



# EVALUATION OF SPATIAL AND REGIONAL PLANNING POLICIES RELATED TO THE TRANSFER OF AGRICULTURAL LAND FUNCTIONS IN BANTEN PROVINCE

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## Abstract

The development strategy contained in the regulations concerning Spatial and Regional Planning (RTRW) often intersects with social, cultural, and even environmental conditions. One of the impacts that often arises is the issue of conversion of agricultural land, plantations, to forestry into industrial and residential areas. In the context of the Banten Province Regional Regulation on Spatial and Territorial Planning (Perda RTRW), the spatial plan contained in the Perda is considered to have contributed to the trend of conversion of agricultural land on a large scale in several areas in Banten Province. This study aims to evaluate the Spatial Planning and Territory Plan policies for Banten Province which are considered to have a direct impact on efforts to protect food agricultural land, especially rice fields. The evaluation methodology used is to measure effectiveness, adequacy in solving problems, and equity. This research found that the Spatial and Territorial Planning Regulations were ineffective and not enough to solve the problem of conversion of agricultural land in Banten Province. This study also found that these regional regulations were not accommodated in the regency/municipal spatial planning and regional regulations so that agricultural land protection plans could not be carried out evenly in Banten Province.

**Keywords** : Policy Impact Evaluation, Spatial and Regional Layout Plan (RTWR), Land conversion

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## I. INTRODUCTION

### A. Background

The Banten Province spatial and regional planning plan is contained in Banten Province Regional Regulation (Perda) Number 5 of 2017, which is a revision of Banten Provincial Regulation No 2 of 2011 concerning the Banten Province Regional Spatial Plan for 2010-2030. The Regional Regulation on Spatial Planning contains a strategic plan for Banten Province spatial planning for a period of 20 years, and can be reviewed every 5 years. One of the reasons for the existence of the Regional Regulation on Spatial Plans and the Banten Province

area is in the context of realizing sectoral development that is integrated between regions in Banten Province to support regional economic growth and achieve community welfare. (Bappeda Banten Province, 2017).

The Regional Regulation on Spatial Plans for Banten Province is basically one of the guidelines in preparing regional long-term development plans (RPJP) and medium-term development (RPJM). In a broader sense, the preparation of the RPJPD and RPJMD must be in accordance with the spatial and regional planning that has been the guideline for regional development for a certain period of time. Furthermore, the 2010-2030 Banten Provincial Spatial Plan



Regional Regulation is also a guideline in realizing integration, linkage, and balance of development and development between districts/cities and harmony between sectors.

In Regional Regulation No. 5 of 2017, the scope of the Spatial and Regional Planning of Banten Province is divided into 3 Development Working Areas (WKP). WKP 1 covers Tangerang City, Tangerang Regency and South Tangerang City. WKP 2 covers Serang City, Cilegon City, and Serang District. WKP 3 covers Pandeglang Regency and Lebak Regency. Each WKP has regional characteristics and spatial planning concepts which are regulated in detail in the regional regulation.

WKP 1 is an area that is planned to become an area for industrial, service, trade, agriculture, settlement or housing development, and education. WKP 2 is designed to be a development area for government, education, forestry, agriculture, industry, tourism, services, trade and mining activities. While WKP 3 is an area that is planned to be a concentration of forestry, agriculture, plantation, mining, tourism, marine and fishery activities.

From the division of the Development Working Areas above, it can be seen that agriculture is a very important sector, considering that the three WKPs make agriculture one of the priorities. The Spatial Planning and Territory Planning Regulation also stipulates that the area of agricultural land is 196,000 hectares, both wet and dry agricultural land. The commitment of the Banten Province Regional Regulation on Spatial and Regional Planning to the protection of agricultural land appears to be quite strong considering that the area of land in the regional regulation is much wider than the area of agricultural land stipulated in the Spatial Plan owned by 8 Municipal Districts in Banten Province at the same time.

