Agropolitan Development Strategy Based Food Crops and Fisheries in Banjar Regency South Kalimatan Province

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ABSTRACT

The agricultural and fisheries sector's role in increasing food supplies can also increase income through export activities. The development of metropolitan areas is expected to increase development based on agriculture and fisheries, where the contribution of the agricultural and fisheries sectors to GRDP is relatively small. The purpose of this study is to analyze the superior commodities of food crops and fisheries in the context of developing agropolitan areas, selecting agropolitan development areas through the availability of facilities and infrastructure in production center areas, and formulating agropolitan area development strategies. The research results show that rice and tilapia are superior commodities to be developed in agropolitan implementation in Banjar Regency. This can be seen from the LQ value obtained for rice and tilapia commodities which are greater than one, while corn and catfish have great potential to be developed and soybean commodities still do not have the potential to be developed or are not yet a basis where the value for these commodities is less than one. Banjar Regency has greater potential to be developed as a growth center or service center in the development of agropolitan areas in Banjar Regency because it has a more complete type and number of supporting facilities, and has competitive advantages to compete to become a new agropolitan area in South Kalimantan Province. The strategy for developing agropolitan areas in this research is to build agricultural and fisheries facilities and infrastructure (sub-terminal agribusiness) and strengthen capital institutions.

Keywords: Agropolitan, Superior Commodities, Regional Development

INTRODUCTION

Urban areas as centers of economic activity and growth have driven the flow of resources from rural areas to urban areas in an unbalanced manner. The high acceleration of economic growth can, to some extent, influence development inequality between regions which tends to be urban biased as well as discrimination against rural areas and the agricultural and fisheries sectors. The low contribution of the agricultural and fisheries sectors is thought to be caused by the utilization of agricultural and fisheries potential. which is not yet optimal regarding land use in a number of areas in Banjar Regency. Land as the main input in the agricultural and fisheries production process

must be the basis for controlling food production. Current policies favor large industry as the economic base in urban areas. On the other hand, the agricultural and fisheries sectors and small industries are almost entirely based in rural areas. Mubyarto's (2004) statement that the gap between the industrial sector and the agricultural and fisheries sector is visible in the urban-rural gap. If this continues to happen, it will cause a wider gap between these sectors.

The agricultural and fisheries sectors have a very important role in the development process. The role of the agricultural and fisheries sectors in addition to increasing food supplies can also increase income through export activities. Rustiadi et al (2009) if the agricultural and fisheries sectors can act as leading sectors, they will have forward-linkage and backward-linkage. The government's policy to narrow the gap between regions is to implement regional development policies through the concept of flagship areas, based on the potential of the region. Banjar Regency has quite extensive agricultural and fishing land. Agricultural and food fisheries land in urban areas must be protected as sustainable agricultural and food fisheries land. Protection of agricultural and fishery land according to Law No. 41 of 2009 is carried out by identifying existing agricultural and fishery land, both technically irrigated and non-irrigated, as well as potential land for agricultural and fishery production. The productivity of agriculture and fisheries, which is quite large, despite the decline, is expected to be developed using the concept of agriculture and fisheries (modern agriculture and fisheries).

The development of agropolitan areas is one approach to urban agricultural and fisheries development, by placing urban agricultural and fisheries areas as centers. Agropolitan is one form of regional development by integrating all elements related to the field of agricultural and fisheries development. The Department of Agriculture and Fisheries (2002) agropolitan is a growing and developing agricultural and fisheries city that

is able to spur the development of agribusiness systems and businesses so that it can serve, encourage, attract, and drive agricultural and fisheries development activities (agribusiness) in the surrounding areas. The development of agropolitan areas aims to develop agricultural and fisheries agribusiness in food crops and fisheries in order to increase added value and competitiveness, increase the income of agribusiness communities around the area, and increase the contribution of the agricultural and fisheries sectors. The research objective is to analyze superior commodities of food crops and fisheries in the context of developing agropolitan areas in Banjar Regency. Selecting agropolitan development areas through the availability of facilities and infrastructure in areas of superior commodity production centers and formulating strategies for developing agropolitan areas in Banjar Regency.

MATERIALS & METHODS
This research was conducted in Banjar Regency, South Kalimantan Province. The research location was chosen purposively with the consideration that Banjar Regency would develop an agropolitan program. The research was conducted in September - October 2024.

