

## **PATTERNS AND CHARACTERISTICS OF SETTLEMENT IN THE COASTAL AREA OF TEGALSARI URBAN VILLAGE, WEST TEGAL SUB-DISTRICT, TEGAL CITY**

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### **ABSTRACT**

The pattern of settlements may be defined as the shape or structure of homes within a region. In coastal settlements usually synonymous with urban slums and dirtied, one of the problems in the coastal area is the growing of irregular settlements, such as the establishment of semi-permanent wildbuildings that give rise to the unavailability of settlements, Therefore, it would require study or analysis of the patterns and development of coastal settlements to become a government evaluation in planning for coastal development, it was carried out on the kelurahan tegalsari coast, where the region used to be a better coastal shantype, this was done by identifying the patterns and development of the settlements, And analyzed the characteristics of tegalsari coastal settlements. The study USES rationalistic qualitative deductive methods, and will use the help of a sig application to map out residency patterns at the research site, as well as field observations of interviews, documentaries, etc, from this study it is known that coastal settlements at Tegalsari in rw I and ii have linear settlements parallel to the cybelis road and river, while at rw ix and x are the pattern of settlements surrounding the public service facilities of the tegalsari port and the tegal city, The characteristic of the tegalsari coastal settlements is noted to have a flat topographic with 0-8% of the land use for the settlements and port areas, and to have high population densities and majority of its communities working in the fishing sector

Keywords: Settlement Patterns, Coastal Areas, Characteristics

### **ABSTRAK**

*Pola permukiman dapat diartikan sebagai bentuk atau tatanan dari rumah-rumah yang berada di suatu kawasan. Pada permukiman di kawasan pesisir biasanya identik dengan permukiman kumuh dan kotor perkotaan, salah satu masalah yang ada pada kawasan pesisir yaitu mengenai pertumbuhan permukiman yang tidak beraturan, seperti pendirian bangunan liar semi permanen yang menyebabkan kekumuhan dan tidak tertatanya suatu permukiman, oleh sebab itu diperlukan adanya penelitian atau analisis mengenai pola dan perkembangan permukiman kawasan pesisir agar menjadi evaluasi untuk pemerintah dalam merencanakan pembangunan di kawasan pesisir, Penelitian ini dilaksanakan dikawasan pesisir Kelurahan Tegalsari, kawasan ini dulunya merupakan kawasan kumuh pesisir yang sekarang sudah ditata menjadi lebih baik, penelitian ini dilakukan dengan mengidentifikasi pola dan perkembangan permukiman, serta menganalisis karakteristik permukiman kawasan pesisir Kelurahan Tegalsari. Penelitian ini menggunakan metode deduktif kualitatif rasionalistik, dan akan menggunakan bantuan aplikasi SIG untuk memetakan pola permukiman di lokasi penelitian, serta observasi lapangan berupa wawancara, dokumentasi, dll untuk mengetahui karakteristik permukiman Pesisir, dari penelitian ini diketahui saat ini permukiman pesisir di Tegalsari pada RW I dan II memiliki pola permukiman linier sejajar dengan jalan dan Sungai Sibelis, sedangkan di RW IX dan X adalah pola permukiman yang mengelilingi fasilitas pelayanan umum yaitu Pelabuhan Tegalsari dan Kota Tegal, karakteristik permukiman pesisir Tegalsari berdasarkan hasil observasi diketahui bahwa memiliki topografi yang datar dengan keterangan 0-8% dengan mayoritas penggunaan lahan untuk permukiman dan kawasan pelabuhan, serta memiliki kepadatan penduduk yang tinggi dan mayoritas masyarakatnya yang bekerja pada sektor perikanan.*

