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Developing Marine Tourism Policy Pathways: The Case of Super Priority Marine Tourism Destinations in Labuan Bajo, Indonesia

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blue economy, methodology combines a participatory approach and multi-policy analysis methods (MULTIPOL), marine tourism development, sustainable development of coastal areas

ABSTRACT

The theme of this research is focused on developing a sustainable economic policy model in Labuan Bajo-Komodo Indonesia. The background is because currently, problems have occurred that have threatened the sustainability of marine resources and marginalized local communities which threatens their welfare. Therefore, this research aims to improve this condition through developing a sustainable economic policy model based on marine tourism. The policy model being developed is urgently needed because the research location is a Super Priority Tourism Destination (SPTD) which acts as a central area for national strategic economic growth. The research methodology combines a participatory approach and multi-policy analysis methods (MULTIPOL). A multi-stakeholder participatory approach is carried out through focused discussions as a way to explore and agree on information regarding criteria, policy scenarios, policies and policy actions. Multi-stakeholder discussions produced 9 criteria, 3 scenarios, 6 policies and 8 policy actions along with their importance weight values. The results of the MULTIPOL evaluation are the novelty of this research, namely that each blue economy policy scenario requires support for the performance of a certain set of policies and policy actions, and there are policies and policy actions that require performance support for each scenario.

1. INTRODUCTION

In 1986, the UNESCO World Heritage Committee recognized the Komodo Island ecosystem and its surroundings as a human and biosphere reserve. Further acknowledging its global significance, the area was designated as a World Heritage site in 1991 and named one of the 7 wonders of the world in 2012. Recognizing the critical importance of sustainable development in this area, the President of the Republic of Indonesia officially designated the Labuan Bajo-Komodo region as a Super Priority Tourism Destination (SPTD) during a significant cabinet meeting held on July 15, 2019, in Jakarta. This designation emphasizes the region's role as a pivotal center of national economic growth, strategically leveraging marine tourism as its primary economic driver, as outlined in Government Regulations No. 13 of 2017 [1] and No. 32 of 2019 [2].

Administratively, the SPTD of Labuan Bajo - Komodo encompasses parts of West Manggarai Regency in East Nusa Tenggara Province and a portion of Bima Regency in West Nusa Tenggara Province (refer to Figure 1).

Historically, Labuan Bajo was a modest trading port, facilitating exchanges for the populations of the surrounding islands and the mountainous regions on the mainland of Flores. Today, Labuan Bajo has transformed into a vibrant hub, attracting tourists and business owners from around the globe, thus becoming a melting pot of diverse cultural backgrounds [3]. The dynamics of city infrastructure development reflect Labuan Bajo's evolving role as a center of national significance [4].

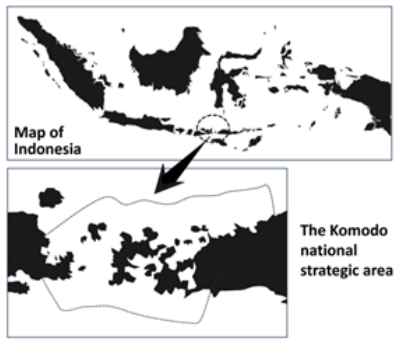
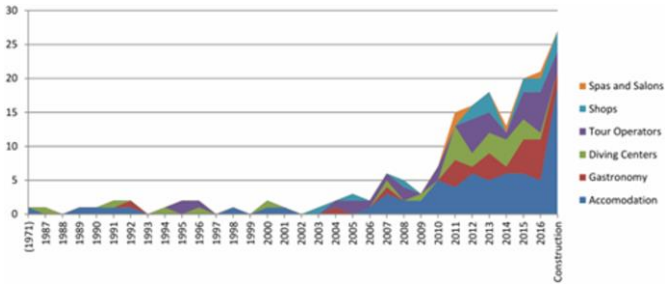


Figure 1. Location of study area

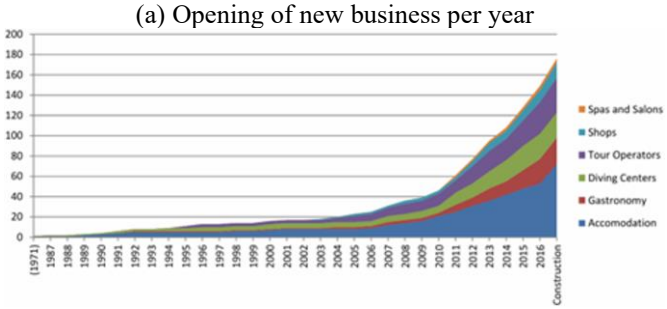
From 2015 to 2018, tourist visits surged by 400%, climbing from approximately 61,000 to 163,000, with a foreign to domestic tourist ratio of 60:40. By 2023, Labuan Bajo is projected to have welcomed over 423,847 tourists, predominantly foreign [5]. The goal for 2024 is to attract

around 1 million tourists, with estimates pointing to 400,000 foreign and 600,000 domestic visitors [6]. Natural attractions and the pricing of tour packages have been significant contributors, accounting for 34.9% of tourist visits to the area [7].

The increasing number of tourist visits to SPTD Labuan Bajo-Komodo has had a positive impact on the development of tourism businesses [8] (as shown in Figure 2) which is followed by employment, providing alternative livelihoods for local residents [9], increasing local revenue, employment, and gross domestic income [10]. The contribution of the tourism industry in West Manggarai Regency to the increase in Regional Original Income in 2017 reached 125 billion rupiah or increased from 4.08% in 2014 to 4.45% in 2015 and 4.76% in 2017. This increase was obtained through the number of visits tourists from tickets and hotel taxes [4].



(a) Opening of new business per year



(b) Number of businesses (accumulated)

Figure 2. Development of tourism businesses [8]

Apart from providing an economic contribution, the increase in tourist visits to the Super Priority Tourism Development (SPTD) Labuan Bajo-Komodo has also given rise to environmental, social and economic problems, namely: (a) tourism destination management is not integrated; (b) rapid changes in conditions are not responded to quickly; (c) lack of coordination & synergy between stakeholders; and (d) there is no consensus on a unified platform for community welfare, social, economic and environmental benefits.

These four facts have triggered problems, namely: (a) the increasing need for clean water for hotel/tourist accommodation activities has triggered a scarcity of clean water for the community [11]; (b) the community does not have access and bargaining power over water compared to tourism activity managers; (c) people become victims of rising water prices [12, 13]; (d) the privatization of coastal land by investors for tourism businesses; (e) has turned local community fishing areas into diving locations; (f) the unfeasibility of catching stingray fish species due to a decrease in size [14]; (g) local communities are marginalized because they are unable to compete with foreign investors in the tourism sector and cannot switch from fishing activities to tourism activities [15]; (h) changes in land use tend to shift from residential areas to tourist attractions, cafes and restaurants to reach built-up areas of 14.3% [16]; (i) changes in lifestyle and changes in educational orientation [9]; (j) has triggered the exploitation of natural resources which has the potential to threaten the conservation of Komodo dragon (*Varanus komodoensis*) habitat [17]; (k) threatens ecosystem preservation and limits the livelihood of local fishermen [18, 19]; (l) there has been a decline in the income of local communities/fishermen in Labuan Bajo [4, 15].

