over the regional planning. The level of beta value as 0. 144, and significance level of 0. 006 that economic activities impact the development of the regions with maritime activities having a positive impact of regional development. This is an incrementation; in other words, for increasing economic activity by 1 billion IDR, regional planning increases by 174 million IDR.

Fisheries as a Cornerstone of Regional Development

Fishing became the biggest overall input towards regional planning according to both the qualitative and the quantitative results. This finding is, therefore, in line with the existing literature where fisheries are found to be the most significant input in the coastal areas particularly in the developing countries (Sarkar et al., 2021). But the issues identified show a worrying structural problem within the fisheries sectors such as worn out fishing tools, lack of market access and other environmental degradation issues. These constraints are general and not specific to Belakang Padang also as evident in the other small-scale fisheries worldwide (Osseweijer., 2006).

This hampers the development of this sector since most practices used in fishing are inapplicable thus reducing the productivity of the sector. It has been evidenced that

improvement in fishing practices along with proper resource utilization enhances the economic returns of small-scale fishery sector (Stacey et al., 2021; Cochrane, 2021). In the case of Belakang Padang, targeted interventions like issuing modern fishing equipment, infrastructure on cold chain, and the formation of cooperative formed for larger market building could helped the sector to realise its potentiality.

At the same time, spatial management of fisheries should take into consideration environmental factors that fit regional planning. Some of the pressing issue highlighted by the respondents' included over fishing and environmental degradation which are universal issues with fisheries dependent communities across the world (Coulthard et al., 2011; Mathew, 2003). In particular, it is argued that ecosystem approach to the management of resources implies that the ecosystem health as well as the economic growth should be taken into consideration in the management practices (De Jonge et al., 2012; Soto et al., 2007). Thus, continuing the adoption of sustainability into the fishery management practices is essential for Belakang Padang as well as for the purpose of promoting indefinitely sustainable regional development of fisheries sector.

Maritime Tourism: Untapped Potential

There are however signs that maritime tourism could be the most promising economic activity that has not been fully explored in the local fisheries. This concurs with other research in showing how the role of tourism continues to increase significantly in coastal and islands' economies (García-Romero et al., 2023; Rogerson & Rogerson, 2020). But at a present time the development of tourism destinations in Belakang Padang is still weak, therefore tourism does not play a considerable role in deciding making of the region at the moment. The absence of an array of infrastructures including accommodation, food, and beverage outlets and transport was echoed in the qualitative data and was a universal problem found in most developing tourism destinations. Hence, it is a necessity that the growth of maritime tourism in Belakang Padang involves coordination of infrastructure gaps with capacity constraints. It has been noted that for successful tourism development in coastal areas massive capital investment is needed in transport, facilities such as hotels and other relevant tourist services (Mejjad et al., 2022). Also, the important component is needed for further capacity-building programs for local tou operators in order to be capable to benefit from tourism development (Poa & Sawu, 2024; Bellato & Cheer, 2021; Ghaderi et al., 2018). This is important especially in Belakang Padang where local people are already involved in tourism activities but mostly with little capital and technical base to expand the developments.

Furthermore, the integration of cultural heritage in to the development of tourism can be viewed as one of the great opportunity available for the district. Cultural heritage tourism is a functional niche market with potentials of regional development through the integration of culture for economic diversification and revitalization (Telfer, 2002; Wondirad et al., 2021). From the case of Belakang Padang, one can conclude that the cultural resource of the district, if protected and advertised, could be the foundation to the proper development of the tourist industry in the region. However this would call for an effort that would address issues of culture heritage conservation, enhancement of physical access to sites, and production of tourism products in a bid to capture the domestic as well as the international market (Buckley, 2018; Timothy & Nyaupane, 2009).

Community Participation: The Missing Link in Regional Planning

The findings also tell that there is now absence of community engagement with the process of regional planning. In fact, when the community of Belakang Padang was asked how they want

to be involved in this situation as many of them wanted to be involved in the decision making process, it was revealed that there were no formal ways in which community engagement would take place. This can be compared with the results of the investigations of the principles of participatory development, where it is stated that community engagement is not considered in the context of the application of the top-down model (Sanga et al., 2022; Geekiyana et al., 2020). Apart from the representation of local actors into the planning processes, community capacity enhancement to engage in developmental planning forms the basis of the good regional planning as postulated by (Balsas, 2022).

