Implementation of the Blue Economy Policy in Probolinggo City for the Development of the Creative Economy of Processed Fisheries and Marines

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ABSTRACT
The challenge of developing the blue economy in Probolinggo City is to maximize the utilization and processing of marine and fishery products without damaging the marine and aquatic ecosystems. For this reason, special policies are implemented in the management of the marine and fisheries sector with special reference to marine and fisheries products as the leading sector, not only as food security for local communities but also as an economic and tourism sector that can be developed in Probolinggo City. Public policy is needed to implement the blue economy in Probolinggo City. This study aimed to examine the application of the "Blue Economy" concept in fish processing businesses in Probolinggo City. The research was applied with qualitative methods. Data and information were collected from observations, literature studies, documents, research reports and scientific publications related to the research topic. These documents were analyzed in terms of content (content analysis) and viewed from the social and economic aspects, which were described qualitatively. The review results showed that fisheries and marine business actors had applied the blue economy principles by creating fishery and marine product processing with zero waste, social inclusion, innovation, adaptation, and multiple effects. This application has a livelihood advantage that can impact improving the household economy and staying focused on environmental sustainability.

A. INTRODUCTION
Entrepreneurship is important in Indonesia's economic development and growth (Khamimah, 2021). Entrepreneurship can help address social and economic challenges by overcoming the problem of poverty (Tenrinippi, 2019). In particular, Indonesia wants to achieve economic growth in global conditions that tend to be uncertain or fluctuate. The Indonesian government's strategy is to implement the empowerment of small businesses. Small businesses are expected to develop national production. This strategy is included in the Indonesian government's program, with a target of millions of young entrepreneurs by 2025 (Arisandy, 2013). Its focus on empowerment for developing and forming the quality of human resources for national entrepreneurs is advancing.

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The government is committed to increasing the number of entrepreneurs in Indonesia. The national entrepreneurship ratio target is included in the National Medium-Term Development Plan (RPJMN) (Kementerian Koordinator Bidang Perekonomian RI, 2021). The government sets an entrepreneurship target of 3.95% by 2024 (Kementerian Koperasi dan UKM, 2022). Under the mandate of Presidential Regulation (Perpres) Number 2 of 2022 concerning the Development of National Business Entrepreneurship. Strategic and integrated policies for entrepreneurship that aim for independent economic strength can contribute significantly to the gross domestic product. So that healthy, resilient, and sustainable entrepreneurship will be established (Sukirman & Indrayani, 2014).

Forms of entrepreneurship need to optimize potential and continue to innovate to develop and recognize opportunities and organize businesses in realizing ideals in entrepreneurship (Saragih, 2017). Entrepreneurial activities involve potential opportunities in the economic system (Rahim & Basir, 2019). Even MSME-based entrepreneurship is an effort to develop a sustainable economy by creating jobs, forming optimal working conditions, innovating in entrepreneurship, adapting and mitigating negative economic impacts, and social and environmental orientation for inclusive and sustainable economic growth (Kementerian Sekretariat Negara RI, 2021). Sustainable entrepreneurship needs to pay attention to the social and environmental conditions that exist in society. Entrepreneurship will be sustainable if it considers environmental sustainability (Murniningtyas, 2014). Entrepreneurship needs to act and think creatively and innovatively in shaping or building new, unique, and different things by optimizing opportunities in the environment and shaping them into products with financial income.

One of the sustainable entrepreneurship programs is oriented to the marine and fisheries sector. Indonesia has the advantage of Indonesia's sea area, including the EEZ (Exclusive Economic Zone) covering an area of 5.8 million km² with a coastline of 95,200 km. This geographical situation gives Indonesia marine biological wealth (Murniningtyas, 2014). BPS (Indonesia Statistics) and KKP data in 2021 showed that the fishery sector's Gross Domestic Product (GDP) in the first quarter of 2021 on the prevailing price reached IDR 188 trillion. The economy of the fisheries sector recorded an increase from the first quarter of 109.9 trillion in the second quarter of 2021, growing by 6%. The existence of this growth in the GDP of the fisheries sector can continue to be increased with various strategies.