The fact is that the implementation of existing development policies at SPTD Labuan Bajo-Komodo, apart from still having a negative impact on the environment, society, and economy, is also not yet able to realize good tourism development management. The conditions created are the opposite, namely: (1) tourism destination management is not integrated; (2) rapid changes in conditions are not responded to quickly; (3) lack of stakeholder coordination and synergy; and (4) there is no consensus on a unified platform for community welfare, social, economic and environmental benefits. Tourism development management is only concentrated in certain institutions and coordination between stakeholders is also poor, which has resulted in misinterpretation of authority among stakeholders. This situation further complicates the problem of maximally mobilizing resources to spur efficient tourism development [20].

The inventory of past development policies applied to the research locations reveals a prevailing sectoral approach in conservation and tourism (Table 1). Addressing the current challenges at these sites, and simultaneously fostering improved and sustainable conditions for the future, requires moving beyond a solely sectoral and top-down policy formation process. Consequently, this research aims to develop an economic policy model rooted in tourism activities that are comprehensive (multi-sectoral), participatory (involving multiple stakeholders), and dynamic (adaptable to changing decision-making factors). It is anticipated that the outcomes of this research will bridge existing gaps and align with recommendations from prior studies. Specifically, it seeks to establish a clear, directed policy framework that represents a consensus among multiple stakeholders, enhancing community welfare and the social and economic benefits derived from development efforts [21].

Table 1. Policies and status for research location

No.	Date	Declaration/Policy Regarded to the Status of Location
1	1915	Regulations to protect Komodo dragons from hunting and capture for residents of the Bima Sultanate, 12 Maret 1915 (proposed by Dr. S.H. Koorders)
2	1927	Regulations to protect Komodo dragons from hunting and capture for residents of the Manggarai kingdom (proposed by Dr. S.H. Koorders)
3	1927	Decree Resident of Timor on January 22, 1927 No.27 concerning the protection of Komodo Island and Rinca Island to protect Komodo animal
4	1932	Wild Animal Protection Ordinance and Nature Reserves and Wildlife Sanctuary Ordinance of 1932

5	1938	Zelfbestuur van Manggarai, Verordening No.32/24 September 1938 concerning the Establishment of the Padar Island Wildlife Reserve, the Western and Southern Parts of Rinca Island
6	1939	Resident van Timor en onder horigheden No.19/27 January 1939
7	1965	Decree of the Minister of Forestry No.66/Dep.Keh/1965 dated October 21, 1965 regarding the Designation of Komodo Island as a 31,000 Ha Wildlife Reserve
8	1969	Decree of the Governor of KDH Tk. I Nusa Tenggara Timur No. 32 of 1969 dated June 24, 1969 concerning the designation of Padar Island, Rinca Island and Wae Wuul/Mburak Land as Tourism Forests/Nature Reserves covering an area of 20,500
9	1980	On March 6, 1980 the Minister of Agriculture designated the areas of Komodo Island, Rinca Island, and Padar Island as National Parks covering an area of 40.728 Ha
10	1986	UNESCO designation as a biosphere reserve
11	1991	UNESCO designation as a World Heritage site
12	1992	Decree of the Minister of Forestry No. 306/Kpts-II/92 dated February 29, 1992 concerning the National Parks of Komodo Island, Padar Island, Rinca Island, and the surrounding marine waters covering an area of 132.572 Ha
13	1993	Presidential Decree No. 4 of 1993 concerning National Animals and Flowers, the position of Komodo is placed as a national animal
14	1993	The government prepares guidelines for the Biodiversity Action Plan for Indonesia
15	1994	Ratified the United Nations Convention on Biological Diversity through Law No. 5 of 1994
16	2000	Decree of the Minister of Forestry and Plantations No. 172/Kpts-1/2000 dated June 29, 2000, further strengthens KNP as a nature conservation area
17	2000	Master Plan for 25 Years of Komodo National Park Management on July 4, 2000
18	2003	Indonesian Biodiversity Strategy and Action Plan 2003-2020
19	2006	Decree of the Director General of PHKA Number: SK.128/IV-Sek/2006 concerning Amendment to the Decree of the Director General of PHKA Number. SK 69/TV-Set/HO/2006 appointed the appointment of 20 National Parks as Model National Parks
20	2006	Presidential decree on the determination of protected areas covering land and sea areas with a total area of 1,817 square kilometers
21	2008	Determination of Labuan Bajo-Komodo as a National Strategic Area in Government Regulation Number 26 of 2008 concerning National Spatial Planning
22	2011	Recognition of the Real Wonder of the World Foundation Komodo National Park as the Real Wonder of the World
23	2011	Government Regulation of the Republic of Indonesia Number 50 Year 2011 About National Tourism Development Master Plan Year 2010 - 2025
24	2012	Recognition as New 7 Wonders of Nature by New Wonders Foundation in 2012
25	2015	Determination of Indonesian Biodiversity Strategic and Action Plan 2015 - 2020
26	2015	CNN named Komodo National Park the "World's Best Snorkeling Destination" in 2015
27	2017	National Geographic, in its July 2017 issue entitled 100 Best Destinations even put Komodo National Park in the list of the 10 best destinations in the world
28	2018	Presidential Regulation 32 of 2018 concerning the Authority for the Management of the Labuan Bajo Flores Tourism Area in April 2018
29	2019	Determination of Labuan Bajo Komodo as a National Strategic Anu in Government Regulation Number 32 of 2019 concerning Marine Spatial Planning

The research objectives are: (1) to produce policy criteria, scenario policies, policies and action policies to address problems that occur at the research location while realizing sustainable economic development; (2) to present scenarios, policies and policy actions against criteria that are in accordance with stakeholder opinions and agreements; (3) to produce a collection of policies and policy actions that provide performance support for the desired scenario; and (4) to find policies and policy actions that are key factors in the success of the desired scenario.

The research framework is shown in Figure 3. Related to the 1st research target, the following research stages are carried out:

- The initial stage is a review of regulations, policies, and a review of previous research results at the research location. The objective is to map the conditions of the research location related to the impact of development policies that are currently being implemented.
- The next stage is to categorize issues based on the principles of the blue economy, namely: planet (environment), humans and peace (social), and prosperity and partnership (economic). Categorizing issues is very important as a basis for compiling a checklist of issues for discussion in stakeholder FGDs.
- The next stage is to conduct stakeholder FGDs to enrich, sharpen, round out issues, as well as formulate, assess, agree and give weight to policy criteria, scenario policies, policies, and policy actions.

Related to the 2nd research objective, the following research stages are carried out: Information regarding scenarios, criteria, policies, and action policies that have been agreed upon in stakeholder FGDs including their respective weights are inputted into the MULTIPOL computer program. Using the MULTIPOL tool, an evaluation of the suitability between each scenario, policy, and policy action with the policy criteria is carried out in order to obtain information regarding the suitability of each value with the criteria. The greater the correspondence value, the better.

Related to the 3rd target, which is to produce a collection of policies and policy actions that provide performance support for the desired scenario, then using the MULTIPOL tool, the following research stages are carried out:

- First, an assessment of the performance of each policy action against each policy is carried out. The results of the assessment are in the form of information on the performance of each policy action against each policy, including information on the distance between the policy action and the one that shows the efficiency of policy performance against the policy.
- Second, an assessment of the performance of each policy is carried out against each scenario. The results of the assessment are in the form of information on the performance of each policy against each scenario, including information on the proximity between the policy and the scenario that shows the efficiency of the policy's performance against the scenario.

- Third, clustering is carried out based on the proximity between policy actions and policies, and between policies and scenarios.
- Fourth, a policy is prepared that is determined based on proximity clusters that include scenarios, policies, and policy actions.

Related to the 4th target, namely to produce information on key success factors for policies and scenarios. Key policy actions or key policies are determined by considering the average score value from the highest to the lowest. Policy actions or policies that have a high score value or are close to all scenarios or all policies, then the policy or policy action is a key success factor.