*Kata Kunci: Pola Permukiman, Kawasan Pesisir, Karakteristik*

## **1. INTRODUCTION**

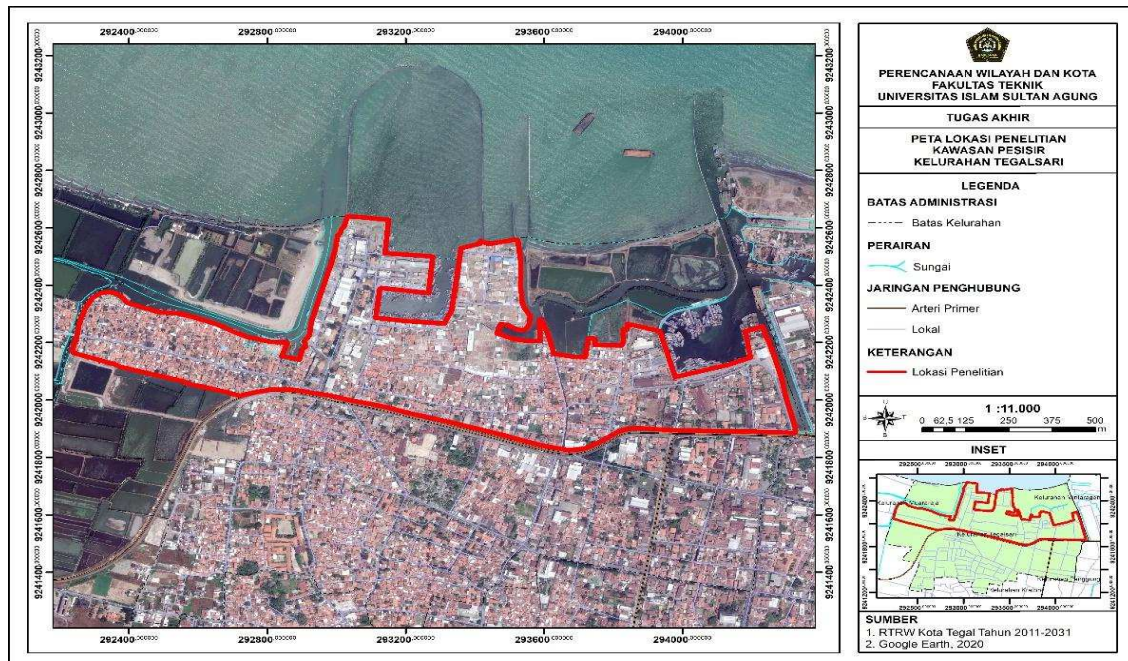
The Pattern is also referred to as a model or form that is used to design a particular activity to support the fulfillment of the objectives of the activity to be carried out (Rohmah & Fatimah, 2017). Patterns in settlements are a form or arrangement (pattern) of houses that are gathered or are in an area in a certain form. Settlements are defined as an environment that includes employment issues, economic structure and, population issues. It is not only about the distribution and equity of the population but also about the human quality that is dreamed of for future generations (Pramono, 2014). Physical and non-physical aspects can be criteria that should be met by settlements. Settlement activities are a connecting factor between the past, present and, future to improve the quality of life. Coastal settlements are areas susceptible to change, both natural and changes caused by human activity, the socio-spatial conditions and characteristics of people suggest that the environmental phenomenon of society can shape and transform coastal slums. Meanwhile, space - based policies and physical settlements often conflict with the real conditions of society (Zain et al., 2018).

Coastal settlements are usually affected by climate change where climate change is affected by rising sea levels (wulm, 2013). Climate change can induce sea-water inroads to land (rob) and cause communities in densely coastal areas to lose their homes when sea levels are rising, in addition to a constant environmental problem that would cause environmental pollution and could cause environmental damage at high rates of recovery (Wibowo et al., 2017). The city of Tegal had a fairly dense coastal settlement. According to ppp-tegal 2011, Tegalsari is a domestic area with high population and high risk of flooding and rob. Its closest proximity to the coast and flanked by two rivers makes the area adjoining the sea a frequent occurrence of rob and flooding, so the coastal settlement is then reestablished to make it more orderly and orderly. Region alignment is expected for a better and more sustainable future for all, essential to tackle three dimensions of development: economics, social, and ecological environment (Lin & hou, Based on the description above, several studies can be carried out related to settlement patterns and characteristics. However, this time the researcher will raise the pattern and characteristics of settlements in the coastal area of the Tegalsari Village by mapping buildings in the area to see settlement patterns in the coastal area of the Tegalsari Village and analyzing characteristics based on aspects of the natural physical environment, land use, socio-cultural and economic

## 2. RESEARCH METHOD

The method used in this study is a rationalistic qualitative. With data collection techniques of observation, interviews, and reviewing documents, as well as figure ground analysis techniques and drone image retrieval, the research site is in the tegalsari kelkelary area, west tegal district district. These analysis techniques are used to map buildings in the tegalsari settlements for later knowing their pattern forms. The site was taken because of the unique rarity of what used to be a chaotic slum, and then with the central government's immediate housing aid, as well as the tegalsari and tegal cities, which of course affected the environment and the social and economic conditions of their people chosen by the snowball effect, The method was used to get data from informer to informer to identify the characteristics of the tegalsari coastal settlement, and also use a secondary data of a map of Google earth, the research literature associated with the coastal region.