Data Types and Sources
The data used in this research are primary data and secondary data. Primary data was obtained and collected directly by conducting interviews with six key informants, namely the head of the agricultural and fisheries development planning sector, spatial planning sector, and the public infrastructure sector of Banjar Regency BAPPERIDA, Banjar Regency Food Security and Fisheries Service and other agencies. The focus of primary data is related to strategies for developing agropolitan areas by parties involved in development. Secondary data were obtained from related agencies and agencies in the study. The secondary data collected includes the production of each food crop and fishery commodity,

agricultural and fishery facilities, and data on the characteristics of the Banjar Regency area.

Data analysis

The data analysis used to answer the research objectives consists of five analysis techniques and compilation of analysis results to determine the most appropriate strategies and directions for developing agropolitan areas.

Location Quotient (LQ)

Location Quotient (LQ) analysis is used to determine the potential of an economic activity which is an indication of base and non-base sectors, by comparing the capabilities of the same sector in a wider area.

$$LQ = \frac{Rik/Rtk}{Nip/Ntp}$$

Description:

Rik = Production of commodity i at the city level

Rtk = Total production of commodity in the city

Nip = Production of commodity i at the provincial level

Ntp = Total production of commodity in the province

Source: (Oksatriandhi 2014; Baladina et al. 2013).

Scalogram Analysis

This is an analysis of concentration in a region. By identifying the facilities that influence the regional economy and using a quantitative approach, the ranking or hierarchy of growth centers can be determined (Nindhitya 2013; Ardila 2012; Sutrisno 2012).

Diamond Porter Analysis

The determining factors that create competitive advantage in diamond porter analysis are: 1) Factor conditions, 2) Demand conditions, 3) Related and supporting industries, 4) Strategy, structure, competition (Mulyati 2010).

SWOT Analysis

The SWOT strategy is divided into four strategies, namely: SO strategy, WO strategy, ST strategy, and WT strategy. SO strategy is a strategy that takes advantage of opportunities by using the strengths it has. WO strategy is to take advantage of opportunities by overcoming weaknesses. ST strategy is to overcome threats by using the strengths it has. WT strategy is to minimize weaknesses by overcoming threats from the external environment (Simanjuntak 2013; Manik 2013).

AHP Analysis (Analysis Hierarchy Process)

This method is a framework for making effective decisions on problems by simplifying and speeding up the decision-making process by breaking the problem into its parts, arranging these parts or variables in a hierarchical arrangement (Marimin and Maghfiroh 2010).

RESULT

Leading commodities of food crops and fisheries in the development of agropolitan areas

The food and fisheries crops cultivated are rice, corn, cassava, sweet potatoes and peanuts. Based on the results of the LQ analysis, it was found that rice commodities have indications as superior or potential commodities in the region. This commodity has an LQ value greater than one (LQ > 1). Other food and fishery crops that are cultivated, namely corn, cassava, sweet potato and peanuts, still do not have the potential to be used as superior commodities so they are not able to meet the needs of their own people, so they have to import from outside the region (LQ < 0.75).

Table 1. Results of LQ Analysis of Food Crops and Fisheries Commodities in Banjar Regency in 2024

Commodities	LQ Value	Description
Rice	1.69	Base
Corn	0.75	Non Base
Soybeans	0.22	Non Base
Tilapia	1.05	Base
Patin Fish	0.47	Non Base

Source: BPS Banjar Regency 2024 (processed data)

Rice plants as one of the most dominant food commodities cultivated in Banjar Regency, almost all sub-districts plant it. The characteristics of both soils are very suitable for rice cultivation. Most of the areas that are the basis for rice commodities are sub-districts that are passed by irrigation networks.

Triyanto and Hardinto (2013) stated that rice plants are able to improve the economy of rural areas through agricultural and fisheries agribusiness activities by increasing crop production and the value of grain in each harvest season. The development of the superior commodity rice is in accordance with the mandate of Law of the Republic of Indonesia No. 18 of 2012 concerning Food that states The government and regional governments are responsible for the availability of food in the regions and the development of local food production in the regions where food provision aims to meet the needs and food consumption of communities, households and individuals in a sustainable manner.