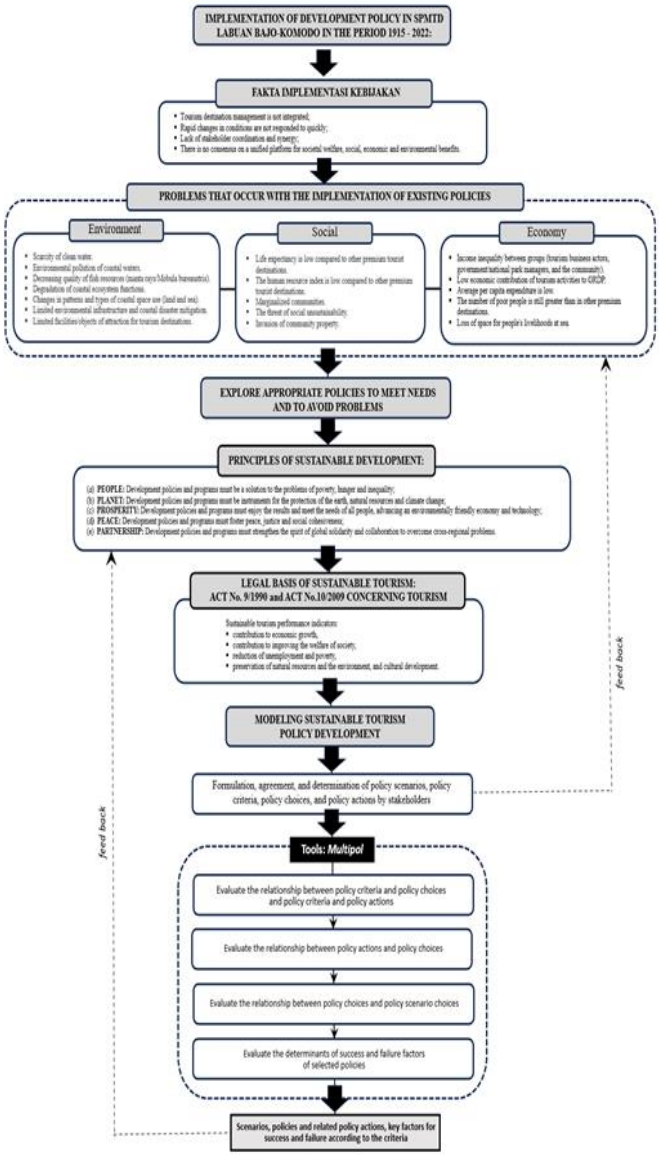


Figure 3. Research framework

2. LITERATURE REVIEW

Sustainable tourism is defined by the World Tourism Organization (UNWTO) as tourism that takes into account current and future economic, social and environmental impacts, responding to the needs of visitors, the (tourism) industry, the environment and local host communities [22]. Sustainable tourism is an integrated and organized effort to develop the quality of life by managing the provision, development, utilization and maintenance of natural resources and cultural values in a sustainable manner [23-25].

The concept of sustainable tourism is multidimensional and cannot be separated from the four principles of sustainable development, namely the principles of sustainability of natural resources and the environment (planet), social culture (people and peace), and economic development (prosperity and partnership) [26-29]. In other words, sustainable tourism has keywords, namely: (a) balance, (b) equality, (c) coordination, and (d) participation [27, 28].

Furthermore, to evaluate the success of the sustainable tourism development plan [30] uses indicators: (1) local community aspects (the extent to which the surrounding community has experienced progress in welfare); and (2) aspects of tourism quality (the extent to which the environment can be maintained in the long term).

For a development policy to be sustainable, it must align with the principles of sustainable development and emphasize stakeholder collaboration as the foundation for consensus-based decisions [31]. The principles of sustainable development include people, planet, prosperity, peace, and partnership, encapsulated in their seventeen associated goals.

Regarding sustainable tourism development policies, it is essential to adhere to the stipulations set forth in Law Number 9 of 1990 and Law Number 10 of 2009 concerning Tourism. These laws specify that the benchmarks for assessing sustainable tourism development should not solely focus on economic growth but also encompass contributions to community welfare, reductions in unemployment and poverty, preservation of natural resources and the environment, and cultural development.

Furthermore, in formulating a sustainable marine tourism policy model, it is crucial to incorporate the principles of the blue economy. This approach requires that all exploitation of marine resources associated with tourism activities be conducted sustainably to enhance economic growth, community welfare, and the health of marine ecosystems. This is mandated by Law Number 32 of 2014 on Maritime Affairs and articulated in the UNCSD blue economy paper [32].

A sustainable economy requires a holistic approach that encompasses economic equality, social inclusivity (where community participation in decision-making processes is pivotal), and environmental sustainability (focusing on long-term carrying capacities and environmental resilience) [33]. The Blue Economy is defined as an economic model that harnesses the sustainable use of marine ecosystem services to achieve sustainable development goals [34, 35]. In Indonesia, the principles of the Blue Economy are mandated by law and must be implemented accordingly [36]. A sustainable economy also serves as a strategic development framework that sets limits on the rate of natural ecosystem utilization and the extraction of natural resources. This strategy takes into account the technological and socio-economic conditions affecting resource use, as well as the biosphere's capacity to absorb the impacts of human activities [37].

There are five aspects explained in the report, including: (i) encouraging growth in five focus areas, including blue energy, aquaculture, coastal and marine tourism, blue biotechnology, seabed mineral resources, (ii) benefits of marine data, spatial planning, and maritime surveillance to facilitate blue economic growth, (iii) encouraging a partnership approach, (iv) increasing investment, and (v) creating a blue growth strategy that is in line with future challenges [38].

Table 1 shows that development policies in Labuan Bajo-Komodo from 1915 to 2022 have not comprehensively met the principles of the blue economy, and are known to have had negative impacts on the community and its environment. The community as one of the stakeholder elements will be involved together with other stakeholders to collaborate in the process of developing a sustainable tourism policy model.

Collaboration of stakeholder components, such as the government, local government, local communities, business actors, and environmental/gender activists will greatly determine the success of this research in producing an appropriate policy model. Stakeholders have to play a role in exploring and formulating problems, as well as exploring, formulating, agreeing, and determining scenarios, policies, policy actions, and policy criteria through an effective FGD process. The process to develop a sustainable policy model through stakeholder collaboration is shown in Figure 4.

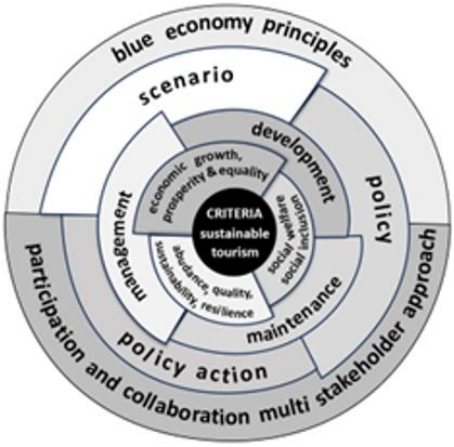


Figure 4. Sustainable tourism was conceptualized for this research

3. METHOD

This research is descriptive qualitative research. Data and information were collected by means of focused discussions with multi-stakeholders related to the research location. The types of data used in this research are primary data and secondary data. Primary data was obtained through data collection techniques with group discussions or Focus Group Discussion (FGD) using the "World Cafe" (WC) method followed by multi-level stakeholder representation [39], namely local communities, district governments, provincial governments and central government, the business world, universities and non-governmental organizations.