Realizing new entrepreneurship with the principles of the blue economy requires resource development innovation—form development by carrying out clean production without waste. The blue economy applies ecosystem logic, where ecosystems are optimized for better levels of efficiency. Therefore, this concept is to flow nutrients and energy without waste to meet the basic needs of all parties in the system. The blue economy focuses on innovation and creativity, including product variety, production system efficiency, and structuring effective and efficient resource management systems (Ilma, 2014). The concept of a blue economy in the marine and fisheries industry efficiently manages natural resources. Production waste can be created into raw materials for other products. It means that entrepreneurial production with the principle of the blue economy is an economic activity that does not destroy the environment, and no waste or waste can be reused. This blue economy entrepreneurship program is also aligned with sustainable programs to meet the people's current consumption needs without compromising future generations' abilities.

The Probolinggo City Government develops entrepreneurship combined with optimizing the potential of natural resources while still paying attention to environmental sustainability. The use of natural resources in Probolinggo City does not necessarily damage nature. Particularly fisheries in Probolinggo City have an important role in the community's welfare, so they need to continue to be developed to produce positive economic growth. The potentials of marine products are to become a fishery sector that can support positive economic growth
in Probolinggo City. Therefore, the Probolinggo City government implements a blue economy program to support the financial sector (PPID Kota Probolinggo, 2021). The program involves all parties, including regional officials, stakeholders, Poklatsars, farmers, and fishery sector activists in Probolinggo City.

The blue economy was developed for coastal areas (Wenhai et al., 2019). This application has under the geographical conditions of Probolinggo City on the coast. The port in Probolinggo City is very strategic and has become the centre of sea route activities. PPP Mayangan is the port with East Java's biggest and largest land. In 2020, fish production at this port reached more than 12,000 tons, consisting of dim fish, Gulama, Manyung, Grouper, and Red Snapper (DPKPP Kota Probolinggo, 2022). The Red Snapper from Probolinggo City is one of the fishery products exported abroad. Fisheries from ports are directed to contribute to national fisheries exports. Mayangan Coastal Fishing Port (PPP) Probolinggo City, East Java, has good and complete basic, functional and supporting facilities. The optimization rate of Mayangan Beach Fishing Port facilities is recorded as very maximal, such as 100% land use, shipping flow data of 93.75%, utilization of port ponds in the western region of 107.27 % and eastern regions of 64.87%, TPI of 21% and optimization of docks by 100% (Prasetyowati et al., 2017). The development of the facility is carried out with the first quadrant strategy and is prioritized development in WWTP (Wastewater Treatment Plant), Cold storage and drainage.

One of the efforts of the Probolinggo City government to improve community welfare is through the use of natural resources. The city's marine and fisheries sector is a regional economic force with proper management. In particular, the city's location is very strategic, supported by port facilities and sea potentials but still maintains the sustainability of the ecosystem in the Blue Economy concept. Under the presentation above, this research will discuss the concept of blue economy-based entrepreneurship in Probolinggo City as a creative economic effort in entrepreneurship.

B. LITERATURE REVIEW

Public Policy

Public policy is the design of programs, activities, practices, decisions, and attitudes in carrying out an action step or not taking actions carried out by related parties. It is chosen to solve problems and be a solution to problems. Policies can come from actors or community groups containing program designs, activities, and decisions implemented by related parties to achieve a goal or solve problems (Haerul et al., 2016). The external form of a policy is manifested in the form of policy implementation (Wahyudi, 2016). So a public policy is formed by the government accompanied by the participation of other parties with a systemized, structured, and directed design of activities to achieve goals. Good public policy implementation requires a process of counselling, implementing, and controlling policies (Ramdhani & Ramdhani, 2017). The dimensions of public policy implementation are related to good government, including consistency, transparency, accountability, fairness, participation, effectiveness, and efficiency (Rohman, 2016).

There is also discretion in the application of public policy. Discretion is a decision in action based on stakeholders' opinions (Mustafa., et al., 2016). Discretion is the freedom to implement policies to improve public services (Pradana, 2016). Evaluation of public policy implementation is needed to determine the accountability and level of implementation of a public policy. There are three evaluation models, including evaluation at the design stage, evaluation at the application stage, and evaluation at the post-implementation stage (Diansari, 2016; Lintjewas et al., 2016).
The Concept of Sustainable Development

Law Number 32 of 2009 concerning Environmental Protection and Management, sustainable development is defined as a conscious and planned effort that combines environmental, social, and economic aspects into development strategies to ensure the integrity of the environment as well as the safety, ability, welfare, and quality of life of current and future generations. Sustainable development is a development effort that implements a strategy to maintain the number of resources with utilization limits for ecosystem sustainability (Sompotan, 2016). An important aspect of sustainable development is the development by paying attention to environmental, social, and economic aspects (Suparmoko, 2020). This means that sustainable development programs must involve environmental, political, and economic aspects. The sustainable development goals comprise social, economic, environmental, and institutional dimensions structured into 17 goals and 169 (Setianingtias et al., 2019).