The research began by looking for physical and non-physical data in the form of primary documents and files that help for analysis in mapping the area, the data collection was continued by conducting interviews with policymakers and local community leaders to find out the physical, environmental and socio-cultural conditions of the people of the Tegalsari Village coastal area.



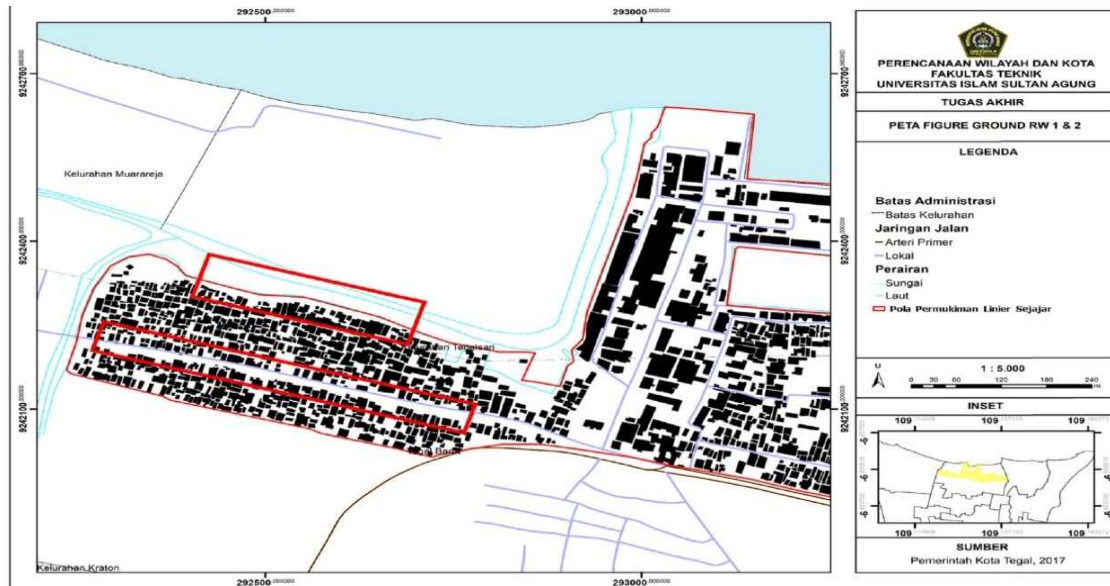
Source: *Compiler Analysis, 2021*

**Figure 1.** *Research Locations*

### 3. DISCUSSION

#### 3.1. Settlement Pattern of the Tegalsari Village Coastal Area

After observing and mapping the ground figures of the Tegalsari Village coastal area, there are some data or information related to this research, namely:



*Source: Compiler Analysis, 2021*

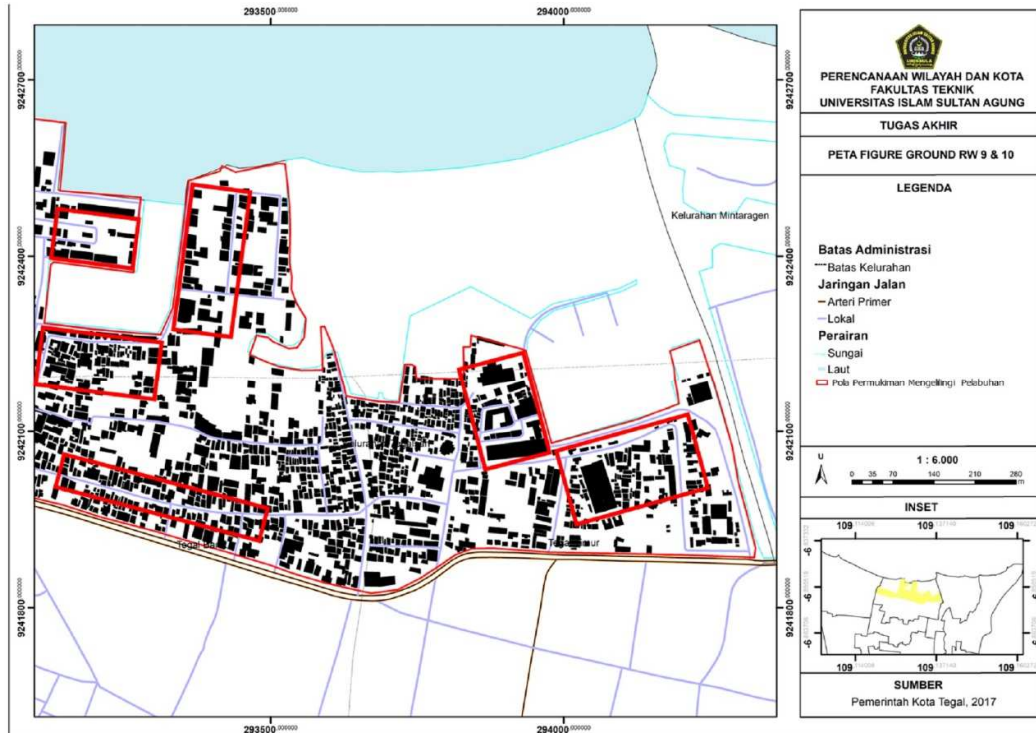
**Figure 2.** Ground Figure Map of RW I and II Research Locations



