

Industrialization in the Paciran District, Lamongan Regency, Indonesia

Ahmad Fadhil Nazal, Nawiyanto, *Nurhadi Sasmita, Retno Winarni

History Study Program, Faculty of Humanities, University of Jember, Indonesia

*Corresponding author

DOI: <https://dx.doi.org/10.47772/IJRISS.2024.805124>

Received: 19 May 2024; Revised: 29 May 2024; Accepted: 01 June 2024; Published: 18 June 2024

ABSTRACT

As East Java's economic landscape evolves, understanding the drivers and consequences of industrialization in specific regions becomes crucial. This article delves into the industrialization process in Paciran District, Lamongan Regency, East Java, Indonesia. It aims to elucidate the motivations behind the establishment of industrial estates, detail their developmental trajectory, and assess their socio-economic and environmental repercussions. Utilizing a historical method and drawing on both primary and secondary sources, the study reveals that the Lamongan government's policy to industrialize Paciran District aimed to bolster the regional economy and create employment opportunities beyond the agricultural sector. Paciran District was chosen due to its abundant natural and human resources, which supported the development of industries such as manufacturing, fish processing, and offshore facilities. Industrialization in Paciran District has significantly influenced socio-economic conditions of the area by generating jobs, particularly in trade and industry. However, it has also led to cultural shifts, weakening social cohesion, and increasing the prevalence of Koplo pill usage. Environmentally, industrialization has resulted in deteriorating air quality, damage to coastal ecosystems, and water pollution.

Keywords: industrialization, Paciran district, socio-economy, environmental impact

INTRODUCTION

Regional development is an essential effort in order to encourage equitable development. The resulting output is expected to improve people's welfare and encourage the development of regional potential so that it is utilized optimally so that the community's economy is getting better (Patta Rapanna dan Zulfikar Sukarno, 2017:31). Industrial development is expected to be the driving force behind the process of changing the economy from one that was initially dominated by agriculture to changing into an industry and service-based economy that does not depend much on natural factors. This process is likely to increase the prosperity of a country more quickly when compared to other strategies (Jamaluddin, 2005:203-204).

To encourage the stretching of the industrial sector and realize equitable development, the Provincial Government of East Java stipulated Regional Regulation of East Java Province Level 1 number 4 of 1996 concerning Spatial Planning for Level 1 Province of East Java 1997/1998-2011/2012. The regional regulation describes the Gerbangkertosusila area (GKS), which is an economic development effort for the East Java region, which includes the following six regions: Gresik, Bangkalan, Mojokerto, Surabaya, Sidoarjo, and Lamongan. Of the six regions covered in the Gerbangkertosusila Region, four regions, including Gresik, Surabaya, Mojokerto, and Sidoarjo, have concentrated their economic activities on the industrial sector. In comparison, the other two regions (Bangkalan and Lamongan) have dominated their

economic activities on the agricultural sector. Lamongan Regency has regional functions as agro-industrial agriculture and processing industry (Perda No. 4 Tahun 1996).

Industrial development in East Java, which was relatively concentrated in the Gresik, Surabaya, and Sidoarjo regions, began to be felt by industrial development and other activities. Therefore, industrial development is directed to the western part of East Java, especially on the North Coast (Pantura) of East Java, including Gresik, Lamongan, and Tuban (Pemerintah Kabupaten Lamongan, 2008: I-1).

Lamongan Regency is located on the north coast of East Java and is included in the economic corridor development area at the center of the metropolitan city of Surabaya. In 2000, economic growth in Lamongan Regency was 2.12%, with a Gross Regional Domestic Product (GRDP) value of 2,571,825,791,000; the main contributions are from the agricultural and fisheries sectors and the trade sector. When viewed from the economic structure, it shows that the development of industrial activities in Lamongan Regency is relatively behind compared to surrounding areas such as Surabaya, Gresik, Pasuruan, and Mojokerto, which are already dense with industrial activities, even though the industrial sector is the primary sector or the main support for sector development other (Andi Kukuh Pradoto, 2003: III-41).