However, the implementation of the Regional Regulation on Spatial Planning in Banten Province, especially in the agricultural sector, was faced with the condition that there were many land conversions that turned into residential and industrial functions. A study by the Faculty of Agricultural Industrial Technology at Padjadjaran University in 2019 in collaboration with the Banten Provincial

Agriculture Office shows that during the 2018-2019 period there was a change in land use in Banten Province reaching 3,861.09 hectares, most of which were agricultural land. (Faculty of Agricultural Industrial Technology, University of Padjadjaran: 2019)

In the 2017 Technical Study of Regional Regulations on Spatial Plans and Regions for the Province of Banten, an agricultural area of approximately 196,000 hectares has actually been designated, consisting of both wet and dry land agriculture. Especially for designated agricultural areas, the concept of Sustainable Food Agricultural Areas (KP2B) has even been created which is strengthened through Regional Regulation No. 5/2014 Concerning the Protection of Sustainable Food Agricultural Land which stipulates a land area of 169,515.47 hectares as special agricultural land. (LP2B Study Document, Banten Provincial Agriculture Service: 2019).

However, in practice, the conversion of agricultural land and plantations continues to occur. The Evaluation Study of Regional Regulations on the Protection of Sustainable Agricultural Areas from the Banten Provincial Agriculture Office shows that spatial planning/RTRW implementation is still the biggest contributor to reduced agricultural land and plantations throughout Banten Province. The mixing of designated areas for agriculture and plantations with designated areas for industry, settlements and mining in the division of Development Working Areas (WKP) in the Spatial Plan of Banten Province has opened up space for the conversion of agricultural land into residential and industrial areas. In this case the land conflicts that occur between the community and property entrepreneurs that are rife in Banten Province at this time are an indirect impact of the conflicting interests of maintaining agricultural and plantation areas by opening industrial areas and new settlements.

In a policy evaluation study of the Banten Province Spatial Plan 2010-2030 which is carried out periodically every 5 years in 2015 (Bappeda Banten Province: 2017) it can be seen that one of the strategic issues underlying the issuance of Regional Regulation No. 5 of 2017 concerning

Provincial Spatial Plans Banten is characterized by many conversions of agricultural land, plantations and forestry into industrial areas and settlements. Land conversion occurs on a large scale, especially along the north coast of Tangerang Regency in line with the North Beach reclamation plan which will be used as an integrated residential area, the Maja and Bayah areas in Lebak Regency which have changed their function to become residential areas, industrial areas, and warehouses, as well as Economic Zones Specifically for Tanjung Lesung Pandeglang which is projected to become a tourist and industrial and residential area.

The reduction in agricultural land is exacerbated by the increasing escalation of disasters such as floods and landslides as a result of the illegal exploration of minerals and minerals. Exploration for minerals and minerals is also carried out in areas designated as protected areas and plantation and agricultural cultivation. The conversion of agricultural land and plantations to industry and settlements ultimately made the Banten Provincial Government's efforts to maintain food security and self-sufficiency less than optimal.

Based on the description of the problem indications that the author has put forward, the writer is interested in conducting more in-depth research regarding the Impact Evaluation of Spatial and Regional Planning Policies Related to the Transfer of Functions of Food Agricultural Land in Banten Province.

### **Formulation of the problem**

Based on the background of the problems above, this study identified the following research problems, "**How to Evaluate the Impact of the Policy on Pouring Arrangement Plans and Areas Related to the Transfer of Functions of Food Agricultural Land in Banten Province**

### **Benefits of research**

The results of this study are expected to provide an overview to policy makers of the Banten Provincial Government regarding how to evaluate the impact of the regional regulation on spatial and regional plans for the protection of sustainable food agriculture land (LP2B) in Banten province. In addition,

this research is also expected to provide evaluation material for the Provincial Government of Banten regarding the planned revision of Regional Regulation No. 5 of 2017 concerning Spatial Planning and Territory of Banten Province for 2010-2030.