*Source : Droneview, 2021*

**Figure 3.** RW I and II Settlements Along the Sibelis River (Dronview)

Based on the results of the mapping and drone view of the coastal areas above, it can be seen that the settlement pattern in RW I and RW II Tegalsari Village tends to be linear to the south of the Sibelis River and parallel to Jalan Blanak. This type of settlement pattern is usually located in coastal areas where the majority of the people work as fishermen because where they live is close to their place of work (waters)



Sourcer: *Compiler Analysis, 2021*

**Figure 4.** *Figure Ground MAP On RW IX and X Research Location*



**Figure 5.** *RW IX and X Settlements in the Harbor Area (Droneview)*

Based on the results of the mapping and drone view of the coastal areas above, it can be seen that the settlements in RW IX and RW X Tegalsari Village are close to two Port Areas, namely the Tegalsari Port Area and the Tegal City Port Area. The settlement pattern in the RW IX and X residential areas tends to surround or close to public service facilities, namely the Port

area because the area is the center of the economy and fish processing industries in the Tegalsari Village Coast

### **3.2. Characteristics of the Tegalsari Village Coastal Area**

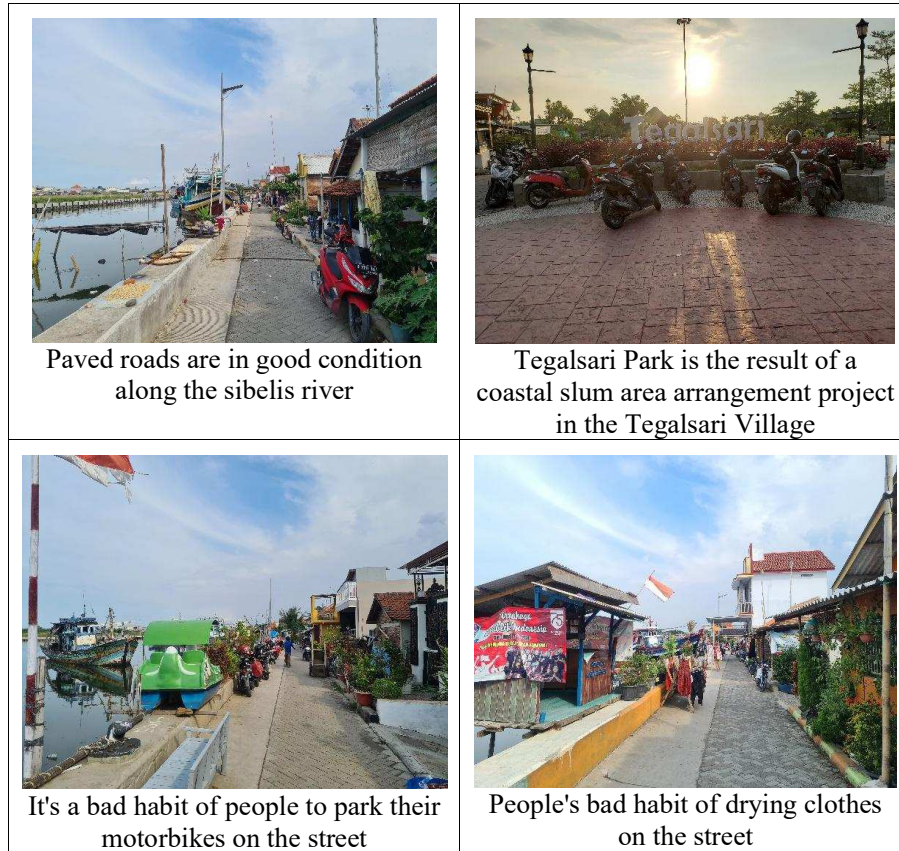
#### **3.2.1. Physical Conditions of the Tegalsari Village Coastal Area**

