



# Spatial Planning of Serang City Area in Realizing Food Security of Urban Communities Scope: Environment and Agriculture

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**Abstract.** Spatial and regional plans as stipulated in The City of Serang Regional Regulation No. 6 of 2011 on The Urban Planning Plan of 2010–2030 there are still many that failed implemented. The increasing number of residents accompanied by increased housing needs and other supporting facilities makes an increase in land use that has an impact on changes in land transfer, then changes in land functions that are more intended for the residential and trade sectors, making other sectors such as water and agriculture look likely to experience a decrease in land-use area. In addition, the development of settlement areas has encouraged a shift in the function or transfer of land functions from green open spaces, conservation land, cultivation areas, or protected areas due to high land use for residential areas. The various problems behind this research make the reason that regional spatial planning has a strategic role in regional development in realizing food security for the people of Serang City. With descriptive qualitative approach is believed to be obtained research results that can capture the spatial planning process of the City of Serang area. Have been recognized that the policy of protection, sustainable food agricultural land the most determines in the spatial plans. In the Spatial plants to a driving force for the success of the agriculture sector as good as all-natural resource sectors in Indonesia. But the issue that always comes up is the difficulty of allocating limited space resources in a balanced manner is this the point there are often conflicts of interest. in spatial plan arrangement expected to location space for the activities of all community groups for the welfare of all of them and leave some others for generations to come.

**Keywords:** Spatial planning · Land Transfer · Food Security

## 1 Introduction

Urban areas are generally at the center of economic and business activities, industrial centers, and political defense centers so that relatives cities must be arranged in such a in development of urban areas no one is harmed in the future to support the needs of the increasingly increasing community. Spatial planning as the main product of spatial arrangement is spatial matra in the development of regions and cities formed based on

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the agreement of all parties. Spatial plans should consistently be a reference in the implementation of development in Indonesia so that to realize national development goals and encourage investment in all fields, a spatial plan needs a more operational level both at the Provincial and Regency / City levels. Serang City document in 2018 figures mentions that Serang City is the second smallest area based on its region after South Tangerang City. While based on land use patterns are known to be many agricultural areas. This makes a Serang City naturally an agricultural city even though the contribution of the farming sector to the PDRB is much smaller, which is + 6% only in the last five years. Therefore, with its natural modal, into the city has a chance to develop the agricultural sector of food that is still potential in some sub- districts, to support food security in Serang City while improving the welfare of people who have not fully transformed into the secondary and tertiary sectors. in Serang City even has the opportunity to exploit the potential of agriculture, plantations, and livestock to sustain industries based on the utilization of agricultural products as raw materials that are widely developed throughout the northern part of Banten Province, as well as meet the needs of many markets and shopping centers in Serang city and surrounding areas.

The Serang City Regional Regulation No. 6 of 2011 on The Plan of Spatial Planning of The City of Serang Area 2010–2030, in Article 6 explaining the policy of spatial arrangement of Serang City as follows:

- a. the development of the activity center evenly and in adversary;
- b. the determination of specific service center functions and has a hierarchy of service levels;
- c. the development of residential areas in each growth center equipped with supporting facilities and infrastructure;
- d. development of the Banten Provincial Government Center;
- e. development of regional educational facilities;
- f. provision of supporting facilities and infrastructure in activity centers and between activity centers by applicable standards;
- g. increasing economic growth on the economic basis of Serang City through the trade, services, education, and tourism sectors;
- h. the development of cultivation areas that have regional and national economic value;
- i. control the development of cultivation activities so as not to exceed the carrying capacity and capacity of the environment;
- j. the conservation of protected areas and water resources for the ecological balance of the city;
- k. development and arrangement of religious tourism Banten Lama;
- l. the development of the concept of ecotourism to the potential of natural tourism areas; m. management and spatial arrangement for the informal sector;
- m. provision of space and disaster evacuation routes;
- n. pedestrian provision in the city center;
- o. determination of RTH of 30% of the area of Serang City; and q. improvement of regional functions for the defense and security of the State.

## 2 Theoretical Foundation

### 2.1 Planning

Planning is a management process that determines goals and how to achieve them. Plan a significant role in the scope because it becomes a determinant and to gives direction to the goals achieved. And with good planning, then a job will not be messy and directionless. Good planning and well structure will influence the ability of the goals that have to be determined.

Can be viewed as a part of any activity that is more just a reflex based on feelings alone. But importantly, planning is an important component in every social decision, every family unit, 16 groups, communities, and the government is involved in planning when making decisions or wisdom to change something in itself else its environment is an understanding of planning or planning. (Ridwan and Sodik, 2017:24) According to Hasibuan (2016: 22), planning is essentially one of the management functions used by humans, units, or institutions to study and solve a problem. Plans can also be informal plans and formal plans. An informal plan is an unwritten plan and is not a common goal of members of an organization. Meanwhile, a formal plan is a written plan has bought outside an organization within a predetermined time. Formal plans that a create outside to reduce ambiguity and create opportunities about what to implement.