In order to develop its industrial sector, the Government of Lamongan Regency in 2002 cooperated with PT. Surabaya Industrial Estate Rungkut (SIER) will compile a feasibility study for developing an integrated industrial area regarding infrastructure, supporting facilities, and infrastructure. It aims to improve the economy and people's income. This industrial area was initially called the Industrial Area (IA) in Lamongan. The first stage of the IA development process begins with the selection of a location, namely in the northern region of Lamongan Regency, namely Paciran District (Pemerintah Kabupaten Lamongan, 2008: I-1). Paciran District, as an industrially designated area, gets its formal basis from the Lamongan Regency Long Term Regional Development Plan 2005-2025 (RPJPD 2005-2025).

This research will examine the following questions: (1) Why was Paciran District designated an industrial area? (2) What is the process of industrialization in Paciran District? (3) What are the impacts caused by the existence of an industrial area in Paciran District? The purpose of this study is to examine the conditional factors underlying the development of industrial estates in Paciran District, describe the emergence and development of the Paciran industrial area in Lamongan District, and explain the various impacts caused by the presence of industrial estates in Paciran District.

The spatial scope of this study is Paciran District, Lamongan Regency, supported by a letter from the Governor of East Java Number 539/5448/021/2003 dated July 15, 2003, a letter from the Regent of Lamongan Number 050/585/413.201/2004 dated August 4, 2004, regarding recommendations for bases integrated logistics coast (Lamongan Integrated Shorebase), as well as letter Number 545/6653/021/2004 dated August 24 2004 regarding location determination permit, and deed number 13 dated January 28 2004 from notary Johannes Limardi Soenarjo, SH., MH. The factory is located in Tlogosadang Village, Paciran District.

The researcher determines the temporal scope starting in 2005 based on considerations that this year, the Government of Lamongan Regency issued a policy regarding the Long Term Development Plan of Lamongan Regency 2005-2025, which is an integration of planning and spatial patterns from East Java Province Regional Regulation No. 4 of 1996 concerning the spatial plans of the Province of East Java, 1997/1998 – 2011/2012. The policy stipulates Paciran District as an industrial allotment area located in the northern region of Lamongan Regency with the development of the Lamongan Integrated Shorebase industrial area, the shipyard industrial area, and the fish processing industry. The researcher limited the research to 2017 with the consideration that in that year, the Lamongan Regency Government continued to carry out regional economic development planning programs, so the local government issued Regional Regulation Number 14 of 2017 concerning Amendments to Regional Regulation Number 3 of 2016

concerning the Lamongan Regency Regional Medium Term Development Plan 2016-2021.

MATERIALS AND METHOD

This research is a historical research that uses historical methods. According to Louis Gottschalk (1993: 18), historical methods include heuristics, criticism, interpretation, and writing stages. The primary sources used by researchers were obtained from the Lamongan Regency Archives Service, the Lamongan Regency Central Bureau of Statistics, the Lamongan Regency Regional Library, and the Lamongan Regency Regional Development Planning Agency. In order to complete the required data, the author also uses oral sources by conducting interviews with Nur Hadi, the Secretary of Kemantren Village, Anas a Kemantren Village figure; Zainal Arifin, a Kemantren Village community; Muhammad Wahid, a Weru Village community; Sudarmaji as Sidokelar Village apparatus, and Khoirul Aziz as the community of Kandangsemangkon Village. This study also used secondary sources obtained by conducting literature studies at the Central Library of the University of Jember, the Regional Library of Lamongan Regency, and the Library of History at the University of Jember.

REASONS FOR AN INDUSTRIAL AREA

a. Industrial Policy

Industrialization in Indonesia aims to increase income, encourage changes in society, and increase wealth distribution in industrial growth areas. This is done by stipulating Government Regulation No. 47 of 1997 concerning National Spatial Plans; the government establishes policies and strategies for national spatial planning. (PP No. 47 tahun 1997).