To obtain structured and comprehensive data, in the FGD implementation process, in addition to grouping stakeholders to help explore and verify discussion themes in a participatory and comprehensive manner that represents the representation of various stakeholder groups, it is also guided by a facilitator who has a role other than to organize all discussion participants, provide complete and correct information without any domination by certain stakeholders. Policy data/information that emerges during the FGD process can have the potential to provide benefits to participants, because it facilitates dialogue and mutual learning, thereby motivating their participation and responses [39].

Data collection activities were carried out in two stages, namely: (1) the first stage, a thematic discussion focused on local stakeholders at the research location on 26-27 April 2022; (2) the second stage, stakeholder focused thematic discussion in the provincial capital on 25-26 May 2022. In the FGD, policy criteria, policy, and policy actions were agreed upon by stakeholder.

The MULTIPOL is used to help evaluate the consistency between criteria and policies and to determine the factors that are the main obstacles to failure and the main prerequisites for policy success. MULTIPOL is an analytical tool for decision making related to policy based on the principles of Multi Criteria Decision Analysis developed by Fauzi [40]. The formulation of criteria and policies (scenario, policies, policy actions), the data/information analysis process, and the process of drawing conclusions with the MULTIPOL analysis tool as shown in Figure 5 is a research design whose procedures are very precise, objective, and consistent.

The basis for entering the evaluation method of the Multi-Criteria Policy consists of:

- Evaluation criteria, defined as measurable aspects of the assessment by which the dimensions of the various possible options considered can be characterized.
- Scenario, defined as a structured future development, in which the goals set for the problem can be achieved.
- Policy, as a strategy for achieving objectives in a particular planning exercise, is closely related to the political, social, economic, and physical context, in which evaluation takes place.
- Policy actions, relating to potential interventions, aimed at the implementation of various policies.

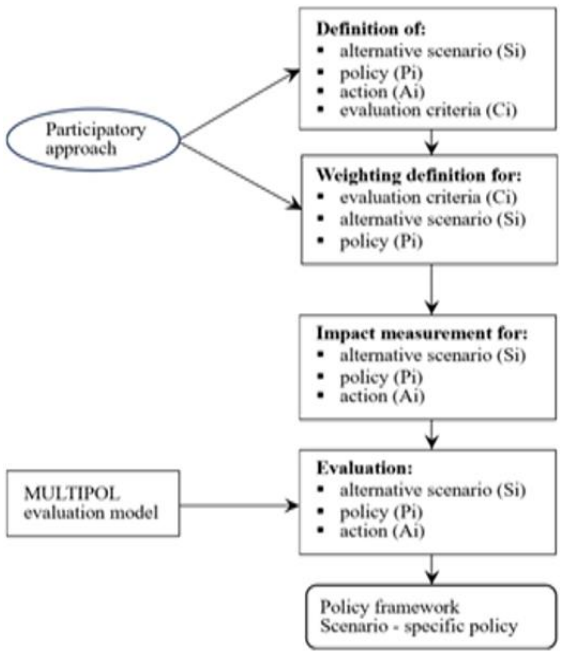


Figure 5. MULTIPOL analysis stages

The following are the stages of strategy formulation using MULTIPOL:

- Stakeholder during FGD determines and agrees with the policy for the development in the research location which is input into the policy matrix against the criteria.
- Stakeholder also determines and agrees with actions of policy for developing in the research location to realize predetermined policies that are input into the actions matrix against the criteria.
- Stakeholder determines and agrees with the criteria for the

development of the research location.

- The matrix for filling actions against the following criteria.

The FGD themes which have been prepared, namely:

- Actual problems in the Labuan Bajo-Komodo area (economic, social, and environmental) and as expected the future conditions (natural resources, income, business opportunities, education and skills, and so on).
- Barriers faced by the community in participating in the process of formulating and establishing regulations that have an impact on their lives, as well as the desired processes of participation (including communication and information systems, transparency in the formulation and decision-making process regarding regulations, and so on).
- Obstacles faced by business world associations in the efficient and transparent process of obtaining business permits, as well as hopes for improving the licensing system to make it more efficient, including transparency, digitization, efficiency of the licensing process, and so on).
- The conflict problems currently occurring in the process of operationalizing development policies by cross levels of government (central, provincial, district) with specific/sectoral policy themes for the interests of each institution.

The criteria for FGD stakeholder participants are:

- Representing multi-fields/sectors of tourism development, infrastructure, providing employment opportunities and improving the quality of human resources and gender, management of coastal waters and the environment, licensing of business and investment activities.
- Representing various levels of government, starting from the central government (ministries), provincial government, district government, sub-district government, to village or sub-district government.
- Representing various interest groups or various components in society, namely local community groups, business world associations, gender activist groups, religious leader groups, indigenous community stakeholder groups, youth groups, environmental groups and university intellectual groups.

4. RESULTS

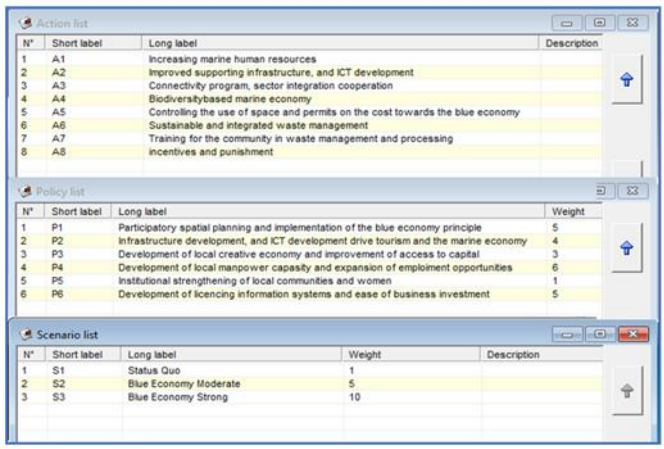
Based on the needs of stakeholders to improve current conditions, it was determined and agreed a set of criteria, policies, policy actions, and scenarios through FGD stakeholder as shown in Figures 6 and 7.

Stakeholder agreed to give high priority to the criteria of "Reducing conflicts over the use of marine space (C8)", the criteria of "Increasing economic growth (C1)", and the criteria of "Increase public understanding regarding ecosystem damage and waste". Among the policies, stakeholders agreed on the policy "Developing local human resource capacity and expanding employment opportunities (P4)" which is the highest priority, followed by the policy "Participatory spatial planning and implementation of the blue economy principle (P1)" and policy "Development a licensing information system and increasing ease of business investment (P6)" and also policy "Infrastructure development and ICT development to drive marine tourism and marine economic (P2)". Meanwhile, the highest priority for scenario is the scenario "Blue economy strong (S3)."