Participatory planning calls for the formation of the local planning committees and the mechanisms for the participatory governance at the people's level (Namatama, 2020; Fischer, 2021). Hence, around Belakang Padang, incorporating the community in the process of regional planning may bring positive results in terms of development credibility and resilience. It has been established that where communities embrace development planning, the outcome of the planning and development is likely to reflect the needs of the local people and in turn results in better social and economic returns (Clausen & Rudolph, 2020). Furthermore, it was agreed that the participation of communities in the development of tourism increases shares of the social advantages as well as enhances the sense of responsibility of tourists to the utilized resources (Yusuf et al., 2023). In case of Belakang Padang, the local tourism associations should be educated and engaged to participate on the subject of tourism and be involved in the decision-making process of the tourism strategies resulting to increase and sustainable development. This however needs a transition from the present elite dominated model of governance to a bottom-up, people involved, model of governance, although civil society has been known to act in a highly influential manner,

Environmental Sustainability: A Critical Component of Regional Planning

Pollution and proper disposal of wastes were some of the environmental degradation that came out clearly in the qualitative data. This is in consonance with studies done on the rest of the world's coastal areas where development drives exploitation and degradation of natural resources and the environment (Aldasoro-Said et al., 2021). Environmental problems affect Belakang Padang most of all because the district depends on the cultivation of natural resources as a base for their economic activity, such as fishing and tourism.

An integration of environmental sustainability in development and planning of the regions can help pave way for sustainable existence of these sectors. The literature on sustainable development has stressed the imperative of relatively short time horizons and of development more models that take account of the interdependences between economic growth and environmental conservation (Simo-Kengne, 2022). Concerning environmental degradation in Belakang Padang, these problems call for even greater enhancement of the regulatory measures including the better system of waste disposal and the popularization of environmentally friendly measures in relation to the leading branches of the economy (Fan & Fang, 2020). Lack of these measures the district can impose great harm to the resources that in fact contribute to its fortunate economic perspective. The idea of 'blue economy' development for the effective utilization of the sea resources for economic development, poverty eradication and employment generation with special reference to Belakang Padang According to the Guerreiro (2021) following are the global characteristics: With the help of the concept of the blue economy, the further development of the fisheries and maritime tourism in the district might be achieved with small negative effects on the environment and with desired long-term impacts.

Therefore, the conclusion one can make based on this study is that in order to optimise the development of Belakang Padang, regional development integrated framework is required. To

these areas of economic activity, participation of the communities in the utilization of their resources, maritime tourism, and fisheries should be given as often as possible with consideration to the sense of sustainability of their ecosystem. This is supported by the literature on integrated coastal zone management (ICZM), which promote the general development of coastal areas while in imputing social, economic and ecological considerations (Yusheng et al., 2024). There is a need to have an integrated regional development strategy focusing on the area of Belakang Padang covering fisheries modernization through investment on equipment and infrastructure, investment focusing on tourism sector and investment in human and institutional capital, where environmental considerations should be a cross-cutting factor in the planning process. The integration of ICZM principles in this area along with emphasis on participatory governance and sustainable economic development could be considered as development strategies for the district's further development.

Conclusion

From the study therefore, it has been seen that fishing activities, marine tourism, and community contribution play a crucial role in the development of the Belakang Padang District. A synthesis of the quantitative and qualitative data indicates that economic endeavours, culture and the natural environment jointly shape the regional planning of the district. Agriculture, which is the main economic activity in the country is challenged by the poor techniques adopted in fish production and limited market. Maritime tourism, as already identified, is an emerging industry within the Pacific but has yet to be marketed and developed fully which, in the event that critical infrastructures and human resources capacities are bolstered, has room for growth in the future. The study also important deficiency that most of the community participation in the study and hence recommend that more effective and participatory governance models are required to sustain the development of the region in the future that is relevant to its culture. One of the issues identified entailed environmental sustainability where there was pollution and provides management that put the sustainability of fisheries and tourism at risk. For a community such as Belakang Padang that relies most of its livelihood from the sea, an integrated regional development plan that supports economic renewal, environmental conservation and social interaction would be needed to unlock the potential of maritime power. This strategy has to be complemented by sustainable development with future development not to harm the district environment and its cultural value. The implementation of such an integrated system Supplementary to the global principles of sustainable development in Kenya as well as the blue economy strategies set to support the district unlock the prospects of resilience for sustainable prosperity.

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