### **Literature review**

One theory of area-based development, particularly related to the development of agricultural and plantation areas, is the theory of land rent. The classic land rent theory was developed by David Ricardo (1809) regarding economic rent or location rent which states that 1. The city only has 1 centralized place. 2, The city is located on a flat area. 3, transportation costs are in accordance with the distance to be traveled in all directions, transportation costs to the city center increase if the distance is farther from the city center. The City Center is considered as an area that has the highest degree and dependability, the further outwards the lower the degree of accessibility. 4, Every inch of land will be sold to the highest bidder. In this case everyone has the same opportunity to own land according to their financial ability, and there is no limit to the amount of land one can own. In Ricardo's concept there are also no restrictions on land use (land use zoning) or environmental pollution standards, and eliminates state interference.

According to Anwar (1990) there are at least 4 types of land types. First, ricardian rent, which is related to land quality and scarcity functions. Second, locational rent is related to the function of land accessibility. Third, ecological is related to the ecological function of land, and fourth, sociological rent is related to the social function of land. In this case Ricardo's theory is basically built on the level of fertility and land quality or ricardian rent, especially in the agricultural sector. The assumption built by Ricardo in this theory is that on land, even though it is fertile, if the land is only used for farming and fulfilling daily needs, then the land has no rent value. The land rent will only be valuable if there is an increase in population which has an impact on increasing demand for land and food, so that the demand for infertile land also begins to increase. The rent value of land is affected by the quality of the land, while the degree of land quality is determined by the surplus of the land in

question when good land becomes scarce and expensive.

Meanwhile, at almost the same time, Von Thunen saw that land rent was not only assessed from the aspect of land fertility, but also its location function. The difference in land rent is determined by the costs required to manage it. The farther the location of the land from the center, the greater the required transportation costs so that the land rent value will be smaller. Conversely, the closer a land is from the city center, the greater the land rent.

Raleigh Barlowe (1978) then developed the theory of land rent from a different perspective. According to Barlowe Land Rent contains two meanings, namely contract rent and economic rent. Contract rent implies land rent, namely the value if the land is leased for a certain period of time. Meanwhile, economic rent implies economic added value or income added value above the cost of land used in the production process. According to Barlowe, the allocation of land resources is determined more by economic added value, not by rent. In other words, the shift in land allocation, including the conversion of agricultural land into non-agricultural land, is largely determined by economic rent or land rent (Efendi Pasandaran et al, 2015).

Based on Barlowe's theory, land that has a larger economic land rent value will have the potential to displace land that has a smaller land rent. In general situations, according to Barlowe, the economic value of land is occupied by industrial activities, followed by trading activities, settlements, and lastly intensive and extensive agriculture. Based on this sequence, if the allocation of land resources is left entirely to the market mechanism, it is certain that large-scale conversion of agricultural land will occur for industrial, residential and trading activities.

The research also uses William Dun's (2018) model of policy evaluation criteria to measure the performance of the Banten Provincial Spatial and Territorial Planning policy in Perda 5 of 2017. Dunn develops five criteria for evaluating the performance of a policy, which include: 1) Effectiveness; 2) Adequacy; 3) Equity; 4) Responsiveness; 5) Accuracy. Effectiveness is assessed to find out the desired results through the policy

have been successful or not. Adequacy criteria are assessed to measure how far the results that have been achieved can solve the problem. Meanwhile, equity is used to see whether costs and benefits can be felt equally among different communities. Responsiveness is measured to find out whether the policy has value and can satisfy the community. While accuracy is assessed to find out whether the results achieved are beneficial to society or not.

### Research Results and Discussion

Viewed from the aspect of effectiveness, Regional Regulation No. 5 of 2017 concerning Spatial Plans for the Banten Province regarding the problem of conversion of agricultural land functions, this study found that since before this Regional Regulation was promulgated in 2017 paddy field farming in Banten Province has decreased significantly. Based on data released by BPS, the area of paddy fields in Banten Province is decreasing by thousands of hectares every year.