Criterion list

N°	Short label	Long label	Weight
1	C1	increasing economic growth	6
2	C2	increasing blue economy with zero waste	4
3	C3	Increased public understanding regarding ecosystem damage and waste	5
4	C4	Reduced ecosystem damage	2
5	C5	Encourage marine protected areas	1
6	C6	Increased value added for fishery products	1
7	C7	Increased multiplier effect for surrounding areas	3
8	C8	Reducing conflicts over the use of marine space	9
9	C9	Improved marine spatial planning according to its intended use	2

Figure 6. Criteria agreed upon by stakeholders



Action list

N°	Short label	Long label	Description
1	A1	Increasing marine human resources	
2	A2	Improved supporting infrastructure, and ICT development	
3	A3	Connectivity program, sector integration cooperation	
4	A4	Biodiversitybased marine economy	
5	A5	Controlling the use of space and permits on the cost towards the blue economy	
6	A6	Sustainable and integrated waste management	
7	A7	Training for the community in waste management and processing	
8	A8	incentives and punishment	

Policy list

N°	Short label	Long label	Weight
1	P1	Participatory spatial planning and implementation of the blue economy principle	5
2	P2	Infrastructure development, and ICT development drive tourism and the marine economy	4
3	P3	Development of local creative economy and improvement of access to capital	3
4	P4	Development of local manpower capasity and expansion of emploiment opportunities	6
5	P5	Institutional strengthening of local communities and women	1
6	P6	Development of licencing information systems and ease of business investment	5

Scenario list

N°	Short label	Long label	Weight	Description
1	S1	Status Quo	1	
2	S2	Blue Economy Moderate	5	
3	S3	Blue Economy Strong	10	

Figure 7. Set of policies agreed upon by stakeholders

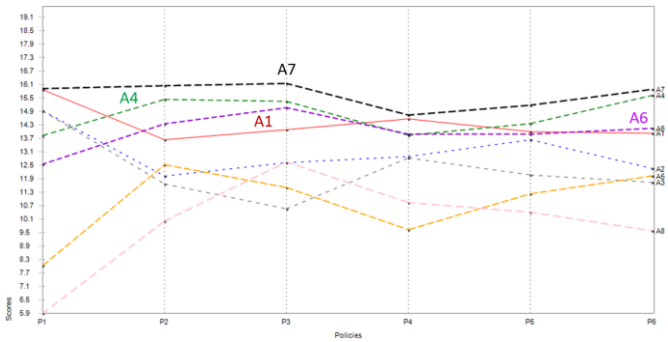


Figure 8. Action profile map

Figure 8 shows that action A7 (Training for the community in waste management and processing); A1 (Increasing marine human resources); A6 (Sustainable and integrated waste management); and A4 (Biodiversity based marine economy) have relatively strong performance support for all policies.

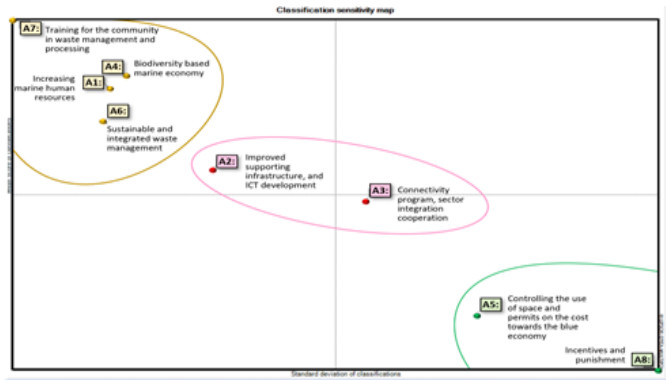


Figure 9. Action classification sensitivity map

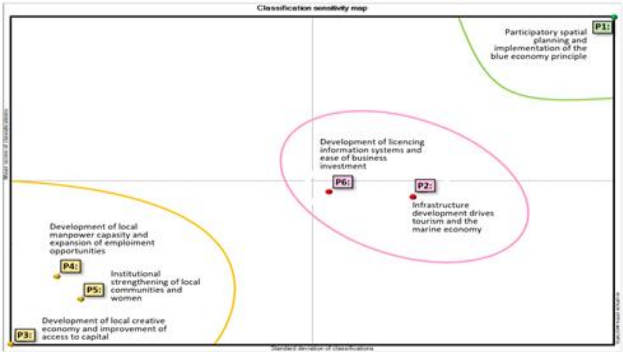


Figure 10. Policy classification sensitivity map

Figure 9 shows that policy actions are clustered into 3 (three) based on the closeness of their sensitivity, namely policy action clusters A1; A4; A6; and A7; policy action clusters A2 and A3; and policy action clusters A5 and A8.

Figure 10 shows the policy grouping profile into 3 (three) groups according to the closeness of policy sensitivity, namely the P3 policy cluster; P4; and P5; policy clusters P2 and P6; and policy P1 which is outside the two clusters.

Figures 11 and 12 present the performance values of each policy for each scenario, as follows:

- Scenario S1 (Status quo); P1 is a policy that provides good performance with a policy score value of 11.5. The other policies provide performance for S1 with a score value below the P1 score.
- Scenario S2 (Blue economy moderate); P1, P6, and P4 are policies that provide good performance with policy score values respectively: 11.9, 11.1, and 11.0.
- Scenario S3 (Blue economy strong); P1, P2, P6, P4, and P5 are policies that provide good performance with policy score values respectively: 14.9; 12.9; 12.8; 11.5; and 11.3.
- Policies P3, P4, and P5 are ranked low in the hierarchy of the three scenarios, but these policies can be combined with policies P1 (first rank), P6 (second rank), and P2 (third rank) in the implementation of each particular scenario because these policies have become multi-stakeholder agreements.

Evaluation of policies with respect to scenarios

Policies/Scenarios	1 : S1	2 : S2	3 : S3	4 : Moy.	5 : Ec. T	6 : Number
1 : P1	11.5	11.9	14.9	13.8	1.5	6
2 : P2	10.2	10.8	12.9	12.1	1	4
3 : P3	10.5	10.9	10.5	10.6	0.2	1
4 : P4	10.6	11	11.5	11.3	0.3	3
5 : P5	10.8	10.6	11.3	11	0.3	2
6 : P6	10.6	11.1	12.8	12.1	0.9	5

Figure 11. Policy performance against scenarios

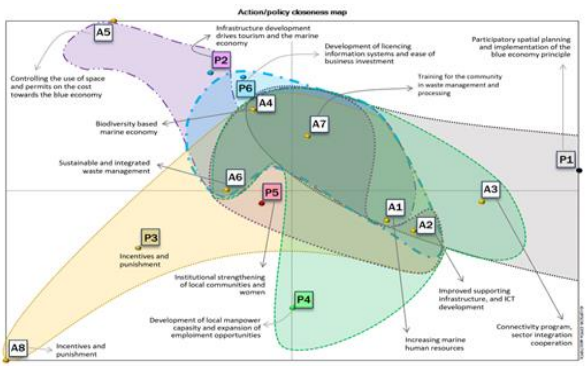


Figure 12. Action-policy profile map

In Figure 12, it can be seen that between policy and policy action there is a relationship that can be shown through a proximity cluster. It provides important information about a particular policy action that has performance support for a particular policy efficiently. The smaller the distance of a policy action from a policy, the more efficient the performance of the policy action is towards the policy.

In Figure 13, it can be seen that the results of the MULTIPOL multicriteria evaluation model have provided answers to the consequences of the policy. The results have provided answers to the consequences of policy packages along with relevant policy action packages to be implemented in achieving a desired future condition or scenario (S1: conditions do not change; S2: conditions where the blue economy is partially implemented; and S3: conditions where the blue economy is implemented with great commitment). The smaller the distance of a policy from a scenario, the more efficient the performance of the policy is towards the scenario.

