

# The study on local government policy in development of marine-based industry in South Konawe Regency of Southeast Sulawesi, Indonesia

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**Abstract.** This study aims to evaluate the local government policy that has been realized in order to develop the marine products processing industry in South Konawe Regency. This study was conducted in coastal area of South Konawe Regency in all business units consisting of 21 business units. This study used primary and secondary data. Primary data was obtained directly from industry sources, while secondary data was obtained from several official documents published by the Industry, Trade and Mining Affairs and Marine and Fishery Affairs Office in South Konawe District. The data obtained was analyzed using comparative descriptive analysis by comparing the perception of local government which was stated in document of strategic planning and perception of industry owners. The results showed that government interventions in marine and fishery products processing consist of assistance in training, production equipment aid, and capital aid. However, those assistances have not been evenly distributed and the promotion program has not been realized. The main obstacle was marketing promotion. The local government budget allocation was directed only for infrastructure development.

**Key Words:** policies, industry, marine products, comparative descriptive analysis.

**Introduction.** Indonesia has an area of about 17,588 islands and 5.8 million km<sup>2</sup> of sea waters and 81,000 km of coast length and a large and diverse potential of fish resources. However, the problem occurring in the primary sub-sector is that the production of marine fisheries is still characterized by primary products and has no significant value. Official data from Ministry of Maritime Affairs and Fisheries of Indonesia (2014) showed that the role of marine and fishery processing industry was only about 0.30 percent of Gross Domestic Product (GDP), and it has a decreasing trend. Meanwhile, the contribution of large and retail trade amounted to 0.87 percent. So, the government has set various fisheries and marine development programs from which one of them is to promote and sustain a development area called "minapolitan region" (or "fishing town").

From the large sea waters and coastline of Indonesia, the sea waters area of 9,368 km<sup>2</sup> and 388.5 km of coastline are located in the District of South Konawe. This coastline stretches along the coast of Hukaea in the sub-districts of Tinanggea, Palangga, Laeya, Lainea, Kolono, Laonti, and Moramo, to the border of Kendari City. This area of waters has wide potential for seaweed cultivation. In 2005, the cultivated area was 3.8 ha, producing 6.9 tons of seaweed. Historically, the area of seaweed cultivation and production volume increased from year to year (Marine and Fishery Service of South Konawe Regency 2017; Nuryadi et al 2017).

Based on Ministerial Decree of of Maritime Affairs and Fisheries of Indonesia No. 18/2011, the concept of "fishing town" region is implemented with the aim of: (1) increasing production, productivity, and quality of marine and fishery products; (2) to increase the income of fishermen, fish farmers, and fish processors in a fair and equitable way; and (3) developing the fishing town area as the center of economic growth in the region. Meanwhile, the fishing town targets for small scale micro fisheries are: reduction

of production burden, development of production system, provision of distribution facilities, technical assistance, and infrastructure development to support production system, processing, and/or marketing of marine and fishery products. Fishing town areas targets for the medium to upper scale business are: high competitiveness; guarantee of business and investment security and sustainability; settlement of business and trade barriers; infrastructure development; and development of a system of incentives for export and import of marine and fishery products.

Based on the potential of marine resources as well as the regulation, the regional development plan of South Konawe Regency has set the vision as "fishing town". Literally, the meaning of fishing town is a concept of economic management of marine-based and fishery-based areas to increase community incomes. The relationship with the regional vision is that the district in the development of its territory focuses on fishing town as the main mover of all potential regional flagship (Local development planning of South Konawe Regency 2010; Industry, Trade and Mining Affairs of South Konawe Regency 2016).

In order to achieve the vision and mission, the local government has been divided the fishing town area into 9 districts, namely: Kolono, East Kolono, Laeya, Lainea, Laonti, North Moramo, Moramo, South Palangga, and Tinanggea and 105 villages located on coastal shore of South Konawe District. Based on official data published by the Industry, Trade and Mining Affairs of South Konawe Regency in 2016 has shown that there were only 2 units of incorporated marine and fishery products processing industry or only about 5% of the business in the field, the remaining 38 units industry or 95% being home industries. This data was not much changed since 2011 or since the establishment of the vision and mission for the development of South Konawe Regency as fishing town. No much change in this business unit was also one of the weaknesses in the implementation of development policies. That has caused problems in the implementation of the fishing town district, especially in terms of community empowerment for marine aquaculture development, marine product processing, and marine based industry marketing.