Blue Economy

Awareness of the application of the blue economy as a sustainable development program is increasing with some countries implementing marine policies in the national order, including Indonesia adopting marine policies in carrying out the principle of sustainability in using marine resources and fisheries. This awareness is relevant to Law No. 17 of 2007, which lists 8 (eight) national development missions to achieve the Vision of "An Independent, Developed, Just and Prosperous Indonesia". One of these missions is "To realize Indonesia to be an independent, developed, strong, and national interest-based archipelagic country". The national development strategy to achieve the vision and mission mandated in Law No. 17 of 2007 is sustainable development with a pro-poor, pro-growth, pro-job, and pro-environment spirit. There are five main pillars of the National Marine Development Policy: Ocean Culture, Ocean Governance, Defense, Maritime Security, Ocean Economy and Marine Environment (KKP Dewan Kelautan Indonesia, 2012). These two pillars of economics and the environment are the core components of the concept of the Blue Economy.

The concept of a blue economy is essentially the same as that of an environmentally friendly green economy. It focuses on developing countries with water areas (seas), known as Small Island Development States (SIDS). The blue economy is an appropriate model to answer and overcome the damage to nature caused by exploitative industrial activities to natural resources in the 20th century (Pasaribu, 2017). The blue economy focuses on optimizing aquatic resources to increase economic growth with business and environmental sustainability activities, especially marine activities (Wenhai et al., 2019). The blue economy is an alternative solution to increasing job opportunities, food security, maintaining environmental sustainability, and prospering people in the marine environment.

There are five principles in the blue economy (Biro Humas dan Kerja Sama Luar Negeri, 2021): Economies of scale; Integrated supply chain management; Innovative technology; Inclusivity; and Environmental friendly. The blue economy aims to preserve nature and prevent decreased quality and quantity of marine resources and ecosystems. The cooperation of KKP achieved this goal through the Secretariat of the National Committee of CTI-CFF Indonesia to carry out a Regional Action Plan (RPOA) and a National Action Plan (NPOA) (Direktorat Jendral Pengelolaan Ruang Laut, 2021). The planned program includes Indonesia adopting a series of seascape management and ecosystem-oriented fisheries management with resolving the reef fish trade for consumption and establishing and strengthening the management of marine sustainability and protection areas.

Applying the blue economy concept in developing Small-and-Medium Scale Enterprises (UMKM) for fishery products in Probolinggo City adheres to the five principles of the blue economy in marine economy businesses and the application of the blue economy in fisheries...
businesses. The five principles of the blue economy in any marine economic undertaking consist of economies of scale; integrated supply chain management (production – processing – marketing); innovative technologies at every link of the business system chain; inclusive by involving local communities; and environmentally friendly. Meanwhile, the application of the blue economy in the fisheries business (Zamroni et al., 2018) consists of the principle of minimizing waste; Social Inclusion; Adaptation; Innovation; and Multiple Effects.

Creative Economy

The creative economy is concerned with a creative industry oriented towards intellectual property, creativity, and innovation capabilities. This scope of the creative economy emphasizes all parties in the economic sector, especially entrepreneurs, continue to innovate and be creative in developing businesses. Community economic business development can be applied by empowering the community, developing businesses, and using capital assistance (Wahyuningsih & Satriani, 2019). The creative economy applies concepts under the new economic era that orients on the dissemination of information and creativity. The characteristics of the creative economy are, first, the participation between creative industry actors such as academics, investors, society, and the government. Second, it is based on new ideas and initiatives that are unique, original, and ordinary. Third, continue to carry out unlimited development within the scope of business. Fourth, the concept designed is relative. It even tends to be flexible and easily adapts to the times and technological sophistication (Ratnawati, 2018).