Availability of facilities and infrastructure in production center areas in the development of agropolitan areas

In determining an agropolitan area, apart from having superior commodities, it must also have adequate agropolitan supporting facilities and infrastructure to support the development of agribusiness systems and businesses, especially food, such as roads, irrigation, terminals, banking facilities, information centers for agribusiness development, production facilities for product processing. agriculture and fisheries, and public facilities and other social facilities. The areas analyzed in this study are areas that are rice production centers in Banjar Regency, where these areas have the largest amount of rice production. The three sub-districts which are rice production centers in Banjar Regency are Gambut District, Tatah Makmur District and Mataraman District. The three sub-districts were analyzed using scalogram analysis. The results of the Scalogram Analysis show that of the three sub-districts analyzed, it is known that only one sub-district has hierarchy I or is developing, namely Gambut District. The sub-districts included in hierarchy II are Mataraman Sub-district, with 21 types of facilities owned with a total of 1,186 facilities. Hierarchy III or the lowest is Tatah Makmur District with 21 types of facilities with a total of 451 facilities.

Banjar Regency has greater potential to be developed as a growth center or service center in the development of agropolitan areas, because it has the largest number of supporting facilities, namely 1,231 units. In the location theory, it is stated that to determine the location of the establishment of an economic center there are two orientations, the first is market orientation and the second is resource orientation. Production is mostly made from agricultural and fishery raw materials, usually there is weight loosing activity, so the recommendation for determining the location is in the resource area or raw material location. Other sub-districts such as Sungai Tabuk Sub-district are said to be hinterland areas or supporting areas. The growth center area functions to encourage and facilitate the development of the hinterland area by providing various service facilities needed. The hinterland area functions more as a production area that can be a supply area for the core area.

Characteristics of the agropolitan area of Banjar Regency using the Diamond Porter competitive advantage model
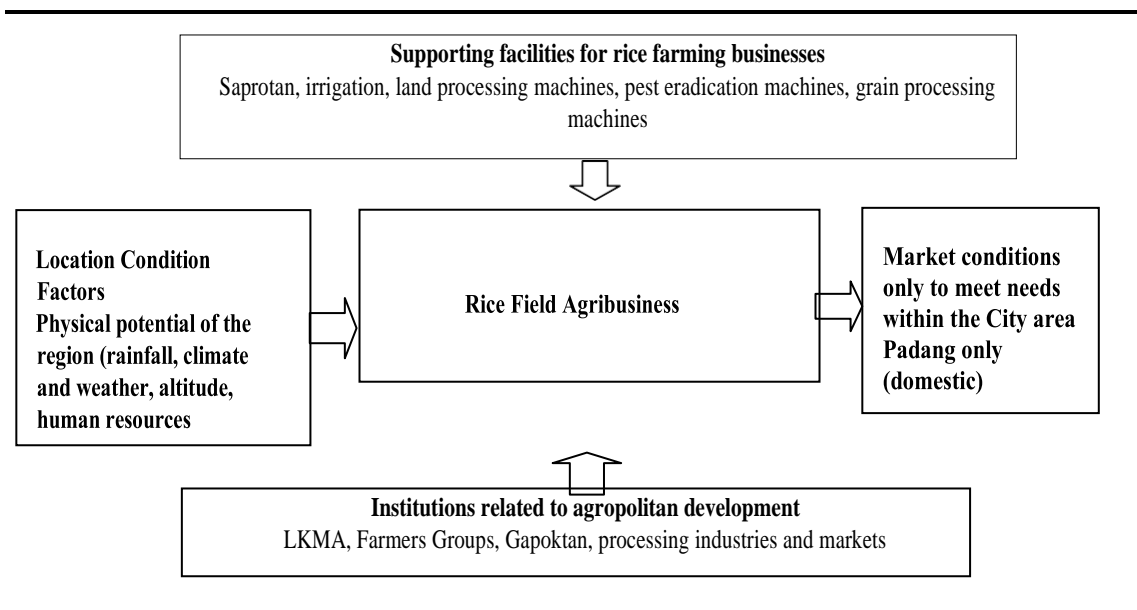

Figure 1. Characteristics of the Agropolitan Area of Banjar Regency

The domestic market or within the region itself is a fairly potential market, this is related to the lack of stock for the Banjar Regency area. The condition of rice needs is greater than its production. Farmer groups and Gapoktan have a fairly large role in the development of the agropolitan area. Farmer groups and Gapoktan collaborate with capital institutions (LKMA) to assist with capital in farming businesses and open partnership relationships with traders and the rice processing industry to market agricultural and fishery products. while the processing industry consists of rice milling and cleaning industries (Table 2). The type of market that exists is a public market (traditional market) where activities are carried out every day.