### 2.2 Spatial Concept

Structural forms and patterns of utilization of space are both planned and not 42 planned. Spatial planning needs to be a plan to more easily accommodate the continuation of the development of the area concerned is the understanding of spatial arrangements by Rahardjo Adisasmita (2012: 64).

In article 1 No.2 of the Law on Spatial Arrangements, what is meant by spatial planning is the structural form of space and space patterns. The structural shape of space is the arrangement of elements that shape the hue of the natural environment, social environment, artificial environment that hierarchically relates to one another and other. The layout is a planned spatial arrangement, While regulation of settings is a naturally formed spatial arrangement, such as river flows, caves, mountains, and others. A spatial arrangement is a shape of space structure, Pattern arranged nationally, regionally, and locally. National and called is National Regional Spatial Plan, the Provincial Spatial Plan, and the City Area Spatial Plan (RTRWK). Regulation settlement centers and network of infrastructure, facilities that serve as supporters of social-economic activities communities that hierarchy have functional relationships. In the same regulation, namely Article 1 number 5 of the Spatial Arrangement Law when is intended by the spatial arrangement, namely a system of the spatial planning process, utilization of space concepts, and control of space utilization.

### 2.3 Spatial Plan

According to Supriyanto (2015: 55), spatial arrangement is a process that includes a method of planning, implementing, or utilizing space and controlling the implementation

or utilization of space that must be related to each other. So in the spatial arrangement contained an understanding of comprehensive spatial arrangements.

A regional spatial plan or RTRWK is the outcome of spatial planning in a region where geographical unity and all related elements whose boundaries and systems are determined based on administrative aspects. A spatial plan is a create, fundamentally space has limitations, so it takes regulations to organize and plan space to be is exploited effectively. The results of regional spatial planning are pouring into the documents in.

the to of regional spatial plan maps. Urban spatial plans are very complex, so it is necessary to be more noticed and well planned. Areas/zones in urban areas are divided into several zones as stated in the Regional Regulations.

According to Adisasmita (2012: 256), The purpose of spatial planning is to disseminate activities of the development of a sector, so that utilizing land and 44 spaces can be are done optimally, efficiently, and harmoniously. The purpose of spatial planning is to direct the structure and location of its functions balanced in the frame to human resource utilization, to achieve optimal and efficient development results for the improvement of human quality and environmental quality is the purpose of the spatial plan proposed by Rahardjo Adisasmita (2012: 257)

1. The implementation of environmentally-minded space based on the insight of the archipelago and national security;
2. Implementation of arrangements for the utilization of protected area space and cultivation areas
3. The achievement of the utilization of quality space
4. Create coherence in the use of natural resources and artificial resources with due regard to human resources
5. Increase the utilization of natural resources and artificial resources to improve the quality of human resources
6. Realizing the protection of space functions and preventing and tackling negative impacts on the environment
7. Realizing balance, well-being, and security. A spatial arrangement as a process of spatial planning, utilization of space, and control of space utilization is a unity of systems that cannot be apart from each other. Creating a suitable spatial arrangement requires matching legislation between regulations at a high level to rules at the bottom rate so that there is coordination in spatial arrangement.

## 2.4 Concept of Food Security

According to Baliwati. et al. (2006), the concept of food security covers various aspects. It began to emerge in the 1970s as food security began to become an internationally growing issue. This year the draft of food security is focused on food availability at the national and international level rather than at the household level. The availability of food in this tofu focused on providing rice as a staple of Indonesian society. In general, food security includes 4 (four) aspects, namely adequacy, access, quality, and time.

The FAO conference in 1984 stated that the basics of food security are to ensure the adequacy of food availability for humans or communities and the guarantee of every individual to be able to obtain food. The definition of food security refined by the

International Congress of Nutrition (ICN) in 1992 into household-scale food security is the ability of households to meet the food adequacy of their members, continue to live healthily, and be can carry out daily activities (Rachman. et al. 2002).

In the Law on Food, food security is a condition of food fulfillment for households that are is mirroring the availability of sufficient food in the amount and quality, safe, equitable, and affordable. According to this definition, food security consists of the elements:

- a. Food availability
- b. Accessibility describes the ability to master sufficient food
- c. A security that can be construing as stability (pointing to internal vulnerabilities such as production decline) and reliability (pointing to external is vulnerabilities such as fluctuations in international trade)
- d. Sustainability is the continuity of access and availability of food indicated by the sustainability of agricultural businesses.