To overcome the weaknesses in the development of the fishing town area, the development strategies of the fish processing industry that must be used to support the economic growth of the area towards fishery industrialization were identified as: (1) increasing the inter-sectored coordination in favor of the downstream fishery industries; (2) synchronizing and reviewing policies that hamper the fishery industries; and (3) choosing the right industrial scale related to the use of sustainable fisheries resources, utilities and industrial capacity as well as regional excellence. In Indonesia, ecosystem-based fisheries resource management is being carried out in several regions and scientific studies are needed to evaluate the effectiveness of the program. These studies need to use operational tools so they become more easily conducted with better results (Bappenas 2016). Arkema et al (2006) and Douvere (2008) stated that marine resource management requires planning of marine potential by considering ecological and biological elements of natural sustainability.

Fish farming is considered to be important for the development of fishing town area. Sukadi (2002) stated that in the future, the supply of fishery products is expected to mainly come from fish farming, and fish farming business is expected to be greater than that of capture fishery. Fish farming constitutes one of the determinants of economic growth that must be realized through a competitive, sustainable and equitable system. Some researchers have conducted studies related to fish farming and fish capture. Huda et al (2012) found that fish farming contributed to an increase in community income, job creation and output growth in East Java. Sulistiyanti et al (2015) studied the contribution of fish farming to the total production in East Java and they found that fish farming contributed with 91.8% to the total capture fisheries production in East Java Province. Yusni et al (2017) investigated the factors determining the success of the capture fishery sub-sector development on the southern coast of Tulungagung Regency. These factors are: (1) cluster organisation; (2) economic benefits; (3) human resources; (4) local resources; (5) marketing; (6) fisheries technology; (7) production process; (8) capital; (9) facilities and infrastructure; and (10) processing.

Fishery development and management cannot be separated from the problems faced by business actors in the fishery sector. Various problems related to the development

of marine-based industries have been studied by previous researchers, i.e. Omar & Anas (2014), Witarsa (2015), Setyowati et al (2016), and Hakim (2017). Omar & Anas (2014) studied the main problems faced by small and medium-sized industries in the marine sector. They found that the main issues were marketing, finance, business management and worker skills. Witarsa (2015) studied the factors that influenced community empowerment in Pontianak District. The results showed that the main factor in the empowerment of coastal communities was the low quality of coastal community resources. Another factor was the determination of development priorities in the fishery sector which was lower than other sectors, the lack of economic capital, inadequate fishing equipment, and lack of fishing fleet. Setyowati et al (2016) investigated the problems related to the processing of marine industry in Semarang. They found that the sustainability of the marine industry processing depended on industrial raw materials which were a less sustainable category. A similar study was also conducted by Ratnaningtyas et al (2016) in Semarang. They found that although the economic dimension, quality, and safety of the products in the processing industry were in the category of continuity, in terms of ecological and raw material dimensions the fishery processing industry was in the category of "less continuity". Furthermore, Hakim (2017) found that fish management has not been well implemented by most fishermen because of (1) their inability to use assistance from the government; (2) their lack of capacity to make financial accountability properly; and (3) their unfulfilled needs of a mentor, while the presence of a specialist is highly needed.

The economic development policy in the fishing town area requires programs and strategies in its implementation, where superior commodities sourced from the marine and fisheries sector. The government of Konawe Selatan regency has established a program that can replace the upstream to downstream sectors. The programs in the upstream sector include the provision of seeds or raw materials, financial capital, means of production, labor, and production processes. Meanwhile, the programs in the downstream sector include the processing of raw materials, transportation and marketing, facilities and infrastructure, handling technology and financial holding of fisheries business. To implement the program, the government has set strategies for developing fishing industry that include: (1) dissemination of information and communication; (2) promotion of processing production and marketing; (3) building of the centers of the fishing town area; (4) human resources development, institutions, business assistance and technical assistance; and (5) the fishing town development and research. Thus it is necessary to evaluate the fishing town program that has been carried out by the government.