One of the formal development foundations in East Java is the Regional Regulation of East Java Province No. 4 of 1996 concerning Spatial Plans for the Province of East Java 1997/1998 – 2011/2012. Based on the Provincial Spatial Plan, the Gerbangkertosusila Development Area Unit has been formed, which is divided into six sub-regions, namely: (a) Greater Surabaya Sub-region; (b) Greater Surabaya's sub-region of influence in Gresik; (c) Greater Surabaya sub-region in Bangkalan; (d) Sub-influence of Greater Surabaya in Mojokerto; (e) Sub-area of influence of Greater Surabaya in Sidoarjo; and (f) Greater Surabaya Sub- region of Influence in Lamongan. (Perda No, 4 tahun 1996). Based on this regulation, Lamongan Regency is designated as an industrial area and an industrial designated area outside the industrial area. In addition, Lamongan is also designated as a Provincial Strategic Area, with the leading economic area of Lamongan Integrated Shorebase (LIS) and the surrounding area in Paciran District. (Perda Jatim No. 4 tahun 1996).

In order to integrate national and provincial policies, the Government of Lamongan Regency establishes a policy on the Lamongan Regency Long Term Regional Development Plan for 2005-2025. The industrial policy in the Lamongan Regency Long Term Regional Development Plan discusses industrial allotment areas in the Lamongan Regency, which are developed in the form of industrial areas, industrial locations that have developed, and home industries. The industrial estates being developed are located in two locations, namely in the North and South. Locations to the north are in Paciran and Brondong Districts, while those to the south are in Ngimbang and Sambeng Districts. The development of industrial designated areas in the northern region of Lamongan Regency includes the LIS industrial area in Paciran District, Shipyard industrial area in Paciran and Brondong Districts, Fish processing industry development in Paciran and Brondong Districts, Development of home industries in Sendangagung-Sendangduwur-Tlogosadang Village Paciran District. (RPJPD Kabupaten Lamongan, 2005-2025).

In 2011, the government of Lamongan Regency stipulated a regional regulation concerning the 2011-2020 Lamongan Regency Regional Spatial Plan. Based on this policy, Paciran District was designated as a

Regency Strategic Area and a large industrial center, consisting of the 2,000-hectare Sidokelar Industrial Area and the 1,200-hectare Kandangsemangkon Industrial Area. The industrial area in Paciran District is directed at the development of the manufacturing industry, fish processing, and offshore supporting facilities (Perda No. 15 Tahun 2011).

b. Natural Resource Potential

Paciran District has an area of 61,300 km² or 3.61% of the total area of Lamongan Regency. Solokuro District borders the area to the south, Brondong District to the west, Panceng District, which is part of Gresik Regency, to the east, and the Java Sea to the north (BPS Kabupaten Lamongan, 2016, 1). Administratively, Paciran District consists of 1 sub-district and 16 villages. Its administrative area includes Blimbing Village, Kandangsemangkon Village, Paciran, Sumurgayam, Sendangagung, Sendangduwur, Tunggul, Kranji, Drajad, Banjarwati, Kemantren, Sidokelar, Tlogosadang, Paloh, Weru, Sidokumpul and Warulor (BPS Kabupaten Lamongan, 2003: 32).

Based on geographical conditions, Paciran District is directly adjacent to the Java Sea in the north (BPS Kabupaten Lamongan, 2016: 1). This is a distinct advantage for Paciran District because it has potential natural resources in the form of capture fisheries. The following table presents a list of products captured by fisheries in Lamongan Regency.

Table 1 Fish Catch Results in Lamongan Regency, 1999-2003.

YEAR	PRODUCTION (TONS)	VALUE (RP)
1999	34.323	49.167
2000	36.576	71.335
2001	37.715	81.582
2002	33.197	73.577
2003	39.854	83.619

Source: Central Bureau of Statistics, East Java in Figures 1999-2003.