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Entrepreneurship

Entrepreneurship is individuals' spirit, attitude, behavior and ability to handle businesses or activities that lead to discovering, creating and implementing new ways of working, technology and products by increasing efficiency to provide better services and or gain large profits. This definition is stated in the Decree of the Minister of Cooperatives and Development of Small Entrepreneurs Number 961/KEP/M/XI/1995. The Regulation also regulates efforts to empower cooperatives and SMEs (UMKM) and increase business competitiveness. Small businesses guide strategies in forming an independent, healthy, strong, competitive, self-development business. The goal is for economic growth and employment opportunities in realizing economic democracy. Strategies are implemented by building, empowering, developing, and strengthening the organization gradually and periodically. The strategy for
overcoming these challenges is not optimal because entrepreneurs or small business actors often face problems. These problems are organizations that are not yet solid; marketing is still tricky and monotonous, business capital is relatively small; the entrepreneurial spirit has not yet developed, and apathy in paying attention to the environment and service quality. Entrepreneurial values contain creativity, daring to take risks, innovation, achievements and others. This value is the principle of implementing independent entrepreneurship (Sukirman, 2017).

C. METHOD

In this study, the approach chosen was a qualitative approach, with an orientation towards natural conditions and utilizing researchers as instruments to obtain descriptive data in the form of interviews, documentation and direct observation. The research technique used is descriptive qualitative (Sugiyono, 2019). This type of research is qualitative research. Qualitative research is research carried out with phenomena on objects. The researcher becomes an essential instrument, combines data collection techniques, the resulting data is descriptive, and data analysis is conducted inductively. This research focuses more on the meaning of generalizations.

This study applies data and information such as realizing entrepreneurial activities with a blue economy principled program from the Marine and Fisheries Service Unit to drive entrepreneurship to build an economy with blue economy principles. Data sources are obtained from various literacy sources. The data sources used in this study are primary data (interviews and observations) and secondary data (archives and literature studies). Specifically for primary data collection, the informants in this research are SME owners in the marine and fishery processing sector, fisheries and marine sector activists, handicraft communities, aquaculture owners, coastal community institutions, and employees of the Probolinggo City Marine and Fisheries Service Unit. They are coupled with documentation studies and literature studies. Data validity was analyzed through a triangulation model.

In addition, the analyst method is supplemented by SWOT analysis. SWOT analysis is oriented towards strengths, weaknesses, opportunities, and threats to the entrepreneurial sector with blue economy principles. This analysis is based on logic to maximize strengths and opportunities and minimize weaknesses and threats. Factors of the external environment of opportunities and threats and the internal environment of strengths and weaknesses influence SWOT analysis. Thus the SWOT analysis can be used in making strategic decisions, especially in implementing blue economy policies in the entrepreneurial sector in Probolinggo City.

D. RESULT AND DISCUSSION

Indonesia applies the principles of developing the marine and fisheries industry through the concept of the blue economy. Starting from formulating comprehensive economic and environmental protection policies, regional economic development, realizing sustainable development oriented to waste-free production systems, and supporting creative and innovative investments (Wenhai et al., 2019). The role of local governments and other parties is needed in the form of policies, regional regulations, and even policy derivatives manifested in economic programs and community empowerment. This statement is in accordance with the presentation by Saefuddin (2015), who stated the role of the government as a regulator and infrastructure development of the creative industry (Lestari & Aprilia, 2013).

The forms of blue economy development in Indonesia include the development of the marine fishing industry, marine transportation, tourism, energy and material production based on the blue economy concept; further improvement and coordinating national policies of the marine and land economy; developing a blue economy demonstration zone; strengthening the relationship between trade and infrastructure and encouraging the development of technology.
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and human resources (Wenhai et al., 2019). The arrangement of marine space itself has been stated in the Regulation of the Minister of Maritime Affairs and Fisheries Number 28 of 2021 concerning the Implementation of Marine Spatial Planning, where in the Regulation, the state protects (1) the interests of local communities, traditional communities, and coastal communities, (2) provision of legal certainty, space certainty, investment certainty for marine space users, (3) the strategy to implement the blue economy, and (4) the control tool to realize sustainable development (Biro Humas dan Kerja Sama Luar Negeri, 2021).

Public policy implementation is maximized by government, academia, and industry cooperation by building R&D programs oriented to the user community’s needs. Collaboration of funding support and government policies will be more accurate and optimally utilized. The concept of collaboration is with academicians, businesses, communities, and government. The government can improve the regional economy by developing the dissemination rate of research results from academia, regional design, and other activities in regional development by orientating to economic development accompanied by paying attention to social and environmental conditions. It means that it is necessary to direct policies in economic development to pay attention to local wisdom (Azizah & Muhfiatun, 2017). In addition, the Probolinggo City Government can apply for its role in laws and regulations related to implementing the blue economy, including monitoring the safety of products produced and distributed; policies and regulations to support creative industry findings, innovation, and investment; and policies for collaboration between parties.