The definition of a coastal area is the meeting area between land and sea. The land-to-land environment includes that part of the land, whether dry or submerged in water, that is still affected by sea characteristics such as sea breezes, tides, and saltwater seepage. While the part towards the sea includes the part of the sea that is still affected by natural stages that take place on land, for example, the flow of fresh water, sedimentation, and pollution caused by human activities on land. For example, deforestation activities (Parwati, 2004).

The factors that lead to differences in settlement patterns have been explained by several experts, one of which is Jayadinata, 2003 which explains three factors that influence the characteristics of a settlement, one of which is the physical condition of nature (valleys, hills, riverbanks, in plains). grass and so on). This was also further stated by Naing, 2016 concerning the formation of residential areas due to the influence of the natural physical setting of an area.

This analysis is an analysis used to determine community settlements in the coastal area of Tegalsari Village, West Tegal District, Tegal City. Settlement conditions are heavily influenced by the socio-economic conditions of the community and their natural physical conditions. Settlement conditions in the coastal area of the Tegalsari Village cannot be separated from the influence of coastal activities that are different from areas on the mainland, in this case, the location is close to the Sibelis River and the Java Sea.

Settlements located in the coastal area of the Tegalsari sub-district are located between 2 major rivers, namely the Sibelis River and the Gung River, and there are 2 port areas, namely the Tegalsari Port and the Tegal Port. The coastal area which was synonymous with slum and dirty areas used to be in the coastal area of Tegalsari fishermen, but after receiving direct assistance from the central government through the coastal fishing village arrangement project, Tegalsari Village, the image of the dirty and dirty coastal areas has decreased, but because of the habits of the Tegalsari people who live close to the waters tend to be as it is, this affects them in maintaining the surrounding environment even though they have received assistance in area planning



**Figure 6.** *Physical Conditions of the Tegalsari Village Environment*

Based on observations in the field, settlements in the coastal area of Tegalsari Village, precisely in RW I and II are located directly adjacent to the lip of the Sibelis river where there are many fishing boats for the Tegalsari coastal community, besides that in residential areas parallel to Jalan Blanak it is close to the lip of the Sibelis river This causes all residential areas in RW I and II Tegalsari Village to have a threat of danger if high waves or rob occur. It's the same with the residential areas in RW IX and X whose settlements are parallel to the flyover, both of which are close to 2 ports in Tegal City, namely the Tegalsari Port and the Tegal Port, meaning that the RW IX and X areas also experience the same problems as RW I and II.



**Figure 7.** *Environmental Problems in the Tegalsari Village Coastal Area*

### **3.2.2. Condition of Land Use in the Tegalsari Village Coastal**

Area The coastal area of Tegalsari Village is to the north of Jalan Raya Pantura, the area is a densely populated residential area, especially in RW I and parts of RW II, in this area the amount of land is very limited, therefore its beneficiaries must comply with the rules, in the coastal area of Tegalsari Village the majority of the land is used for settlements, port areas, and river/water bodies.

This analysis is used to determine land use in the research area. Land use greatly influences the pattern and development of settlements in an area, as explained by Naing, 2016 regarding the factors that influence the development of settlement patterns, one of which is land use, due to land use. influences the pattern of activities and processes of community activities in a settlement, as well as the spatial pattern of an area.





Source: Primary Survey, 2021

**Figure 8.** Land use Sub-district Tegalsari Coastal area

### 3.2.3. Socio-Cultural Conditions in the Tegalsari Village Coastal Area

The important thing in discussing the characteristics of coastal communities is to understand the concept of the community itself. Society is a group of people who are related independently, have lived together for a long time, inhabit a certain area, have the same culture and carry out most of their activities in certain groups (Horton in Satria Arif, 2002).