The table shows that the capture fisheries products in Lamongan Regency from 1999 to 2003 experienced a production growth, even though in 2002 it experienced a decline. This shows that Lamongan Regency, especially Paciran District, has abundant capture fisheries production. In addition to the potential for capture fisheries, the coastal area of Paciran District has a coastline length of 14.6 km and a sea depth of 10-15 meters, which has not been fully utilized (Ahmad Erani Yustika, 2021: 110).

In the mainland, Paciran District has potential natural resources in the form of mineral and non-metallic minerals. These minerals include limestone, dolomite, pedel piled up, and phosphate (RPJPD, 2005: II-12). In order to increase the added value of natural resource potential in Paciran District, the Government of Lamongan Regency has designated Paciran District as an industrial designated area, to increase local potential development and provide benefits to the Paciran community (RPJPD, 2005: III-4).

Apart from having natural resource potential, the selection of Paciran Subdistrict as the location for an industrial allotment area was also based on several considerations, namely by Lamongan Regency Government policy, not an area with potential for natural disasters, not a waterlogging area, has bedrock lithology, has rainfall and low wind speed, and not a wildlife sanctuary area. In addition, Paciran District has a strategic location for industry because it is close to the city of Surabaya and has adequate infrastructure, as

supported by access to the Daendels highway, which connects Gresik Regency to Surabaya in the east and also to the west, which connects to Central Java Province to Jakarta thus facilitating the flow of distribution of goods and services from Lamongan to other areas outside East Java (Theresiana Ani Larasati, 2011:19).

Based on geology, Paciran District is not an area with the potential for natural disasters, including landslides, earthquakes, volcanic hazards, and faults. Based on the Long Term Regional Development Plan for Lamongan Regency 2005-2025 the location of Paciran District was outside the fault zone. The location of Paciran District is far from an active volcano because there is no volcano in Lamongan Regency (RPJPD Kabupaten Lamongan, 2005: II-16).

Based on topography, the Paciran sub-district has three forms of territory: plains, slopes, and hills. Most sub-district areas comprise 66% plains, 19% slopes, and 15% hills. Judging from the slope of the land, Paciran District has slopes varying between 2-15% to 40°, which is around 4,314 Ha with a slope of 2-15°, 425 Ha with a slope of 15-40°, and 50 Ha with a slope of above 40° (Badan Pusat Statistik: 2003, 19). Paciran District is an area that is mainly dominated by slopes of 2 – 15° with an area of 4,314 hectares. This is by the provisions because it is not in a hilly area with a slope of more than 20 degrees (Permenperin No: 35/M-IND/PER/3/2010).

Land use in Paciran District consists of 321 Ha of paddy fields (rainfed), 512 Ha of residential areas, 770 Ha of fields or farmland, 4,329 Ha of dry fields or gardens, 54 Ha of ponds, and 770 Ha of forest land (Bps Kabupaten Lamongan, 2003: 231-233). Paciran Sub-District has unproductive soil conditions and structures for the agricultural sector. This is because the Paciran district is an area of the North Kendeng Mountains, which results in the condition and structure of the soil in this subdistrict containing a lot of limestone, making it less suitable for agricultural land (Soeryo Adiwibowo, 2017: 1).

Paciran District also has a suitable soil type to support industrial existence. The location plan for the industrial allotment area in Paciran District is a red Mediterranean soil type with medium soil capacity. This location is suitable because the type of soil used has a medium capacity, so it is suitable for supporting industrial buildings. The industry requires a solid foundation and construction; this process affects the cost of construction and determines the construction technology used (Permenperin No: 35/M-IND/PER/3/2010).

Paciran District has a tropical climate with an average air temperature of 27-35 degrees Celsius. Rainfall in Paciran District over the past ten years shows that the average annual rainfall has reached 300 mm, ranging between 204 mm (1997) and 296 (2006). Within ten years, the average dry month occurs from May to September. The most vital dry months in the last ten years occurred 12 months per year in 1997 and 2006. Moderate rainfall in the last ten years occurred from November to April. The wet month with the highest rainfall in the last ten years occurred in January 2002, reaching 200 mm (Pemerintah Kabupaten Lamongan, 2008: III-2).