The enactment of Regional Regulation No. 5 of 2017 has apparently not reduced the trend of conversion of agricultural land in Banten Province. The area of paddy fields in Banten Province in 2017 was recorded at 213,183 (BPS, 2017). The trend of decreasing paddy fields will continue in 2020 and 2021. BPS Banten Province released findings of paddy fields in Banten covering an area of 198.52 thousand hectares in 2020, and 193.81 thousand hectares in 2021. (BPS Province of Banten, 2021)

Meanwhile, the area of paddy fields set forth in the Perda on Spatial Planning in Banten Province is 196 thousand hectares, of which 124,263.54 are designated for wetland agriculture, and 71,736.56 are designated for dry land. The area of paddy fields found by BPS is getting smaller from year to year compared to the area of agricultural land stipulated in the Regional Regulation on Spatial Planning for Banten Province, which shows that the Regional Regulation on Spatial Planning is not effective enough in curbing the trend of converting agricultural land into industrial and residential areas.

From the aspect of adequacy, one of the spirits of Regional Regulation No. 5 of

2017 concerning Spatial and Regional Planning of Banten Province is in the context of realizing sectoral development that is integrated between regions in Banten Province to support regional economic growth and achieve community welfare. One of the priority areas in the regional regulation is the agricultural sector, in which the Provincial Government of Banten is targeting self-sufficiency in the food sector as well as making Banten a food barn for the island of Java.

The need for food, especially rice in Banten Province annually reaches 1.349 million tons for food consumption in 8 districts and cities.

Meanwhile, rice production in the last 3 years has seen an increase. Banten Province is even included in the top 9 national rice producers. BPS data on March 1 2021 shows that Banten Province produces 1,655,170 tons of dry unhusked rice or the equivalent of 937,815 tons of rice. (BPS, March 2021).

Table 1.2

<b>Banten Rice Production</b>		
<b>Description</b>	<b>Year</b>	
	<b>2020</b>	<b>2021</b>
Planting Area (ha)	314.241	336.711
Harvest Area (ha)	303.732	325.333
Productivity (ton/ha)	48,41	50,88
<b>Production (ton)</b>	<b>1.470.503</b>	<b>1.655.170</b>

So, seen from the aspect of adequacy, the Regional Regulation on Spatial Planning and Territorial Planning for Banten Province does not appear to be effective in reducing the trend of conversion of agricultural land. However, the enactment of the Regional Regulation on Spatial Plans for Banten Province related to development plans in the agricultural sector was accompanied by an increase in rice production capacity for 3 consecutive years from 2019 to 2021. So that the problem of food needs, especially rice in Banten Province was relatively resolved, even experiencing a production surplus . Synchronizing the development of the agricultural sector with other sectors, especially infrastructure development in the Spatial and Territorial Plan of Banten Province, plays an important role in efforts to increase the productivity of the agricultural sector.

Even so, the development plan for the agricultural sector contained in the Perda on Spatial Planning is not the only factor in solving the problem of food needs in Banten

Province. Incentification and intensification in the agricultural sector also play a major role in supporting increased food productivity, especially rice. The reduction in agricultural land in several northern regions of Banten Province is offset by the intensification and incentives of the agricultural sector in the Southern region, so that agricultural production is maintained, even increased.

Viewed from the aspect of equity, the problems that arise behind the trend of conversion of agricultural land in Banten Province cannot be separated from the synchronization between regulations used to protect agricultural land in Banten Province whether owned by the Central, Provincial or Municipal Governments. Spatial planning and the area of Banten Province as stipulated in Regional Regulation 5 of 2017 has determined agricultural allotment areas, both wet and dry land with an area of 196,000.10 (hectares). Meanwhile, areas designated as agricultural areas include Pandeglang Regency, Lebak Regency, Serang Regency,

Tangerang Regency, Serang City and Cilegon City. The area designated for agriculture in Perda 5 of 2017 seems to conform to the area of agriculture in Perda 5 of 2014 Concerning the Protection of Agricultural Land for Food (LP2B) Banten Province covering an area of 169,515 hectares.