The Coastal Community mainly works as a fisherman, this is inseparable from development in the coastal area. As an archipelagic country, Indonesia has a very wide coastal area. Nearly 60% of cities in Indonesia are located in coastal areas (Dahuri, 2002). This also makes most Indonesian people live and live in coastal areas.

In this analysis it is used to determine the social conditions of the people in the research location, namely with respect to the population, social conditions of the Tegalsari coastal community, and community activities or activities. Social conditions affect the characteristics of a settlement, this is explained by Ilhami, 1990 concerning the main driving factors settlement development which are population growth, social conditions, and community activities. In

addition, it is also explained by Jayadinata, 2003 which describes three factors that influence the characteristics of a settlement, one of which is the social culture of the community.

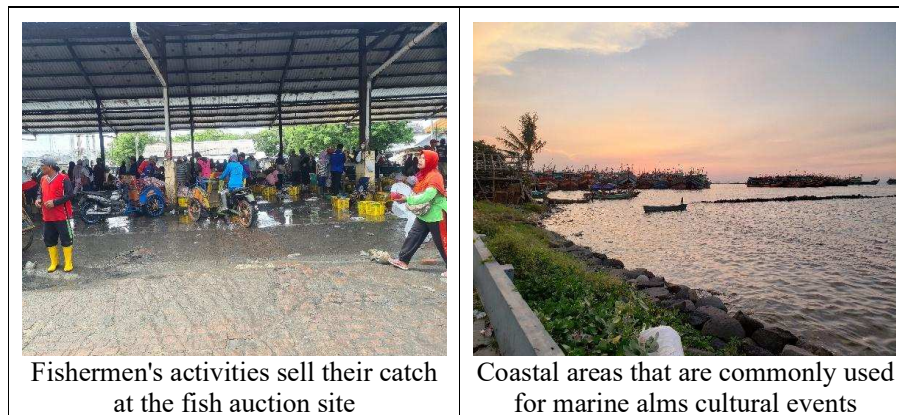
Based on the Tegalsari Village Monograph in November 2020, the Tegalsari Village has 14 RWs and 107 RTs, with a population of 22,457 people, with a population density of 10,254 people/Km<sup>2</sup>, consisting of 6829 heads of families, consisting of 5,639 (82.5%) men and 1,190 (17.5%) women. In the coastal area itself, to be precise in RW I, II, IX, and X each is divided into 10 RTs and has a total of 700, 600, 640, and 575 households. This is inversely proportional to the number of existing houses, namely 500, 430, 450 and 450 respectively. Therefore, there are several houses that are inhabited by 2 or 3 households, and these houses are usually partitioned inside. residents in the coastal area of the Tegalsari Village are also very close together and are usually located in narrow alleys, from this description it can be concluded that the population density in the Tegalsari Village is high, this has resulted in the need for residential land increasing, but the amount of land is very limited.



*Sourcer: Primary Survey, 2021*

**Figure 9.** *Settlement Problems in the Coastal Sub-District of Tegalsari*

The social life of the Tegalsari people cannot be separated from the influence of the coastal/water areas, the majority of the Tegalsari people work as fishermen, and the activities of the fishermen after going to sea usually bring their catch to fish auction site (TPI) for auction, the organization is under the auspices of the Indonesian Fishermen Association (HNSI), the activities that are often carried out by the organization are social activities such as raising funds for the maintenance of mosques, and cultural activities such as the sea alms event which is held once a year, the event is usually carried out in the Tegalsari port area or what is commonly called Jonggor, to be precise near TPI Tegalsari.



*Sourcer: Primary Survei, 2021*

**Figure 10.** *Community Activities in the Tegalsari Port Area*

#### **3.2.4.** Economic Conditions in the Tegalsari Village Coastal Area

Economic, cultural, institutional, customs, and political influences determine the pattern and structure of the physical environment. These factors will also influence the development and changes in the structure of a place (City, Environment and Architecture). Of course this will affect the formation of the image of a city or district (Jayadinata, 2003)

This analysis is used to determine the economic condition of the research area, namely regarding the community's economy and economic location in the coastal area of Tegalsari Village. The economic condition of an area influences the characteristics and development of a settlement, as explained by Ilhami, 1990 regarding the main driving factors for settlement development, namely socio-economic community, then explained again by Jayadinata, 2003 regarding the formation of patterns and structures of the physical environment that are influenced by the economic factors of an area

Fishing communities have an important role for the development of settlements in coastal areas which have the main function as settlements. The economic aspect concerns the economic activities of people living in coastal areas, especially people whose homes are close

to their work locations. For people whose work locations are close to where they live, they usually survive because they reduce their daily expenses.