The land acquisition process was carried out in 2002 by the local government in collaboration with the industrial estate developer, namely PT. Jakamitra. Land acquisition carried out by industrial estate developers has prevented the public from meeting directly with investors. The community's ignorance about the industry's development and the absence of deliberations to determine land prices make land brokers play a role in buying and selling land prices. In 2002, the price of land in Paciran District was Rp. 5,000/m². After the people knew that the industry would be built, the people whose land had yet to be sold were offered a high price of Rp. 40,000-60,000/m². Stages of land tenure occurred until 2007 with a land price of Rp. 100,000/m². The land acquisition stage took a long time because there was no mutual agreement regarding the purchase price of the land, so the community defended their land in search of a high selling price. Whereas people who have sold their land only respond passively so as not to cause land disputes. The land that already belongs to the government (has been acquired) is 393.71 Ha (Wawancara dengan Zainal Arifin).

c. Human Resource Potential

Population is an essential factor in supporting regional development. The population in Paciran District from 1994 to 2003 has always experienced growth. Based on registration, in 1994, the population reached 71,973 people; in 2003, the number changed to 75,085 people. The population consists of 35,369 men and 39,686 women. The entire population is mainly dominated by the productive age population between 15 to 64 years with a total of 47,775 people, then 22,877 people who are not yet productive, and the rest are people of unproductive age (BPS Kabupaten Lamongan 1993-2003).

The maritime sector dominates the economic condition in Paciran District. This is inseparable from the geographical conditions of Paciran District, which is directly adjacent to the Java Sea. The coastal area of this sub-district has an area of \pm 14.6 km, and most of the population is engaged in the fishing sector. The residents of the Paciran Subdistrict, who make a living as fishermen by relying on fish catches in the sea, make the economic level of the Paciran Subdistrict community relatively low. The people of Paciran Subdistrict who work as sea fishermen have incomes ranging from Rp. 850,000 – Rp. 950,000 every month. While residents of the sub-district who have a livelihood as corn farmers usually have to wait about three months at harvest time to get income, the income varies for each individual depending on the area of land they own and the crops obtained. The people of Paciran District generally have an income of between Rp. 750,000 – Rp. 1,000,000 every month; some have no income because they are housewives. In the middle economic category, Paciran people have an income of more than Rp. 1,500,000, while the maximum income for people in Paciran is Rp. 2,500,000 (Pemerintah Kabupaten Lamongan, 2008: III-34).

In 2003, the education level of the Paciran sub-district population was still low. The most recent graduates were elementary school graduates, with 29,380 people, while the last education level was junior high school graduates/equivalent in second place, with 10,829 people. Those who graduated from high school/equivalent were 7,816 people. There are also 2,848 illiterate residents (Monografi Kecamatan Paciran, 2003). The low economy is still the biggest obstacle to getting higher education. When a child wants to continue to a higher level of education but is constrained by the problem of education costs, that desire disappears.

In 2003, the industrial sector activities in Paciran were minimal, especially for large industries with only 1. The big industry is PT. Omya Indonesia Plant Paciran located in Kandangsemangkon Village. The industries that dominate in Paciran District are small industries and home industries, with a total of 803. One of the superior products is batik craft, which is located in Sendangduwur Village. Meanwhile, small industries have a total number of 23; small industries are dominated mainly by class C mineral mining industries, with as many as 21 industries. The election of Paciran District as the location for an industrial designation area (RPJPD Kabupaten Lamongan 2005-2025), with the hope of providing employment opportunities for the Paciran people to reduce poverty. When the economic level of society increases, it is hoped that the growth of education will also increase.

THE DEVELOPMENT OF THE PACIRAN INDUSTRIAL AREA

a. Manufacturing Industry

The development of the industrial sector in the Paciran Subdistrict cannot be separated from the development plans carried out during the Masfuk Regent Government Period (Surya, December 7, 2009). In order to encourage the expansion of the industrial sector, factory capacity should be increased from processing raw materials to raw materials. The Lamongan Regency Government establishes policies to improve the regional economy. The policy is land investment and ease of licensing. The licensing system, which was initially two weeks, was reformed into one day with the presence of the Lamongan Regency licensing office. In addition, land acquisition is one of the facilities offered by the Lamongan Regency

Government to investors (Bisnis Indonesia, 1 Mei 2003).