Based on our knowledge, a study to evaluate the realization of marine industry development policy in South Konawe Regency has not been yet done. The aim of this study was to investigate the realization of government policy based on the planned program in order to develop the minapolitan industry in South Konawe Regency.

**Material and Method.** This study used a survey method. The study was conducted in coastal area of South Konawe Regency which has potential for minapolitan development, especially in 9 sub-districts: Tinanggea, Kolono, East Kolono, Laeya, Lainea, Laonti, North Moramo, Moramo and South Palangga. The map of South Konawe Regency is shown in Figure 1.

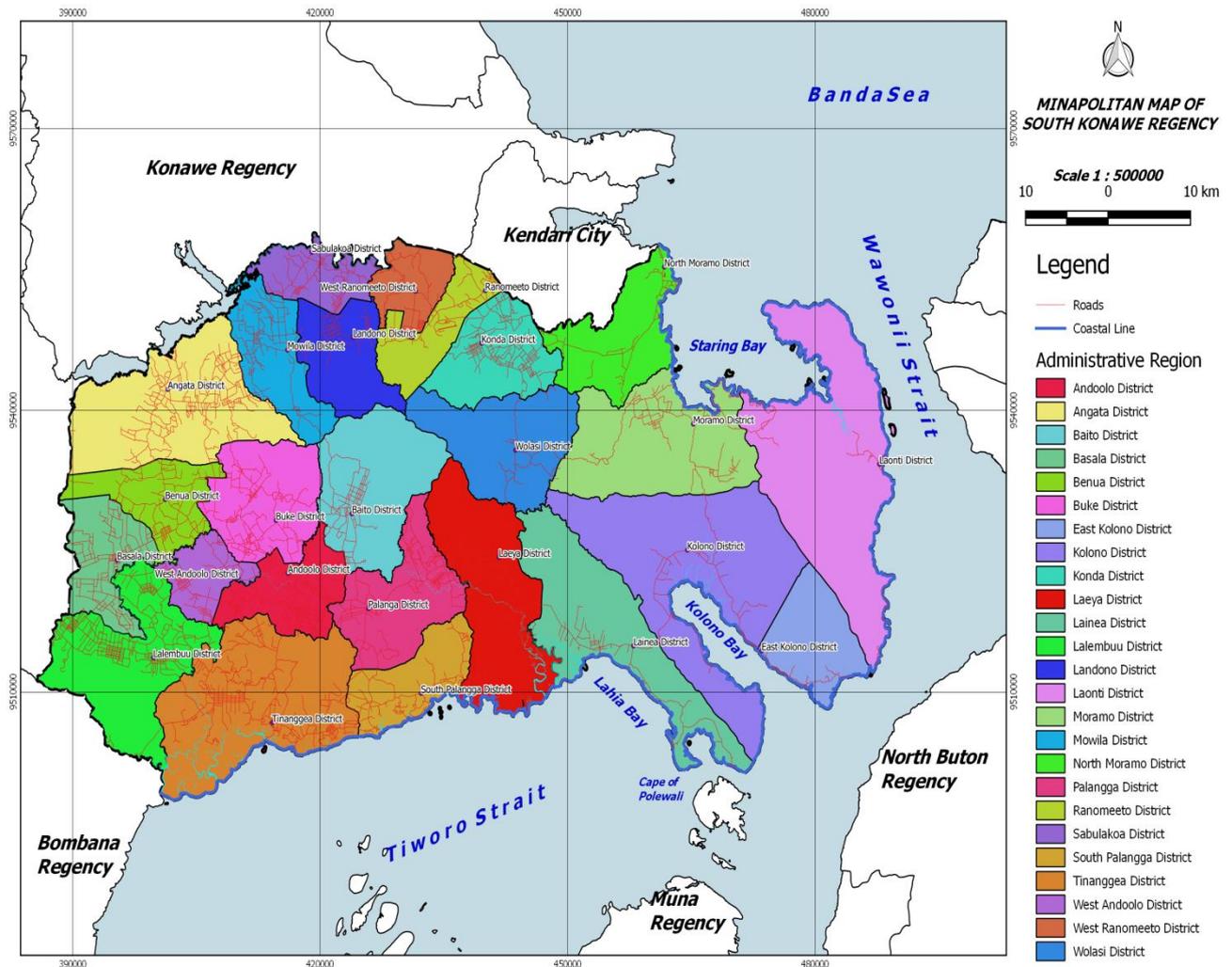


Figure 1. The map of South Konawe Regency.

Based on data taken from the compilation of the Marine and Fisheries Affairs of South Konawe and the Industry, Trade and Mining Affairs of South Konawe Regency, there were 46 business units related to the marine and fishery processing industry. However, from the field study, there were found only 21 business units. The manager of each business unit was used as a respondent. So, there were 21 respondents. This study used primary and secondary data. Primary data was obtained directly at research sites taken from the concerned parties such as fishermen as the players of fisheries and marine industry and local governments. Meanwhile, secondary data were obtained from the publications of the related agencies such as the Industry, Trade and Mining Affairs of South Konawe Regency, Office of Marine and Fishery Affairs of South Konawe Regency, and other related local government offices.

The method of collecting data for respondents used questionnaires with closed questions related to assistance received from local governments. Respondents were asked to choose the type of constraints they had in managing the business (marketing, raw materials, or capital), and the types of assistance that had been received from the local government (training, capital, equipment, or marketing). Respondents' answers are then processed through frequency distribution based on industry type. In order to determine the realization of government programs for the target group, the types of assistance received were compared to the government programs listed in the Konawe Selatan Regency Industry and Trade and Mining Strategic Plan documents.

## Results

***The opportunities and challenges of industrial development in South Konawe district.*** Based on the Strategic Plan Document of Industry, Trade and Mining Affairs of South Konawe Regency (2016), the problems faced by the main task and service function in the industrial sector were:

- a. There was still dependence on raw materials, auxiliary materials, intermediate goods, and external components,
- b. Industrial structure was still dominated by small scale industries that process products based on local raw materials and using simple technology,