## 2.5 Research Method

This research uses qualitative research methods. According to Moleong (2017: 6), qualitative research is a study that is to understand the phenomena of what is experienced by the subject of research such as behavior, perception, motivation of actions and others in a holistic manner and by way of description in the form of words and language, in a specific context that is natural and by utilizing various natural methods. From the above explanation, be said that qualitative research methods are the way that researchers use in is collecting appropriate and appropriate data in their research, which is are intending to understand phenomena about what is experienced by the research subject.

In this review, researchers studied this study with descriptive methods that directly describe an object, phenomenon, or social setting with integrity in narrative writing. Therefore, data, facts are put together in the form of words or images rather than numbers. Describes something means describing what, why, and how an event can happen. Descriptive research methods explain that the state of an object that will examine corresponds to the actual country.

## 3 Results and Discussions

### 3.1 Overview of Serang City

Serang City is a new area from the expansion of the Serang Regency of Banten Province. Serang City has 6 (six) sub-districts, namely; Curug Subdistrict, Walantaka Subdistrict, Cipocok Jaya Subdistrict, Serang Subdistrict, Taktakan Subdistrict and Kasemen Sub-district. On November 2, 2007, Serang City was inaugurated based on Law No. 32 of 2007 on the Establishment of Serang City.

Astronomically, Serang City lies between 5°99' – 6°22' South Latitude and 106°07' – 106°25' East Longitude. When using the coordinates of the UTM (Universal Transfer Mercator) Zone 48E system, the Serang City area is located at coordinates 618,000 m to 638,600 m from West to East and 9,337,725 m to 9,312,475 m from North to South.

Based on the results of the Population Census in 2020, the population of Serang City in 2020 is 692,101 people. Judging by gender, the male population is 353,971, more than the female population of 338,130. The level of population density in the Serang City area is 2,595 people / km<sup>2</sup>, where most of the population inhabits urban areas in Serang City.

### 3.2 Discussion

The macro spatial plan and of Serang City will have applied by the Regional Development Planning Agency Serang City. The Office of Spatial planning and Buildings of Serang City, as a technical implementer who should translate the contents of the Serang City Regional Regulation on Spatial and Regional Plans into a program to achieve its goal of only carrying out its principal duties and functions. "Broadly speaking, the Spatial Office has two, the first is the control of spatial utilization and the second is building licensing. One unit because the control is manageable through licensing. Suppose the utilization in the residential area, which is issued is a settlement permit or and as an example is a shophouse permit. But after seeing if we can set up a store was love a license. So specifically for the arrangement of the area, the spatial service has authority there. Who has the authority of Regional Development Planning.

Agency, because we are here only controlling development. That's all, not until it's structuring." According to Bappeda, it is indicating that it indicates a lack of coordination or communication between the government institutions of Serang City in implementing Serang City Regional Regulation No. 6 of 2011 concerning the Urban Planning plan for 2010–2030. Whereas the type application that uses a multi- organizational structure influences is coordination between organizational units and aspects of cooperation between actors becomes very important.

Article 7 of the Regional Regulation of Serang City No. 6 of 2011 concerning the Spatial Plan of the Serang City Area 2010–2030 mentioned the strategy of the regional spatial plan in Serang City:

- (1) Strategies for developing the center of activities evenly and in a living as referred to in Article 6 letter an include:
  - a. establishing the Serang City Service Center;
  - b. develop the city's sub-service center evenly by establishing the division of Serang city area into 4 (four) sub-city service centers;
  - c. develop environmental centers that serve the scale of the city area environment proportionally;
  - d. connecting between the city center subs and between each sub town with the city center through a network of tiered roads with patterns of equitable movement;
  - e. support the services of the city center and sub-city centers in a balanced manner;
  - f. directing cultivation centers that support downtown and sub-city scale services;
  - g. develop a network of urban centers, sub-city centers, and neighborhood centers that are parallel and spread in a balanced and interrelated manner into a unified city system to the city center;

- h. encourage the development and development of environmental centers that are aligned and balanced;
  - i. develop social, cultural, economic, and community service activities in the sub-regions of the city evenly;
  - j. develop potential sectors to encourage increased investment and public income.
- (2) Strategies for establishing specific service center functions and having a hierarchy of service levels as referred to in Article 6 letter b include:
- a. determine the hierarchy of regional and local service activity centers that include social service, commercial, and tourist activity centers;
  - b. divide the city area into 5 (five) parts of the city area, each served by service centers, and establish the role, function, and structure of the main activities to be developed;
  - c. placing social and economic facilities in the centers of activity by the range of services so that the hierarchy of city activity centers, sub-centers of urban activities to the center of activities at the village and village level evenly;
  - d. distribute the utilization of built-up space in the activity center evenly to prevent dense residential areas;
  - e. controlling the development of activity centers to maintain a balance of construction between regions.