Paciran District is designated as a manufacturing industry to manage natural resources in the form of dolomite minerals covering an area of 5,451.1 hectares (Tim Penyusun, 2012: 15). The manufacturing industry that had been established in Paciran District before 2005 was PT Omya Indonesia Plant Paciran which was located in Kandangsemangkon Village with an area of 50 hectares. PT Omya Indonesia is engaged in the calcium carbonate business, and its primary raw material is limestone.

The abundant potential of limestone natural resources has caused the dolomite quarrying and grinding industry to develop in the Paciran District. In 2006, it was recorded that nine medium industries were operating in the C mining and dolomite milling sector in Paciran District, namely UD. Natural Resources, UD. Tunas Jaya, Hery, Agus Mulya, H. Moh. Thohir, Hj. Ukhdaini, Askin, and Marjiun (Badan Pusat Statistik Indonesia, 2006: 378).

In 2008, PT Omya Indonesia opened a subsidiary located in Sidokelar Village, Paciran District, with the company name PT Omya Indonesia Plant Sentul and has an area of 74.5 hectares (DPMPTSP Kabupaten Lamongan, 2017). Sidokelar Village was chosen as the location for the establishment of a subsidiary of PT. Omya Indonesia because it has the potential for mineral materials covering an area of 2,399.00 hectares, with a volume of raw material production of 2,375,010,000.00 tons (Tim Penyusun, 2012: 15).

In 2011, the manufacturing industry in Paciran District increased with the presence of CV. Manunggal Sari, CV. Iki Sumber, CV. Pentayana Painto, PT. Formitra Multi Perkasa, and PT. Jayabrix Indonesia (Badan Pusat Statistik Kabupaten Lamongan, 2018: 145). PT. Jayabrix Indonesia is a company founded in 2011 and located in Kemantren Village, Paciran District, which has an area of 1.5 hectares. This factory has the vision to become a company producing lightweight bricks, cement boards, and other building materials with the best quality, efficiency, and productivity acceptable to world marketing. At the same time, its mission is to improve the quality of work that is transparent, expert, disciplined, professional, and quick to adapt to changes that exist at the national and international levels. PT. Jayabrix Indonesia started operating in 2014; at the beginning of operation, its main product was lightweight brick. Various innovations and developments are continuously carried out in the process, and in the same year, this factory can also produce cement boards. Products from this factory are used for various projects, ranging from housing to skyscrapers, public facilities, and other applications (Profile of PT Jayabrix Indonesia).

In 2017, the total number of quarrying companies in Paciran District was 10, or an increase of 4 companies from 2015, while dolomite milling companies totaled 21 companies (Bps Kabupaten Lamongan, 2018: 152). Manufacturing industries that absorb many workers are PT Omya Indonesia, absorbing 100 workers, and PT Jayabrix Indonesia, absorbing 400 workers (Bps Jawa Timur, 2017: 433).

The factories, namely PT, are still not operational. Bumi Wali Sentosa Agung, this factory is engaged in the dolomite industry and has an area of 15.1 hectares in Kemantren Village. In addition, there is a factory that is still under construction, namely PT. Trans-Pacific Palms. PT. Trans-Pacific Palm is a factory that processes palm oil and biodiesel. This factory is located in Sidokelar Village, Paciran District, with a land area of 50 hectares. PT. Sunan Drajad Lamongan is a factory that utilizes hazardous and toxic materials waste. This factory is located in Banjarwati Village, which has an area of 0.8 hectares (DPMPTSP Kabupaten Lamongan, 2018).

b. Fish Processing Industry

Paciran District also focuses on the fish processing industry. It aims to manage the potential of capture fisheries. Lamongan Regency has captured fishery potential of up to 39,925.2 tons with a production value of up to Rp. 98,513 million. Marine fisheries production in 2004 was the second largest of all districts in

East Java after Sumenep (Bps Jatim, 2005: 237). In Paciran District, there are three Fish Landing Sites (FLS): FLS Weru, Kranji, and Blimbing/Brondong. The existence of three FLS in Paciran is the primary support for the sustainability of the fish processing industry, which functions as a supplier of production raw materials for factories (Bps Kabupaten Lamongan, 2003: 320).