Table 2. Types of Rice Processing Industry

Type of Business	Product	Work force (people)	Investment value (Rp)	Production Capacity (tons)	Production Value (x1000)	Value. Raw Materials (x1000)
Rice milling and cleaning industry	Rice	7	52.500.000	451.800	4.188.000	3.870.500
Rice milling and polishing industry	Rice	5	40.500.000	325.500	3.561.600	2.455.350
Rice milling and polishing industry	Rice	8	32.500.000	422.100	4.085.550	4.005.300

Source: Banjar Regency Food Security and Fisheries Service 2024

Supporting facilities for rice farming businesses

The main agricultural and fisheries production facilities that are most needed by farmers are fertilizers, pesticides and medicines. The irrigation network system is a vital requirement in supporting the improvement of agriculture and fisheries, especially rice farming and fisheries.

Table 3. Supporting Facilities for Agropolitan Rice Farming Business in Banjar Regency 2023

Machine Type	Good condition & minor damage (unit)	Severely damaged condition (unit)
Soil Processing Machine		
☐ Two-wheel tractor	312	23
☐ Four-wheel tractor	257	16
☐ OPT Control Machine	419	35
☐ Sprayer (hand sprayer & power sprayer)	54	2
☐ Paddy Processing Machine	358	34
☐ Medium rice miller	45	8
☐ Paddy cleaner	64	11
☐ Flat type dryer	42	7

Source: Banjar Regency Food Security and Fisheries Service 2024

Agropolitan Regional Development Strategy

SWOT Analysis

SWOT analysis was carried out by identifying internal and external factors in the Banjar Regency area as an agropolitan development area. The results of the two identifications of internal and external factors are tabulated in table form. In more detail, it can be seen in Table 4.

Internal Factors: Strengths and Weaknesses

Several internal factors that determine and support the strength in the context of implementing agropolitan in Banjar Regency, namely:

Strength:

1. The strategic position of Banjar Regency, namely close to the center of the capital city of South Kalimantan Province
2. The state of natural resources, which are suitable for agricultural cultivation and fisheries
3. There are quite a lot of GAPOKTAN institutions
4. The condition of human resources in many farming households still exists
5. Regional government policies that support the development of agropolitan areas

Weaknesses:

1. Lack of facilities and infrastructure to support agriculture and fisheries/still incomplete
2. The use of appropriate technology is still minimal
3. Weak capital investment institutions

External Factors: Opportunities and Threats

Several external factors, namely factors originating from outside which cannot be mastered and controlled by actors who are internally directly involved in agropolitan implementation, some have positive impacts that provide opportunities, namely:

Opportunity:

1. The existence of regional autonomy,
2. open market for domestic and foreign,
3. There is a partnership with the private sector,
4. Availability of farming business credit and
5. Free trade

Threat

1. Land control by outside parties
2. Similar products from other regions, and
3. Climate uncertainty

The results of the SWOT matrix analysis, the proposed strategy for developing agropolitan areas in Banjar Regency is:

1. Optimize existing resources to develop the agricultural and fisheries sectors

supported by the processing industry sector in agropolitan development.

2. Develop agricultural and fisheries facilities and infrastructure and strengthen capital institutions for the development of superior commodities.

3. Increase the government's role in protecting agricultural land and fisheries to increase agribusiness activities as well as strengthening GAPOKTAN institutions.

4. Conducting training/extension to farmers on agricultural and fisheries technology.

Table 4. SWOT Analysis of the Agropolitan Area in Banjar Regency 2012

Internal Factors External Factors	Strengths (S) a. Strategic position/location of Banjar Regency, which is close to the center of Banjar Regency b. Natural resource conditions, which are suitable for agricultural and fisheries cultivation c. The existence of quite a lot of GAPOKTAN institutions d. Human resource conditions, e. Local government policies,	Weakness (W) a. Incomplete facilities and infrastructure b. Minimal use of appropriate technology c. Weak capital institutions
Weakness (W) a. Incomplete facilities and infrastructure b. Minimal use of appropriate technology c. Weak capital institutions	Strategy S-O Optimizing existing resources to develop the agricultural and fisheries sectors supported by the processing industry sector in agropolitan development	Strategy W-O Building agricultural and fisheries facilities and infrastructure and strengthening institutions capital for the development of superior commodities
Threats (T) a. Land acquisition by outsiders b. Similar products from other regions c. Climate uncertainty	Strategy S-T Increase the government's role in protecting agricultural land and fisheries to increase agribusiness activities and strengthen GAPOKTAN institutions	Strategy W-T Organize training/counseling to farmers about agricultural and fisheries technology

AHP Analysis

The AHP results which have been processed using expert choice 2000 software, have an Inconsistency Ratio (IR) value of 0.054. The IR value for each respondent is less than 0.10, meaning that the respondents are consistent in providing answers with a small level of deviation.