An implementation of the article is Government of Serang City set out a plan for the space structure of Serang City in Article 9 and Article 10 that shared into (6) districts of Serang City. As follows (Table 1.):

Law No. 41 of 2009 states that Sustainable Food Agricultural Land is a field of agricultural land that to has been assigned to be protected and developed consistently to produce basic food for national food independence, resilience, and sovereignty. The word “protected” certainly means that any field of agricultural land that has been “designated” as Sustainable Food Agricultural Land should not be diverted for nonfarm purposes by anyone except in a certain is the state as mentioned in the preliminary section upfront. Any act or action that results in the transfer of sustainable food agricultural land functions into nonfarm land can be subject to administrative penalties or criminal sanctions. In the Regional Regulation of Serang City No. 6 of 2011 Article, 56 ( g)states that sustainable agricultural land can be switched to only for the public interest as outlined in Law No. 41 of 2009. Article 59 of the Serang City Regulation No. 6 of 2011 also states that residential areas are not allowed to be is built-in protected./ conservation areas and agricultural land with irrigation. Irrigation development is an irrigation attempt to as an effort to improve food security in the construction of irrigation (the quantity) of water to be used to irrigate agricultural land must be known and Calculated precisely so that irrigation will run efficiently. Therefore, the are regulation of water by irrigation should be done carefully so that our agricultural land can be is irrigation optimally. The construction of irrigation and water arrangements that have been making well are hoping to avoid crop failure so that food security will improve, as is done in Sawah Luhur. Serang City in the region has built proper irrigation so that their farm is sufficient water and does not fail to harvest.

**Table 1.** Serang City Area Space Structure Plan

Regional Space Structure Plan		Space Function	
		Primary	Secondary
Serang District	City Service Center	Education, education, trade, services	Housing, dryland agriculture, and artificial tourism
Cipocok Jaya District		Education, education, trade, services	Housing, dryland agriculture, and artificial tourism in the
Kasemen District	City Service Sub-Center	Religious tourism and other tourism, sustainable agriculture, fisheries, warehousing, and industry	Phome
Curug Subdistrict		Education, trade and services, large-scale housing, and	Agribusiness, as Well as artificial tourism
Walantaka District		Large-scale housing Trade and services, industry, and	Agriculture dry land;
Taktakan District		Water,agriculture, agribusiness and	Housing, merchants and services, and warehousing and military

Source: Article 9 and Article 10 of the Serang City Regional Regulation Nomor 6 of 2011 on the Urban Planning Plan of Serang City Area 2010–2030

Reporting from the banten.com News (<https://kabarbanten.pikiran-rakyat.com/serang/pr-59629925/revisi-rtrw-kota-serang-ancam-lumbung-pangan>), the spatial planning strategy is feared to have an impact on rice fields that can threaten the food barn area in Serang City. Serang City Agriculture Office expressed its attention to the is Sawah Luhur area that used an industry area that will then have an effect on rice fields and also have an impact on food security in Serang City. That farmers in Serang City do not sell their agricultural haul outside the area for food security in Serang City. Koeswahyono (2012) stated that it must be approved that the policy of protection of sustainable food agriculture land must specify spatial planning. The spatial plan is likening to a driving force for the success of the agricultural sector well all-natural resource sectors in Indonesia. But the issue that always comes up is the difficulty of allocating limited space resources in a balanced manner so that at this pointing there are often conflicts of interest. Nurhasan Ismail (2018) said that spatial arrangement is hoping to allocate space for the activities of all community groups for the welfare of all of them and leave



some others for generations to come. The strategy for the institution of residential areas in Serang City is the actuality of an urban road network system. The strategic program is the improvement or construction of a 16.6 km axis road. The building of the road seeks to improve food security farmers need roads and bridges as access to market their crops from land to market.

## 4 Conclusion

In addition, the development of settlement areas has encouraged a shift in the function or transfer of land functions from green open spaces, conservation land, cultivation areas, or protected areas due to high land use for residential areas. The various problems behind this research make the reason that regional spatial planning has a strategic role in regional development in realizing food security for the people of Serang City. With descriptive qualitative approach is believed to be obtained research results that can capture the spatial planning process of the City of Serang area. Have been recognized that the policy of protection, sustainable food agricultural land the most determines in the spatial plans. In the Spatial plants to a driving force for the success of the agriculture sector as good as all-natural resource sectors in Indonesia.

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## 5 Suggestion

1. The government of Serang City needs to concretely formulate the orientation of urban development that is to be is synergized into spatial and regional policies. Consensus things that the author means are clarity of purpose, the obligation to the existence of programs, the intelligibility of duty of each institution in implementing spatial structuring policies, and mechanisms of supervision and sanctions.
2. Concrete policies must be followed by clarity, firmness, and certainty of implementors (institutions that carry out policies). That is to realize good coordination, instance, and stick to policy orientation.

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