Proximity to the production of raw materials is a distinct advantage for fish processing companies, thus attracting investors to invest their capital, such as PT. Hasil Alam Tani Nelayan Indonesia (Hatni). This industry, which focuses on the production of canned fish, is a company that was established based on deed number 13 dated January 28, 2004, of notary Johanes Limardi Soenarjo, SH., MH. The factory is located in Tlogosadang Village, Paciran District, and has an area of 3.6 hectares. Its main production is frozen fish made from raw materials from Kuniran and Swanggi fish. Overall production results are exported abroad with the aim of China and Taiwan (Pupung Priono, 2020: 2).

In 2008, there were three fish processing factories: PT Hatni, PT Enam Delapan Sembilan, and PT Starfoot Internasional. PT. Starfood Internasional is a business group of PT. Prima Star International (Kelola Mina Laut Group) is in Gresik Regency. The construction of this factory is based on deed no. 28 dated April 18, 2008, from notary Wachid Hasyim S.H. in Surabaya with letter of approval No.AHU-25263.AH.01.01. PT. Starfood Internasional started in October 2008 and is located in Kandangsemangkon Village with an area of 0.85 hectares. PT. Starfood Internasional started operating on October 1, 2009, while the production process began on October 26, 2009. The factory's first product was surimi; in the next stages, it developed to produce frozen fish. The fish used as production material are taken from FLS Brondong/Blimbing. The types of fish used to make frozen fish consist of gulama, toning, chicken-chicken fish, swagger, putting damar, and squid. In 2013, the factory's products increased by producing fish meal; the raw material for this product was taken from surimi solid waste and frozen fish in the form of fish heads, skins, and bones. Their products are marketed for export to countries such as Taiwan, China, Singapore, and Vietnam (Bayu Sentosa, 2019: 81).

c. Offshore Supporting Facilities Industry

The first offshore supporting industry in the Paciran District was PT. Lamongan Integrated Shorebase (LIS). PT LIS is one of the factories that pioneered the establishment of the industry in the Paciran District. This factory was established based on deed No. 170 dated August 20, 2004, and is located in Tanjung Pakis, Kemantren Village. The choice of location for Tanjung Pakis as the location for the establishment of PT. LIS is based on a letter from the Governor of East Java Number 539/5448/021/2003 dated July 15, 2003, and a letter from the Regent of Lamongan Number 050/585/413.201/2004 dated August 4, 2004 regarding recommendations for an integrated logistics shore base (Lamongan Integrated Shorebase), as well as letter No. 545/6653/021/2004 dated August 24 2004 regarding permits for location determination (Permenhub No. 61 tahun 2006 1).

Tanjung Pakis, Kemantren Village became a strategic place for the establishment of PT LIS in Surabaya. This is closely related to the increasingly massive industrialization that is occurring in the city of Surabaya because it is already too densely populated and the availability of vacant land is small, so industrial investors are moving towards the north coast of East Java towards Lamongan and Tuban (Bhirawa, January 4, 2005)—development of PT. LIS aims to be a supply center for logistics needs that serves warehouse areas and port areas for oil and gas companies operating in Eastern Indonesia (EI) (Permenhub No. 61 Tahun 2006).

PT. LIS is a regionally owned enterprise (ROE) that collaborates with a Singapore-based company, PT Eastern Logistics, as foreign and domestic investments to carry out activities required by service users in this area. The land area used for the construction of the factory reached 104 hectares, and the water area was 1,196.14286 hectares, which consisted of the wharf pool area, rotary pool area, inlet pond area, anchorage

area, and mine-free area (Permenhub No. 61 tahun 2006: 11).