The priority strategy for developing agropolitan areas that should be carried out is to build facilities and infrastructure to support agriculture and fisheries and to strengthen institutional capital for the development of superior commodities with a weight of 0.412. The development of facilities and infrastructure is the most important thing to support the development of agribusiness systems and businesses. Furthermore, the agropolitan area development strategy carried out is to optimize existing resources to develop the agricultural and fisheries sectors which are supported by the processing industry sector in agropolitan development with a weight of 0.274. One of the targets of agropolitan area development is to empower agribusiness actors to be able to increase production, productivity of agricultural and fisheries commodities and processed agricultural and fisheries products. While the third strategy is to increase the role of government in protecting agricultural and fisheries land to increase agribusiness activities and strengthen GAPOKTAN institutions with a

weight of 0.137. The government strengthens and socializes the land law and ensures ownership of vacant land to avoid land disputes and land control by outside parties. There is counseling for farmers so that they have adequate space for movement and innovation in accessing information, production and marketing towards agriculture and fisheries that are agribusiness-based and highly competitive.
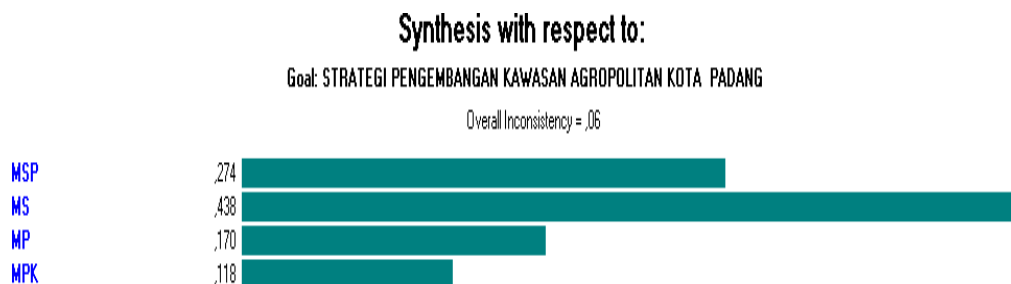

Synthesis with respect to:

Goal: STRATEGI PENGEMBANGAN KAWASAN AGROPOLITAN KOTA PADANG

Overall Inconsistency = ,06

MSP	,274
MS	,438
MP	,170
MPK	,118

Figure 2: Weight of agropolitan area development strategies

Description:

MSP :	Developing the agricultural and fisheries sector supported by the processing industry sector
MS :	Building agricultural and fisheries facilities and infrastructure and strengthening capital institutions
MP :	Increasing the role of government in protecting agricultural and fisheries land and strengthening GAPOKTAN institutions
MPK :	Conducting training/counseling for farmers on agricultural and fisheries technology

Agropolitan Area Development Strategy Based on Food Crops and Fisheries

Development of agricultural and fisheries facilities and infrastructure and strengthening of capital institutions for the development of superior commodities is the most appropriate strategy for the development of agropolitan areas in Banjar Regency.

Policy Implications
1. The government must first pay attention to the availability of agricultural and fisheries facilities as well as supporting facilities in areas that will be used as agropolitan areas for the development of superior commodities.
2. The government needs to carry out previous studies or research on the problems that will be faced in the context of implementing agropolitan areas.

CONCLUSION

Rice and Tilapia are superior commodities to be developed in the implementation of agropolitan in Banjar Regency. This can be seen from the LQ value obtained by rice and Nia fish commodities which is greater than one, while corn and catfish have great potential to be developed and soybean commodities still have no potential to be developed or are not yet on a basis where the value for these commodities is less than one. Banjar Regency has greater potential to be developed as a growth center or service center in the development of agropolitan areas in Banjar Regency because it has a more complete type and number of supporting facilities, and has competitive advantages to compete to become a new agropolitan area in South Kalimantan Province.

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