However, the area of land designated for agriculture, both stipulated in the Regional Regulation on Spatial Plans and Territories of Banten Province and stipulated

in the Regional Regulation on LP2B Protection, does not seem to be accommodated in the Regency/City Spatial Plan and Area. This can be seen from the accumulation of agricultural land in the Regency/City RTRW Perda which is much smaller than the allotment of agricultural land in the Provincial RTRW Perda. Even when compared to the allotment of agricultural land in the Perda LP2B, the area of land allotment for agriculture in the Regency/City RTRW in Banten Province is also smaller

#### COMPARISON OF RICE LAND IN BANTEN PROVINCE

Agricultural Area (ha)					
Ministry of Agriculture Field Audit (2010)	Large LP2B (2014)	Citra Satelite 2017	Paddy Field Area (BPS Banten)	Regional Regulation on Regional Spatial Planning for Banten Province (2017)	Regional Regulation on Regency/City Spatial Planning (2020) (accumulation)
191.020	169.515	199.185	193.810	196.000	136.216

Source : Regional Regulation on RTRW Banten Province  
 : Regional Regulation on Regency/City Spatial Planning  
 : BPS Banten in Figures 2021.

The discrepancy between the area allotment of agricultural areas in regulations supporting the protection of agricultural land, both the Perda RTRW and LP2B, ultimately opens up space for land conversion on a large scale in several areas in Banten Province. From the table above, the potential for conversion of agricultural land can be seen from the difference between the actual paddy fields, coupled with the determination of agricultural allotment areas both in the RTRW of Banten Province, and LP2B with allotment of agricultural land in the Regency/City RTRW. From this difference, it can be obtained that the potential for land conversion is 60,2016 hectares when referring to the comparison of the Provincial and City District Spatial Plans, or 33,299 hectares when referring to the area of rice field allotment in the LP2B Regional Regulation.

So from the equitable aspect of Regional Regulation No. 5 of 2017 it appears that it is not sufficient to bring benefits to the 8 City Regencies in Banten Province, considering that the area of land stipulated in the Regional Regulation is not accommodated in the Spatial Plans owned by 8 City Districts in Banten Province. In fact, the accumulated area of agricultural land stipulated in the Perda on Spatial Planning and Territories for each district/city in Banten Province appears to be far smaller than the area of agricultural land stipulated in the Perda on Spatial Planning and Territories of Banten Province.

#### Conclusion

This research finally found that Regional Regulation No. 5 of 2017 concerning Spatial Planning and Territorial Planning for Banten Province appears to be not effective enough in reducing the trend of conversion of agricultural land, which has actually increased since the Regional

Regulation was promulgated. The regional regulation is also not sufficient to solve the problem of conversion of agricultural land, considering that the area of agricultural land has been decreasing in recent years, as a result of the widespread conversion of agricultural land to industrial and residential areas. However, the reduction in paddy fields does not affect the productivity of Banten Province in producing rice. Rice production in the last 3 years has shown an increase. The problem of food needs can be overcome with agricultural land intensification and incentive programs as well as synchronizing the development of the agricultural sector with other sectors.

From the aspect of equity, the concept of protection of agricultural land in the Spatial and Territorial Planning Regulations for Banten Province is also not accommodated in the Spatial and Territorial Plans owned by 8 other districts/cities. In fact, the accumulated area of agricultural land owned by the Regional Regulation on Spatial Plans and Regencies/Cities in Banten is far smaller than the area of agricultural land stipulated in the Regional Regulation on Spatial Planning and Territories belonging to the Provincial Government of Banten. The concept of protecting agricultural land in Regional Regulation No. 5 of 2017 has also not been accommodated in regulations that specifically provide protection for agricultural land, namely the Regional Regulation on Sustainable Food Agricultural Land (LP2B), considering that this regulation has not been revised since it was promulgated in 2014 until now.

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