5 Blue Economy Principles In Every Marine Economic Business Applied In Probolinggo City

Economies of Scale

Economies of scale is a condition that shows minimum cost gains obtained from the expansion of business operational activities and obtaining advantages with minimum costs (low-cost advantage). The goal is to form superior business competitiveness. Economies of scale are obtained from the development process and efficiency in operational activities in all parts or sectors of the business group. The cost advantage gained by applying economies of scale comes from suppressing the average total cost of each unit of product or service by increasing the production cycle in one period.

Fish processing certainly applies the principle of economies of scale. To reduce costs by processing marine products in coastal areas or around the coast or ports. Coastal areas have great marine potential, and most coastal communities work as fishermen. Of course, there will be a lot of potential for marine products every day. The catch from the sea, such as fish, shellfish, and others, become products easily subjected to decay. The quality of marine products such as fish will decrease or worsen if they are not handled and processed appropriately after being caught (Dinas Perikanan Kota Probolinggo, 2020). The strategy for processing fresh fish is to clean and store it at low temperatures and prioritize hygiene and health factors.

Moreover, if the fish is processed immediately, storage, preservation, and packaging costs will be reduced. Places for processing, buying and selling packaging must be located around the port or coast. The reason is that they will reduce the cost of packaging, preservatives, and distribution costs.

Currently, the Probolinggo City government is conducting a spatial arrangement of the Fish Auction Place (TPI) at the Mayangan Beach Fishing Port (PPP Mayangan) to continue to be developed for the better. It aims to increase the auction and sale of fish. PPP Mayangan is the centre of capture fisheries transactions by fishermen. Then the buying, selling, and
processing process can be carried out in the Mayangan PPP area with additional fish market facilities, ice factories, and fish processing factories. So the economic activity of fishing fisheries is centred in Probolinggo City. It can automatically minimize expansion costs from business operational activities. Operational costs can be reduced when the location of TPI, Fish Market, Ice Factory, and Fish Processing Plant is in one area.

**Integrated Supply Chain Management (Production – Processing – Marketing)**

The management of processing fish and other marine products even starts from the process of catching or networking, weighing, storing and distributing and is entirely recorded by officers of the Probolinggo City government fisheries service unit (Dinas Perikanan Kota Probolinggo, 2020). Fishermen's catches will be accommodated at the middleman market in Fish auction venue. Fish will be sold as raw materials directly sold to the market, and some are processed and distributed with large parties. Fish that are directly sold in the market are fish that are for public consumption. As for the large party, it will be placed in the Fish Processing Unit.

Specifically to produce fish and marine processed products made on a small and large scale. The value of fishery production is the weight of the live fish when it is just caught. For example, the "round fresh", "round whole", or ex-water weight equivalent of the quantities recorded at the time of landing (BPS Kota Probolinggo, 2015). In Probolinggo City, more than 80 SMEs process marine products that produce potential capture fisheries in Probolinggo City.

Developing marine products in Probolinggo City involves sea-processed SMEs optimally using aspects of natural resources, human resources, production management, capital, and marketing. The role of the local government of Probolinggo City through the DKP as a technical agency in the development of processed marine products is the role of the government in production management, marketing, funding, in the form of cooperation with related agencies, in special institutions (Prameswari, 2017). The fish processing process from pre-production, production, and post-production always pays attention to quality. By paying attention to the nutritional content of fish, fish processing technology, techniques for processing fish products into hygienic food, and sanitation in production areas (Zainuri et al., 2016).

The fish processing process uses five techniques to make several processed fish and other marine products (BPSPL Denpasar, 2022). The first technique for processing utilizes physical factors such as high or low temperatures. High temperature is used for drying, fumigation, and sterilization process in fish canning, and low temperature is used for fish cooling and freezing. The second technique is processing using preservatives such as salting, soaking acid solutions, and others. The third technique combines physical and preservatives such as fish processing, salting, drying, or heating. The fourth technique is fermentation, such as processing raw materials into semi-finished products with different product forms—for example, shrimp paste, fish meal, fish sauce, etc. The fifth technique is processing innovative products by processing processed fish or other seafood such as dried anchovy, anchovy chips, anchovy sauce, squid sauce, squid crackers (Rengginang), Tengiri fish crackers and others. These techniques continue to be socialized and introduced to the community for proper fish processing (Perbawani et al., 2018).