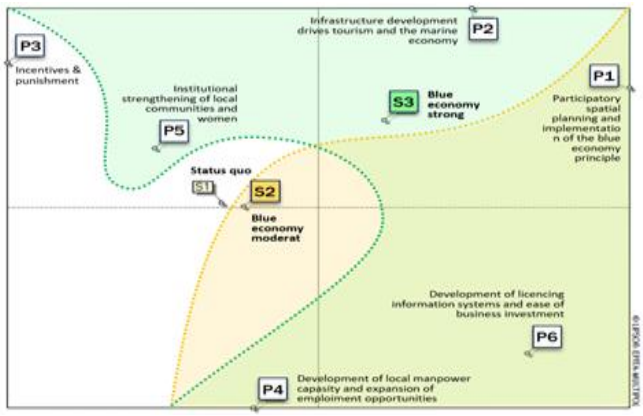


Figure 13. Policy-scenario closeness map

5. DISCUSSION

The role of P1 policy is a key policy to realize sustainable development goals, especially at the local planning level where the decision-making process is planned to involve local stakeholders. Spatial planning at the local level facilitates learning to formulate criteria, policies, and policy actions that are interactive, dynamic, and easy to evaluate [41]. The planning process by involving multiple stakeholders as applied in this research has produced an action plan that combines short-term and long-term interventions and has a great chance of getting political support because, in addition to being dynamic and adaptive to problems, it also holds a clear commitment to realizing a more sustainable environment [42].

The role of policy P6 is expected to encourage a more efficient investment climate in terms of time and cost. Implementation of policy P6, namely "Development of licensing information systems and ease of business investment" in other places has proven to be effective and efficient due to the establishment of Standard Operations and Procedures for handling complaints. Community members can now submit complaints from anywhere and at any time, and they actively participate in improving public services [43].

Policy P4, namely the Development of local creative economy and improvement of access to capital, is very relevant to the research location. The goals of local economic development are to create wealth, generate jobs, increase

incomes, and, ultimately, reduce poverty and improve the quality of life for both women and men in the locality [44]. The development of a creative local economy, including activities that are circular economy in nature, can contribute to reducing environmental impact, generating green jobs, and improving productive efficiency [45].

Policy P2 has a role as the second key policy after Policy P1. The improvement in any type of infrastructure is expected to increase economic growth, raise government revenue, raise the factors' income and reduce the poverty level. Improvement in transportation and telecommunication (ICT) are still preferable options compared to others [46]. The problem of scarcity of water supply infrastructure and limited information and communication infrastructure at the research location are priority policies to achieve better prosperity [47]; the implementation of infrastructure policies has also been believed to be one of the factors that can influence improvements in national competitiveness [48]; indirectly reduces income inequality [49].

Policy P5, namely "Institutional strengthening of local communities and women" is a key policy that must be implemented in a strong blue economy scenario. This policy can include preparing local communities with the skills needed to contribute to economic development due to effective leadership, institutions, and entrepreneurship which will play all important roles [50].

Based on the results of the analysis of the closeness relationship between the set of policies and the set of policy actions as shown in Figure 12, it can be seen that there are 6 (six) clusters of closeness relations between policies and policy actions. It should be underlined that policy action A7 (Training for the community in waste management and processing) is the policy action that has the best performance support for the six policy clusters. After policy action A7, there are A4 (Biodiversity based marine economy) and A1 (Increasing marine human resources) resources) which is also another key to success for several policy clusters.

The three key policy actions (A7; A4; and A1) and three key policies (P1; P6; and P4) urgently need to be implemented at the research location. Based on the results of previous studies, there are very relevant problems at the research location related to the three key policy actions, including unemployment, and low income [4, 8, 15, 18, 19].

6. CONCLUSION

Figure 14 presents a framework of potential policy combinations along with their respective policy actions to achieve each scenario's future conditions. Based on the results of the analysis, the following can be seen:

- Policy P1 is the main policy that must be implemented in each scenario condition.
- Policies P4 and P6 are important policies for implementing a blue economy.
- Policies P2 and P5 are supporting policies for implementing a strong blue economy.

The results of this study show that two scenarios of development could be used as leverage for sustainable marine tourism in the area. These are the strong blue economy scenario and, the moderate blue economy scenario. Both scenarios lead to different policy pathways to be implemented in the area. In the strong blue economy scenario, five main policies must be executed with commitment (P1; P2; P6; P4; and P5).

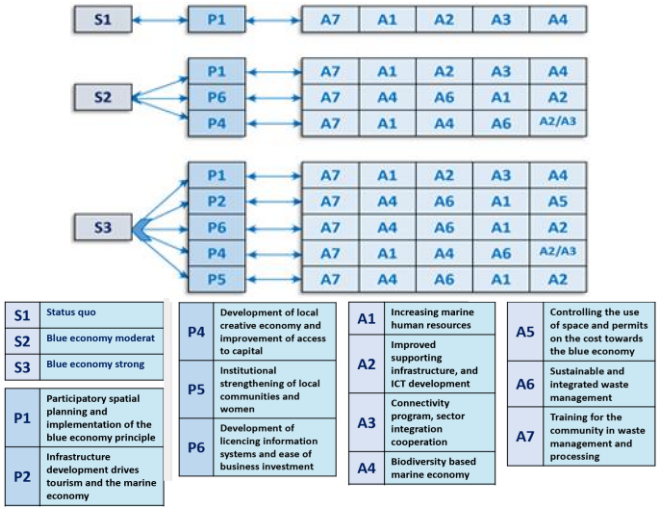


Figure 14. Research finding

Meanwhile, if conditions do not yet allow for the implementation of a resilient blue economy scenario with these five policies, then a moderate blue economy scenario can be implemented, namely with only three policies. The three policies policies P1, P6, and P4 have an important role as described above.

The implementation of these alternative scenarios is very flexible, and highly dependent on future internal and external changes and also differences in location. The flow of marine tourism development in undeveloped small island areas, such as in Labuan Bajo; Raja Ampat (Papua); Wakatobi (South East Sulawesi); Mandalika, Gili Matra (Lombok Island); Tanjung Kelayang (Belitong Island); 1000 islands; Lagoi Bay (Bintan Island); etc., really requires comprehensive, dynamic, and adaptive scenario planning and development to prevent the waste of valuable resources [51], including financial and human resources. Therefore, this study offers a policy flow that can be used as a framework for marine tourism policy in Labuan Bajo and other similar coastal tourist destinations [52].

6.1 Benefits of research results

The results of this study are in the form of a collaborative multi-stakeholder and synergistic multi-objective policy model, so it is very useful as input for designing innovative policies at the national and local levels. Good synergy between the central government and local governments will have a positive impact on strengthening sustainable tourism development [53]. Currently, local communities are very interested in the government immediately issuing regulations/policies that can protect the interests of the community in overcoming the pressures of situations that have marginalized them [4].

There are 2 crucial benefits of the findings of this study, *first,* this research approach method can be input to complement the decisions of ministers, governors, regents, or mayors regarding technical guidelines for planning sustainable tourism development policies in a comprehensive, participatory, coordinative, and adaptive manner. *Second*, the findings of this research have been and will be directly incorporated into the formulation of development program indications in the form of (a) national strategic regional spatial planning policies, (b) provincial spatial planning plans, (c)

district/city spatial planning plans, and (d) medium-term development plan policies for West Manggarai Regency, East Nusa Tenggara Province and Bima Regency, West Nusa Tenggara Province, Indonesia.

6.2 Method limitations

Stakeholder FGD and MULTIPOL analysis greatly determine the quality of the results of this study. The quality of stakeholder FGD results is greatly influenced by 3 factors, namely: (1) stakeholders, (2) facilitators, and (3) discussion themes. The first factor, stakeholders involved in the discussion must be the right people (have a good understanding of the conditions of the area), otherwise, the FGD process will find it difficult to achieve its targets. Multi-stakeholder discussions are the right communication media for all stakeholder elements involved as discussion participants to understand the problem and align expectations from various stakeholder perspectives (economic, environmental, and social) and various scales (local and national). The second factor, the facilitator must be chosen as someone who, in addition to understanding the regional conditions and being communicative, also understands the various regulations needed.