- c. The role of small and medium industries in the economic sector is still low,
- d. The quality and competitiveness of the products of the small and medium industries produced are still low,
- e. The limited access of small industries to raw material, capital, technology, and market sources, and
- f. Not optimal coaching, supervision and continuous monitoring toward industrial business actors.

Meanwhile, the strengths of the industrial sector were: (a) the large potential of small and medium scale industries, (b) the establishment of small and medium industries based on commodities, (c) the establishment of a service organizational structure as an industrial coach, (d) the existence of promotional events and business meeting for small and medium industries from Industry and Trade Office of South Konawe Regency, (e) the availability of an industrial database of South Konawe, and (f) the government of the South Konawe was consistently developing small and medium-sized micro enterprises.

Based on the strategic plan of the Industry and Trade Affairs of South Konawe Regency (2016) the weaknesses in the field of industrial sector from the government perspective were: (a) the limited budget for industrial development; (b) entrepreneurial spirit of business actors, mastery of production technology, and power of innovation of local resource-based industries are still low; (c) the lack of a truly capable industrial area; (d) limited market access and marketing institutions in South Konawe Regency; (f) the lack of expertise in industry due to limited opportunities to obtain functional technical education, and (g) the industrial structure has not been well organized.

Based on the strategic plan of the Industry and Trade Affairs the opportunities for the development of marine and fisheries processing industry in South Konawe Regency were:

- a. The presence of vision, mission, and priority programs of South Konawe Regency that supported the development of micro small and medium enterprises,
- b. Opening opportunities for cooperation with universities, design agency, consultants, research bodies and testing centers,
- c. The existence of central and provincial government policies that consistently supported the development of industry in the region including the District of South Konawe,
- d. Enforcement of Indonesian National Standards of products both mandatory and voluntary,
- e. South Konawe Regency was in a strategic position connecting Bombana, Muna and East Kolaka Regency as a chain economy,
- f. Availability of potential agricultural products, livestock, plantation and forestry around South Konawe Regency that can support the development of industry in South Konawe, and
- g. Asian Economic Community Agreement 2015 and Global Market 2020 will create opportunities for investment, production, employment and income for increasing community welfare.