Marketing of fish products in Probolinggo City began to be developed with various strategies. Marketing is done manually and digitally; an example of manual marketing is opening stalls at events, exhibitions, and other programs inside and outside Probolinggo City. An example of digital marketing is selling and introducing products through online store platforms, social media, and others (Dinas Perikanan Kota Probolinggo, 2019).
Inclusive by Involving Local Communities

The blue economy program needs the active role of the people of Probolinggo City. Optimizing aquatic resources and fisheries aims to increase economic growth in Probolinggo City through various innovative and creative activities while ensuring sustainability and environmental sustainability. The Probolinggo city government develops and optimizes its potential by strengthening the joints and foundations of the people's economy in Probolinggo City and improving the quality and competitiveness of our human resources and products (PPID Kota Probolinggo, 2021). According to the interviews and observations, the Probolinggo City government held a Blue Economy Seminar supporting the Economy in Probolinggo City involved in regional apparatus, investors, Poklatsars, cultivators, and communities involved in the fisheries sector. The seminar aims to increase public knowledge about fisheries and marine sector management along with directions for cooperation between the community and the government and involve third parties. The Probolinggo City Government is also trying to improve the quality and competitiveness of human resources and the products made. In addition, the latest program from the Probolinggo City Government is that processed local products from the community are included in mini-markets. So that the community, especially SME owners, is involved in producing processed food from fishery and marine products and is well packaged to enter the scope of sales such as malls and mini markets.

Probolinggo City once held a program to introduce fish cuisine and increase fish consumption for the residents of Probolinggo City. The activity included all residents of Probolinggo City, especially in the Mayangan District, by distributing 10,240 Crispy Smoked Fish. The fish are caught and processed by Probolinggo City residents, carried out along the road in Mayangan District. Introducing fish catches and cooking or processed fish products in Probolinggo City is a special attraction. This event broke the Indonesia World Records Museum (MURI) in 2019.

Local food processing training is held for the community to process the superior resources of Probolinggo City, including processed fisheries. The PKK and the Agriculture, Food Security and Fisheries Service Unit organize one. The community innovates in processing fish and other marine products. It can be consumed regularly and processed into fish dumplings, fish balls, and others so that the community can innovate in processing fish and other marine products. Not only processed food products, fishery and marine products can be developed into handicrafts. According to the results of interviews with craft activists in Probolinggo City, currently, it is starting to be fond of crafts from processed seas, such as home decoration, keychains, paintings, and others. In 2022, the Probolinggo City Government opened an IKM and SMEs centre called Dekranasda. This further strengthens processed food products and handicrafts to be widely known and sold.

Environmentally Friendly

Marine and Fisheries development focuses on marine and fisheries industrialization with a blue economy approach through increasing added value and upstream-downstream synergy based on commodities and demanding reliable technical support from research findings. The development of the economic area of Probolinggo City has been implemented since the enactment of Law Number 23 of 2014 concerning Regional Administration in the context of the decentralization process; The Provincial government is responsible for the management, utilization, and conservation of marine resources in its territory within territorial waters. The Law Number 45 of 2009 concerning fisheries concerning the importance of sustainable use of aquatic resources in fisheries development, and Law Number 1 of 2014 concerning coastal management and small islands. Regulation of the Minister of Maritime Affairs and Fisheries (Permen-KP) Number 12 of 2010 concerning Minropolitan states that it is a conception of
The blue economy is a model of sustainable marine economic development. This is a new development mindset; its essence is developing the marine economy while protecting marine ecosystems and achieving sustainable resource utilization (Wenhai et al., 2019). Indonesia proposes principles of the marine and fisheries industry development based on their blue economy concept to formulate comprehensive economic policies and environmental protection, promote regional economic development, realize sustainable development by prioritizing a clean production system and encourage creative and innovative investment. Probolinggo City implements a blue economy in line with these principles. First, by concentrating and expanding conservation areas such as conserving coastal areas by planting mangrove forests not only on the coastal site of Tanjung Tembaga Port or, more precisely, the BJBR Mangrove Forest ecotourism area but developed at Permata Beach, Probolinggo City.

In addition, Probolinggo City directs fishermen to catch fish with environmentally friendly coral fishery catch practices such as BMP (Better Management Practices) for Grouper and Snapper commodities (Diskominfo Jatim, 2017). Probolinggo City also implements an environmentally friendly net. Even Tanjung Tembaga Port in Probolinggo City is included in 4 areas with measurable fishing ports. It means that the Tanjung Tembaga Port implements a quota-based measurable fishing policy. Policy analysis based on the blue economy as a solution to universal problems and their application to the local sector.