The effectiveness of achieving discussion goals and the efficiency of using discussion time are largely determined by the facilitator's ability to oversee the multi-stakeholder discussion process. Third, the discussion theme must be sharp and comprehensive. The discussion theme is compiled based on the findings of previous research results, both in the form of problem issues and regional potentials that cover environmental, social, and economic aspects.

The implementation of the FGD in this study fortunately met the three factors above, considering that in addition to taking the right time, it was attended by participants from bureaucratic elements, local communities, business actors, environmental activists, gender figures, and was also facilitated by local universities and central government officials, so that the process can run smoothly up to 3 FGDs in a period of 2 years (2022-2023). As a consequence, sufficient funding is needed to meet the three factors above. The results of the MULTIPOL analysis are greatly influenced by 2 factors, namely: (1) the quality of information from stakeholder FGD results, and (2) the complexity of the information analyzed. The quality and complexity of the information are closely related to the quality of the implementation of stakeholder FGD. If the participants, facilitators, and themes of stakeholder FGD are not appropriate, then it is likely that accurate information or sharp and concise information will not be obtained.

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REFERENCES

[1] Republic of Indonesia Government Regulation Number 13 of 2017 concerning Amendments to Republic of Indonesia Government Regulation Number 26 of 2008 concerning National Regional Spatial Planning. https://www.hukumonline.com/pusatdata/detail/lt5911b42b24b35/pp-no-13-tahun-2017-perubahan-atas-peraturan-pemerintah-nomor-26-tahun-2008-tentang-rencana-tata-ruang-wilayah-nasional/.

[2] Republic of Indonesia Government Regulation Number 32 of 2019 concerning Marine Spatial Planning. https://faolex.fao.org/docs/pdf/ins192277E.pdf.

[3] Ardhyanto, A., Dewancker, B. (2019). Vernacular architecture transformations of coastal labuan bajo. In International Journal of Innovation for Sustainable Maritime Architecture Research and Technology, Proceedings of FCC2019 Smart, Healthy and Livable-The 1st International Conference on the Future of Coastal Cities, pp. 153-156.

[4] Kodir, A., Tanjung, A., Astina, I.K., Nurwan, M.A., Nusantara, A.G., Ahmad, R. (2020). The dinamics of access on tourism development in Labuan Bajo, Indonesia. Geo Journal of Tourism and Geosites, 29(2): 662-671. https://doi.org/10.30892/gtg.29222-497

[5] Ardin, A. (2024). https://travel.detik.com/travel-news/d-7129317/lebih-dari-400-ribu-traveler-kunjungi-labuan-bajo-di-2023-wisman-mendominasi.

[6] Pratiwi, F. (2023). As many as 800 thousand tourists visit Labuan Bajo. https://ekonomi.republika.co.id/berita/s5jnzs457/.

[7] Kodir, A, Tanjung, A., Sumarmi, S., Ahmad, R., Simanjuntak, T.B. (2019). Tourism governance in Komodo National Park, Indonesia: Blessing or curse? GeoJournal of Tourism and Geosites, 27(4): 1401-1417. https://doi.org/10.30892/gtg.27424-443

[8] Remmer, S., Achmad, I. (2017). Tourism impacts in Labuan Bajo. Bali: Swisscontact WISATA (in Indonesian).

[9] Kiwang, A.S., Arif, F.M. (2020). Perubahan sosial ekonomi masyarakat Labuan Bajo akibat pembangunan pariwisata. Gulawentah: Jurnal Studi Sosial, 5(2): 87-97. https://doi.org/10.25273/gulawentah.v5i2.7290

[10] Yudhoyono, E.B., Siregar, H., Achsani, N.A., Irawan, T. (2021). The impact of tourism on the economy and community welfare in Labuan Bajo Area, Indonesia. International Journal of Sustainable Development and Planning, 16(2): 385-393. https://doi.org/10.18280/ijsdp.160219

[11] Ahmad, R., Nurmawati, K.M., Kodir, A. (2021). Air dan konflik: Studi ketersediaan sumber daya air di kawasan taman nasional Komodo. Jurnal Ilmu Sosial dan Humaniora, 10(2): 337-350. http://doi.org/10.23887/jish-undiksha.v10i2.30379

[12] Cole, S. (2017). Water worries: An intersectional feminist political ecology of tourism and water in Labuan Bajo, Indonesia. Annals of Tourism Research, 67: 14-24. https://doi.org/10.1016/j.annals.2017.07.018

[13] Dwipayanti, N.M.U., Nastiti, A., Johnson, H., et al. (2022). Inclusive WASH and sustainable tourism in Labuan Bajo, Indonesia: Needs and opportunities. Journal of Water, Sanitation and Hygiene for Development, 12(5): 417-431. https://doi.org/10.2166/washdev.2022.222

[14] Asut, H., Hamdani, H., Dewanti, L.P. (2019). Analysis of stingray catches which landed in fish landing site of Labuan Bajo, West Manggarai Regency of East Nusa Tenggara. World News of Natural Sciences, 24: 89-99.

[15] Alysia, V., Kurniawati, E.E., Aini, A.F., Yudha, A.T.R.C.

(2022). Eksplorasi sumber daya alam dan ketahanan ekonomi lokal (Studi literatur pada destinasi wisata Labuan Bajo). Journal of Economics Development Issues (JEDI), 5(1): 549-560. http://repository.uinsa.ac.id/id/eprint/2468/.

[16] Luru, M.N., Ramadhani, A., Sitawati, A., Situmorang, R., Suharto, B.B. (2021). Tourism attraction transformation and impacts on the physical development of Labuan Bajo city. IOP Conference Series: Materials Science and Engineering, 1098(5): 052062. https://doi.org/10.1088/1757-899X/1098/5/052062

[17] Ardiantiono, Jessop, T.S., Purwandana, D., Ciofi, C., Jeri Imansyah, M., Panggur, M.R., Ariefiandy, A. (2018). Effects of human activities on Komodo dragons in Komodo National Park. Biodiversity and Conservation, 27(13): 3329-3347. https://doi.org/10.1007/s10531-018-1601-3

[18] Qori'ah, S.M. (2016). Marginalisasi di kota Labuan Bajo. In Pariwisata, Pembangunan, dan Keadilan Agraria di Flores, pp. 31-38. http://arc.or.id/wp-content/uploads/2017/02/Pariwisata-pembangunan-dan-Keadilan-Agraria-di-Flores-Seri-Pertama-2016.pdf.

[19] Somerpres, K.B. (2016). Ironi pengawasan dan pengelolaan pulau dan pesisir didalam dan di sekitar kawasan Taman Nasional Komodo. In Pariwisata, Pembangunan, dan Keadilan Agraria di Flores, pp. 13-18. http://arc.or.id/wp-content/uploads/2017/02/Pariwisata-pembangunan-dan-Keadilan-Agraria-di-Flores-Seri-Pertama-2016.pdf.

[20] Damanik, J. (2016). Lack of stakeholder partnerships in destination management: Lessons learned from Labuan Bajo, Eastern Indonesia. Asian Journal of Tourism Research, 1(2): 173-198.

[21] Widaningrum, A., Damanik, J. (2018). Stakeholder governance network in tourist destination: Case of Komodo National Park and Labuan Bajo city, Indonesia. In 2018 Annual Conference of Asian Association for Public Administration:" Reinventing Public Administration in a Globalized World: A Non-Western Perspective" (AAPA 2018), pp. 451-463. https://doi.org/10.2991/aapa-18.2018.42

[22] UNWTO. (2013). Sustainable tourism for development guidebook, enhancing capacities for sustainable tourism for development in developing countries. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_dialogue/@sector/documents/publication/wcms_216669.pdf.