Furthermore, the South Konawe Regency government considered that industry challenges consisted of:

- a. Some industries in South Konawe still had a great dependence on raw materials, auxiliary materials, intermediate goods and components from outside the region,
- b. The high cost of production for small and medium industry products resulted in a lack of competitiveness, and

c. There was still a tendency of people to love foreign products.

On the other hand, practically, the industry considered that the main constraints faced by the marine and fishery products processing industry in South Konawe Regency as shown in Table 1 were: raw materials, marketing and financial capital. The fermentation industry acknowledged that the main constraint of shrimp paste production was the raw material in the form of shrimp, which was still rare to sell in the market in South Konawe Regency. This scarcity caused the producers to conduct fish self-cultivation in the sea, and this required a lot of capital because it had to provide fishing gear in the form of boats and equipment. The cost of completeness for this fishing gear could reach about 723,118.19 USD for one fisherman.

Furthermore, the constraints of the fish meatball milling industry were caused by bad marketing. The need of raw materials was not a problem in this industry because fish such as tuna (*Thunnus* sp.) were available in the market. Within this business the human capital requirements were still low, so the main constraint of making fish meatball was the bad marketing. The weakness of the marketing aspect in this industry caused the industry to produce based on order or request from customers. The fish fumigation and drying industry had constraints on venture capital and raw materials. Other processing industries studied showed that the main obstacle was the marketing aspect. In addition, for seasoned fish floss processing industry, business capital was also an unresolved problem.

Table 1

The constraints of fishery products industry in fishing town area of South Konawe Regency

No	Industry	Constraints
1	Fermentation	Raw material
2	Meat milling	Marketing
3	Fumigation	Raw material, financial capital
4	Drying	Raw material, financial capital
5	Other processing industries:	
	Seasoned fish floss	Capital, marketing
	Fast anchovy	Marketing
	Fish chips	Marketing

Source: Own processing from the results of the interview.

**The performance of local government intervention and its role to the growth of fishery and marine industry.** The fishing town area development policy was the policy of South Konawe Regency government, so in the realization, the government conducted some interventions in order to grow the competitiveness of fishery and marine products processing industry. Based on the strategic plan of the Industry, Trade and Mining Affairs of South Konawe Regency for the period of 2016-2021, four policies have been revealed that were directly related to industrial businesses, namely: (1) entrepreneurship training and utilization of appropriate technology, (2) training and development of fishery products and marine products, (3) assistance of production facilities and infrastructure, and (4) the provision of supporting facilities such as craft centers, promotions, and trading houses (Industry, Trade and Mining Affairs of South Konawe Regency 2016). These programs have been realized, except the provision of promotional and trade support facilities. However, government interventions have been only distributed to a number of industries as presented in Table 2. Based on interviews with related local government working units, it was found that the weak government intervention in the fishing town sector was driven by budget allocations that were more directed to infrastructure development.

In Table 2 are shown the 7 business units that have received government intervention (assistance). The 7 business units were grouped into 3 major groups, namely: milling, fumigation and other industrial units (2 units of seasoned fish and 1 fast anchovies serving). The type of assistance received by the fumigation business consisted of 3 types of interventions, they were: training, tool assistance, and capital assistance. Substantially, the training materials were directed at entrepreneurship and product development, while

assistance in the development of facilities/infrastructure was just a simple fumigation house. The capital assistance received from the local government was a business operational fund of 3,615,590.43 USD per year.

Table 2

The performance of government intervention

No	Type of industry	Beneficiaries	
		Units	Type of assistance
1	Fermentation	0	
2	Meat milling	2	Training
3	Fumigation	2	Training, tool, capital
4	Drying	0	
5	Shading	0	
6	Others:		
	Fish abon	2	Training, tool
	Fast anchovy	1	Training
	Fish chips	0	
	Numbers of industries	7	

Source: Own processing from the results of the interview.