**Figure 1. The Concept of Operationalization of Concept Analysis with Blue Economy Studies**

(Source: Chandra et al. (2021) and modified by the researcher (2022))

**Implementation of Blue Economy Policy**

Application of the Blue Economy in Fisheries Business (Zamroni et al., 2018). The application of blue economy principles in fisheries and marine businesses developed in Probolinggo City, namely aquaculture, processing fish and processed seas, innovative skill products and others. The strategy for implementing the blue economy policy in Probolinggo City is implemented as follows:
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The Principle of Minimizing Waste

Probolinggo City is on the innovation of processing fish and other seafood into food products, beverages, and goods. Fish catches are not only sold as whole fish and raw fish. Blue economy principles are applied by utilizing new techniques and technologies to create products with high selling value. At the same time, it can open business opportunities and job opportunities for the residents of Probolinggo City. Processed fish is developed into mature products such as crackers, fish soup, shrimp paste, Petis, etc. Probolinggo City develops SMEs to be more creative in processing fish and marine products and minimizing waste. In Probolinggo City, there is an industry that processes fillet fish. The rest of the fish is not immediately thrown away, and there will be a special container for cooking or processing fish heads into dishes such as Gulai (curry), Soup and others. Bone-cutting residue can be collected, and fish bones can be processed into fishbone chips (Septiandika et al., 2022).

Social Inclusion

Social inclusion in the principle of the blue economy is an activity that a group of people can apply to all walks of life. The opportunity to apply the principles of the blue economy in Probolinggo City is based on direct observations, such as using the remaining fish fillet process. The remaining parts of the fish body can be reprocessed into food products such as fishbone chips, fish bone meal, fish bone crispy (Rempeyek) and others (Zainuri et al., 2016). Even other parts of the fish can be processed into food products with high nutritional value. Everyone can process and utilize fish and other products that can be collected on the edge of the port or from the rest of the processed products. The entire community can do all these opportunities without using difficult technology and a minimal budget to implement blue economy activities optimally in Probolinggo City.

Adaptation and Innovation

Adaptation and innovation applied by the people of Probolinggo are by catching fish using the best techniques without damaging the marine ecosystem. Fishing gear and methods include using bottom long-line fishing rods, fish traps, and set gill nets. Innovation is not only applied during the fish catch. Innovation is also applied when processing fish both during cleaning, storage, and weighing fish (Probolinggo City Fisheries Service, 2020). Other innovations are salting fish and smoking fish so that fish products are preserved by natural processes (Junianingsih, 2014; Septiandika et al., 2022)

Multiple Effects

Fisheries and marine commodities in Probolinggo City have the potential to apply the principles of the blue economy. The development of the fisheries and marine sectors can have a multiplier effect. The potential for fisheries and marine commodities has the potential to be developed by the community so that it can improve the national economy. The increasingly diverse processing of fish and seafood into food products will increase fish-eating consumption nationally. If the interest in buying processed fish and marine products is greater, it can increase people's yields and income and improve their welfare while opening job opportunities. Processing fish or seafood with zero waste, such as using fish bones and processing one type of fish into multi-products, is the latest product innovation while minimizing waste. Minimizing waste can preserve the environment. Applying the blue economy in using fishery and marine resources wisely can maintain the sustainability of aquatic and marine ecosystems and coastal areas. A good marine and fisheries and coastal environment and ecosystem can be a decent place for coastal communities to live and can be used as a leading tourism sector.
Maintained marine and coastal ecosystems can produce the quality of fish and other biotas suitable for consumption.

**SWOT Analysis in the Implementation of Blue Economy Policy in Probolinggo City**

Implementing blue economy principles in the entrepreneurship sector involves all parties from the community, the private sector, academics, and the local government of Probolinggo (Saefuddin, 2015). The community must participate by obeying sustainable fishing rules and continue to be creative in managing processed fish and other marine products. The role of the private sector is also needed as the owner of capital to assist production and marketing activities. The role of academics is needed in providing understanding and research related to blue economy activities. The government must actively assist, supervise, and support implementing the blue economy.