[23] Peraturan menteri Kebudayaan dan pariwisata Republik Indonesia nomor PM.04/UM.001/MKP/2008 tentang sadar wisata. https://jdih.maritim.go.id/cfind/source/files/permenparekraf/kemenbudpar/peraturan-menteri-kebudayaan-dan-pariwisata-nomor-pm-04-tahun-2008.pdf.

[24] Sulistyadi, Y., Eddyono, F., Hasibuan, B. (2017). Model of sustainable tourism development strategy of the Thousand Islands Tourism Area–Jakarta. Journal of Economics, Management and Trade, 19(1): 1-17.

[25] Angelevska-Najdeska, K., Rakicevik, G. (2012). Planning of sustainable tourism development. Procedia-Social and Behavioral Sciences, 44: 210-220. https://doi.org/10.1016/j.sbspro.2012.05.022

[26] Casagrandi, R., Rinaldi, S. (2002). A theoretical approach to tourism sustainability. Conservation Ecology, 6(1): 13.

[27] Dewi, S.P., Ristianti, N.S. (2021). Sustainable rural tourism meaning for community livelihood. Jurnal Teknik Sipil dan Perencanaan, 23(2): 83-93. https://doi.org/10.15294/jtsp.v23i2.29320

[28] Noor, A.A., Pratiwi, D.R. (2016). Konsep pengembangan pariwisata berkelanjutan di kampung buyut cipageran (kabuci) kota cimahi. Prosiding Industrial Research Workshop and National Seminar, 7: 178-183. https://doi.org/10.35313/irwns.v7i0.219

[29] Rahayu, S., Megasari, M., Saragih, G. (2022). Pengembangan Pariwisata Berkelanjutan. CV Tungga Esti, Medan-Indonesia.

[30] Magas, D., Basan, L. (2007). Tourism destination management company (DMC): A central actor of a destination as a milieu. Tourism and Hospitality Management, 13(3): 615-626. https://doi.org/10.20867/thm.13.3.8

[31] Islahuddin, I., Akib, H., Eppang, B.M., Salim, M.A.M., Darmayasa, D. (2021). Reconstruction of the actor collaboration model in the development of marine tourism destinations in the new normal local economy. Linguistics and Culture Review, 5(S2): 1505-1520. https://doi.org/10.21744/lingcure.v5nS2.2013

[32] UNCSD. (2012). Blue economy concept paper, pp. 1-13. https://sustainabledevelopment.un.org/content/documents/2978BEconcept.pdf.

[33] Fauzi, A. (2004). The role of natural resources in development. In Ekonomi Sumber Daya Alam dan Lingkungan, pp. 1.1-1.22. https://pustaka.ut.ac.id/lib/wp-content/uploads/pdfmk/ESPA431702-M1.pdf.

[34] Adrianto, L., Eisner, N., Situmorang, A. (2019). Blue Economy Development Index: A Conceptual Framework. Archipelagic and Island States Forum.

[35] Patil, P.G., Virdin, J., Colgan, C., Hussain, M.G., Failler, P., Vega, A. (2018). Toward a blue economy: A pathway for sustainable growth in Bangladesh. Journal of Ocean and Coastal Economics, 6(2).

[36] Law Number 32 of 2014 of the Republic Indonesia Concerning Maritime Affairs. https://www.fao.org/faolex/results/details/en/c/LEX-FAOC161826/, accessed on Jun. 12, 2024.

[37] Dahuri, R., Rais, J., Ginting, S.P., Sitepu, M.J. (2008). Pengelolaan sumber daya wilayah pesisir dan lautan secara terpadu, Jakarta: PT. Pradnya paramita. https://onesearch.id/Record/IOS3966.INLIS000000000000188.

[38] Wenhai, L., Cusack, C., Baker, M., et al. (2019). Successful blue economy examples with an emphasis on international perspectives. Frontiers in Marine Science, 6: 261. https://doi.org/10.3389/fmars.2019.00261

[39] Löhr, K., Weinhardt, M., Sieber, S. (2020). The "World Café" as a participatory method for collecting qualitative data. International Journal of Qualitative Methods, 19: 1609406920916976. https://doi.org/10.1177/1609406920916976

[40] Fauzi, A. (2019), Teknik Analisis Keberlanjutan. Jakarta (ID): PT Gramedia Pustaka Utama.

[41] Faludi, A. (2000). The performance of spatial planning. Planning Practice and Research, 15(4): 299-318. https://doi.org/10.1080/713691907

[42] Silver, C. (2014). Spatial planning for sustainable development: An action planning approach for Jakarta. Jurnal Perencanaan Wilayah dan Kota, 25(2): 115-125.

https://doi.org/10.5614/JPWK.2015.25.2.2
[43] Sihombing, B.K., Dompak, T., Salsabila, L., Khairina, E. (2023). Enhancing the quality of local government public services through an integrated online licensing application. Conference on Business, Social Sciences and Technology, 3(1): 125-134. https://doi.org/10.37253/conescintech.v3i1.8368
[44] Villanueva, M., Begin-Gillis, M., Sam, K.L., Yule, A. (2014). Creating a strategic plan for local economic development: A guide. Federation of Canadian Municipalities-Caribbean Local Economic Development Project (FCM-CARILED), pp. 1-49.
[45] Novoa, R.B. (2023). The circular economy as a strategy for local economic sustainability: A conceptual approach to MSMEs. Review of Territorial, Economic and Environmental Science, 2(1): 1-26.
[46] Irawan, T., Hartono, D., Irawan, F., Yusuf, A.A. (2012). Infrastructure improvement and its impacts on the Indonesian economic performance. Journal of Indonesian Economy and Business, 27(3): 293-302.
[47] Kaupa, K. (2015). Effect of infrastructure on economic growth. In South Sumatera Province. Akuntabilitas, 9(1): 101-124. https://doi.org/10.29259/ja.v9i1.8799
[48] Palei, T. (2015). Assessing the impact of infrastructure on economic growth and global competitiveness. Procedia Economics and Finance, 23: 168-175. https://doi.org/10.1016/S2212-5671(15)00322-6
[49] Nugraha, A.T., Prayitno, G., Situmorang, M.E., Nasution, A. (2020). The role of infrastructure in economic Gro\Tth and income inequality in Indonesia. Economics & Sociology, 13(1): 102-115. https://doi.org/10.14254/2071-789X.2020/13-1/7
[50] Enaifoghe, A., Vezi, M.F., Magigaba. (2022). The sustainability of local economic development through entrepreneurship in South Africa. Expert Journal of Business and Management, 10(2): 77-90.
[51] Kabil, M., Priatmoko, S., Magda, R., Dávid, L.D. (2021). Blue economy and coastal tourism: A comprehensive visualization bibliometric analysis. Sustainability, 13(7): 3650. https://doi.org/10.3390/su13073650
[52] Kurniawan, F., Adrianto, L., Bengen, D.G., Prasetyo, L.B. (2016). Vulnerability assessment of small islands to tourism: The case of the Marine Tourism Park of the Gili Matra Islands, Indonesia. Global Ecology and Conservation, 6: 308-326. https://doi.org/10.1016/j.gecco.2016.04.001
[53] Laurentius, L.Y., Fios, F., Situmorang, S.A. (2021). Human capital analysis on regional ecotourism development program in Indonesia: Case study in Labuan Bajo-Flores-East Nusa Tenggara. In Proceedings of the 3rd International Conference on Social Sciences, Laws, Arts and Humanities, pp. 355-359. https://doi.org/10.5220/0010007900002917