Meanwhile, the meat milling, fumigation, seasoned fish floss, and fast anchovy industries/businesses only received assistance in the form of training. The impact of government intervention on the development of marine and fishery product processing business is as follows: there are 6 respondents from industry that received assistance or 86% claimed to have increased production after receiving government aid, while 1 respondent (14%) considered the assistance provided by the government had no impact on the increase of business production. The reason why the government assistance could encourage increased production of enterprises was because the training provided the needs of production, and that the help of a given tool could shorten production time and was easy to use.

Referring to the master plan for the development of minapolitan of South Konawe Regency, two growth centres were established, namely the growth centre area of Tinanggea Subdistrict and the growth centre of Kolono Subdistrict. In these two sub-districts, several fisheries farming, product processing and fishery product marketing were developed. The business development was based on the potential of each region. In Tinanggea subdistrict, the business objects being developed were: (1) development of fishpond culture; (2) development of marine culture; (3) development of fishery products industry; (4) development of processing fishery products; (5) development of production facilities; (6) development of minapolitan economic and financial centers; and (7) development of supporting service providers of minapolitan. Furthermore, in Kolono subdistrict, the business objects being developed were: (1) development of fishpond culture; (2) development of marine culture; (3) development of hatcheries; (4) development of processing of fishery products; (5) development of production facilities; (6) development of Minapolitan economic and financial centers; and (6) development of supporting services providers of minapolitan (Local development planning of South Konawe Regency, 2011).

**Discussion.** The constraints faced by the processing industry of fishery and marine products were: the scarcity of raw materials, limited business capital, and marketing of production. This is in line with research by Ratnaningtyas et al (2016) in the fishery product processing industry in Semarang, which showed that the fishery product processing industry was quite sustainable in the economic dimension, but less sustainable from the ecological and raw material dimension. In the meantime, it can have acknowledged that the government could not fully provide capital for the industries, so the alternative strategy that might be built for the purpose of the marine products processing industry development

as the result of research by Setyowati et al (2016) was increasing the ability to access capital.

Marketing is a constraint faced by almost all types of businesses. A study of the marketing capabilities of the food processing industry has been investigated by Omar & Anas (2014). The results of their research indicated that there were four main problems faced by the small medium industry in the study area such as marketing problems, followed by financial problems, management problems and skilled workforce. However, this field of promotion and marketing was not well understood by the respondents.

The uneven distribution of aid provided by the government or the lack of such assistance to the development of marine-based industries was due to the more concentrated allocation of funds for infrastructure development. This research is in line with Witarso (2015) research in Pontianak Regency which showed that the main threat factor in coastal community empowerment was the establishment of priority in the development of fishery sector, which was often lower if it was compared to other sectors.

The development of the minapolitan area mainly focuses on the development of human resources within the area. However, this will never be realized if the community is only used as a passive subject of development and therefore the concepts of participatory development are important in the development of minapolitan areas. According to Azwar (2001), at the local level planning, community participation is important because they are the ones who really know the situation and condition of the area in which they live. If they are not fully involved, then a limited understanding of the program manager can have the effect of reducing community support for program implementation and it ultimately will not reach the target. Rustiadi (2011) stated that regional development is related to the development of certain functions of a regional unit covering social, economic, cultural, political, as well as defense and security functions. The development of the minapolitan area in South Konawe Regency which is a hinterland must be improved, especially in terms of economic and social development.

**Conclusions.** Local government assistance has been able to increase production in the marine products processing industry. The local government has programmed four types of intervention in the development of marine and fishery product processing industry, but only three of them touched the business actors: training, production aid assistance and capital aid. The marketing aspect was one of the main obstacles in the marine industry development in the region. On the other hand, the assistance provided by the government was not evenly distributed in all industries. The weak government intervention in the minapolitan sector was driven by low budget allocations that were mainly directed to infrastructure development in South Konawe Regency.

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