Based on the interview results, the people of Probolinggo City are enthusiastic and have even opened a business made from fish and other processed marine products. Community businesses start from the sale of raw and intact seafood, the sale of fish pieces, the sale of preserved and smoked fish, the sale of food, the sale of snacks, to the sale of food creations from the rest of the fish ingredients. The private sector in Probolinggo City supports the sale of community creations by providing a special place for the products of local entrepreneurs and helping with marketing. As one of the tourist attractions in Probolinggo City, it provides one space for selling souvenirs typical of Probolinggo City. The store's contents are all products made by local entrepreneurs in Probolinggo City.

Academicians also participate with dedication and research agendas gradually and periodically to build local, national, and international economies. Global economic knowledge is capital, technological innovation, technology capabilities and entrepreneurship. Research in the higher education room tailored to local, national, and international needs can create creative ideas and findings to address problems, technology transfer and breakthrough mechanisms. A knowledge-based economy requires a mutual partnership between universities and businesses.

The government has an important role to play. The government needs to socialize the widest possible form of blue economy policy. The government is not only the supervisor and controller of implementing the blue economy. Other activities include training the community to be wise and creative in processing fish and marine products. Further government support by providing capital assistance and assisting with marketing by involving third parties.

The results of in-depth interviews with respondents related to the implementation of blue economy policies are compiled in the SWOT analysis as follows:

<table>
<thead>
<tr>
<th>Strength (S)</th>
<th>Weakness (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. More and more processed food creations and skills based on fish and other seafood</td>
<td>1. There is not much research and technology that is environmentally friendly and cheap for processing fish into products</td>
</tr>
<tr>
<td>2. The government provides space for community training in entrepreneurship, especially in the production of processed fish and marine</td>
<td>2. There have been differences of opinion between fishermen and the government regarding the rules for fishing techniques</td>
</tr>
<tr>
<td>3. Local governments cooperate with the private sector to assist marketing and sales, including local products in malls, mini markets, and tourist attractions.</td>
<td>3. No training and direction on fish farming</td>
</tr>
<tr>
<td>4. Academics help conduct training and socialization to improve the spirit of</td>
<td></td>
</tr>
</tbody>
</table>
entrepreneurship with blue economy principles and provide ideas and findings that can be applied to entrepreneurship with blue economy principles.

5. The community actively participates in the entrepreneurship of blue economy principles starting from complying with the rules of fishing, the process of cleaning and storing fish properly, processing fish with various creations, and fish waste can be produced into other products such as fishbone chips and fish bone crispy.

<table>
<thead>
<tr>
<th>Opportunity (O)</th>
<th>Threat (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Entrepreneurial groups still exist with various cooperation programs</td>
<td>1. There is a period of change in regional leadership or the person in charge of the program</td>
</tr>
<tr>
<td>2. Many entrepreneurs take part in product exhibitions at the local, national, and international levels</td>
<td>2. Public awareness of environmental health</td>
</tr>
<tr>
<td>3. Online sales and online marketing are increasingly prevalent</td>
<td>3. Constraints on access to information in the community in the port environment</td>
</tr>
<tr>
<td>4. Students begin to participate in the entrepreneurship of fish and seafood processing with economic principles</td>
<td>4. Competition with overseas products on online business platforms</td>
</tr>
<tr>
<td>5. The remaining fish parts can be processed and created into food products or skill items, such as bones that become a fish meal and clam shells (thickness) into skill items.</td>
<td>5. Public awareness in registering product legality and product copyright</td>
</tr>
</tbody>
</table>

Source: Processed by researchers (2022)

E. CONCLUSION

Based on the analysis by researchers, it can be concluded that the Probolinggo City Government implements a blue economy policy by supporting the development of marine product processing and fisheries in Probolinggo City. The city meets the criteria as an activity with blue economy principles. The government cooperates with various parties from the public, the private sector, and academia in implementing blue economy policies for the entrepreneurial sector. The government adopts a policy implementation strategy starting from fishing, fish cleaning, fish measurement, fish storage, fish processing, fish preservation and cooking with appropriate techniques. The analysis results on several fisheries business techniques show the application of blue economy principles that create multiple effects by minimizing waste, social inclusion, adaptation, and innovation.

As a result of the SWOT analysis, the government maximizes the power to take and maximize existing opportunities by increasing cooperation programs with various parties and continuing to socialize the blue economy program. In addition, the government must overcome all shortcomings and threats of implementing entrepreneurship with the principle of a blue economy, especially in observing environmental health, nature sustainability, and waste treatment.
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Implementation of the Blue Economy Policy in Probolinggo City for the Development of the Creative Economy of Processed Fisheries and Marines


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