In the Tegalsari Port area there are 2 ports, namely Tegalsari Port and Tegal City, each of which has a TPI, besides that there is a marine product processing industry PT Haejin Seafood and an independent processing industry carried out by the surrounding community such as smoking fish and salting fish. there is the Maritime Affairs and Fisheries Service of the City of Tegal as a government agency overseeing activities there.



Source: Primary Survey, 2021

**Figure 11.** *Economic Activities in the Tegalsari Village Coastal Area*

The Tegalsari coastal community usually sells their catch after going to sea by auctioning it at TPI Tegalsari (Jongor) or TPI Tegal City, this has been arranged by the manager of the port area to bring together sellers (Fishermen) and buyers, fishermen catch are usually bought by the community for sale returned or pre-processed to increase the selling value, or the marine product processing industry in the Tegalsari Port area The results of marine processing by the community are usually in the form of friction, smoking, or fillets.

This processing is usually done by the fishermen's wives in the Tegalsari Village, this is done to increase income and the family's economy, smoking fish is usually done by mothers in the morning, and sold to markets in Tegal City during the day. The marine product processing industry in the Tegal Port Area usually buys raw materials directly from fishermen through auctions at TPI, if the required raw materials are lacking, then they import raw materials from outside the city, such as from Juwana Port in Pati and Rembang Port, processed marine products are usually in the form of fish fillets, and marketed outside the city such as Bandung, as well as outside the island.

#### **4. CONCLUSION**

The shape of the settlement pattern in the coastal area of Tegalsari Village, West Tegal District, Tegal City, to be precise in RW I and II is linear along the Sibelis River, and parallel to two sides on Jalan Blanak, settlements in this area have a high density, as can be seen from the results of the analysis figure ground, while the pattern of settlements in the settlement area of RW IX is linear and parallel, the settlement is in the north of Jalan Pantura, and parallel to Jalan Layang Barat to Jalan Layang, there are also settlements which are located very close to the port, to be precise south of Jalan Jongor, From the results of figure ground analysis, it can be seen that settlements in the RW IX area tend to surround or be close to public service facilities, namely the Tegalsari Port (Jongor) area, because the area is the economic center and fish processing industries in the Tegalsari Village Coast while the settlements in RW X are divided into 2 areas, namely north of Jalan Pantura and south of Jalan Pantura, for settlements in coastal areas in RW X it can be seen that the pattern of settlements in RW X has the same characteristics as the pattern of settlements in RW IX, namely linear and parallel, these settlements are located on Jalan Layang , Jalan Bandeng, Jalan Ternate, and Jalan Re Martadinata, from the figure ground analysis it can be seen that settlements in RW X also tend to surround public service facilities, namely the Tegal City Port area.

Physical environment, the coastal settlement area of Tegalsari Village which is located directly adjacent to the waters makes the typography in the area flat with a slope of 0-8% with a low elevation above sea level. This causes the coastal area of Tegalsari Village to be prone to inundation, tidal flooding. However, with the help of area planning, the condition of the Tegalsari village coastal area is getting better. Land Use, the amount of land in the Tegalsari coastal area is very limited, therefore the beneficiaries must comply with the rules, in the Tegalsari Village coastal area the majority of land is used for settlements, port areas, and river/water bodies. Social Analysis, the coastal area of Tegalsari Village has a high population

density, the number of households and the number of houses are also not comparable, this has resulted in several houses being inhabited by 2 or 3 households, and these houses are usually partitioned inside, The social life of the Tegalsari people cannot be separated from the influence of the coastal/water areas, the majority of the Tegalsari people work as fishermen. There is a fishing organization in Tegalsari Village, namely the Tegal City Fishermen Association (KNKT).

Economic Analysis, The geographical conditions of the Tegalsari Village which is on the north coast of Tegal City make this area famous for its fisheries sector which consists of fishery production and processing, the typology of the community is as a fishing community. Most of the residents of Tegalsari Village have livelihoods as fishermen, fish processors, and industrial workers.

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