The port construction and development process was carried out in two stages; the first stage was built from 2006 to 2011. At this stage, the focus of the development includes the development of office and housing zone facilities, upper warehouse, lower warehouse, and wharf zone. The office zone area reaches 10 hectares, including training centers, buildings, commercial areas, and housing complexes. The land area of the warehouse area reaches 69 hectares, consisting of upper warehouses with an area of up to 54 hectares and lower warehouses with an area of up to 15 hectares (Permenhub No. 61 of 2006: 10).

The second phase is long-term development, starting from 2011 to 2026. The development and construction of PT LIS's port facilities are carried out by expanding the warehouse area. The area was expanded using reclamation with an area of 25 hectares, consisting of 20 hectares for the warehouse area and 5 hectares for the wharf area (Permenhub No. 61 Tahun 2006).

In 2013, work on building facilities was carried out again, constructing a particular cargo pier to keep pace with industrial development in northern East Java. The construction of new wharf facilities aims to reduce the excess load on the old wharf so that cargo ships and ships supporting offshore activities can be served equally. Every year, 1,500 vessels supporting offshore activities rely on ports (Miftahul Khoir, 2022).

Apart from developing the maritime and fish processing industries, tourism is also well represented. The development of Tanjung Kodok and Goa Maharani tourism has also not been spared from government policy. The local government, in developing the tourism industry, cooperated with PT. Bunga Wangsa Sejati through cooperation agreement number 181.1/07/413.012/2004. Based on the agreement on January 19, 2004, Wisata Bahari Lamongan (WBL) construction began with PT mapping and fencing the location. True Wangan Earth. WBL is located in Paciran Village and is built on land with an area of 17 ha. The developer (PT. Bunga Wangsa Sejati) involved the surrounding community as construction workers in the development process. The construction process was 100% completed in August 2007 (Afif Yoga Yulianto, 2018: 5). After the construction of the WBL was completed, in August 2007 the development of the new Maharani Zoo and Goa (Mazoola) tour was implemented. Mazoola is an educational tour for children that applies the concept of education and entertainment, filled with 300 kinds of animals and a stone museum. The development of the Mazoola tour was completed and inaugurated on May 28, 2008, by the Regent of Masfuk. The development of WBL and Mazoola aims to increase local revenue and impact society (Afif Yoga Yulianto, 2018: 6).

After the establishment of PT LIS, the development of the offshore supporting facilities industry in Paciran increased; in 2008, PT Dok Pantai Lamongan (DPL) was established. PT. DPL is a subsidiary of PT that repairs and constructs ships. Greetings Pacific Indonesia Lines (SPIL). This factory was established on March 20, 2008, and is located in the villages of Kemantren and Sidokelar, which stand on a land area of 20 hectares (Industri Going Globally, No.1 Tahun II 2008).

In 2009, the East Java Provincial Government designated the northern area of Lamongan Regency a Special Economic Zone (SEZ) for the maritime industry. This area is designated as a Maritime Industrial Zone (MIZ) because it has a sea depth that can be used to anchor large tonnage ships, and its location is adequate. This maritime industry focuses on the shipping industry and offshore facilities, such as repairs, supply of raw materials, production technology, and marketing for domestic and foreign markets. The determination of SEZ aims to encourage economic growth, equitable development, and increase competitiveness (Ahmad Erani Yustika, 2021: 110).

In 2011, the maritime industry grew with the establishment of PT. Linteck Duta Pratama in Kandangsemangkon Village and PT. Lamongan Marine Industry (LMI). PT. LMI is a company engaged in new shipbuilding and ship repair. This factory is located in Sidokelar Village, which has a land area of 35

hectares. PT LMI is a private factory under PT's auspices. Main Radar Power. The existence of shipbuilding in this factory indicates that the maritime industry is important and promising (Dermaga, 180-Agustus 2014: 23).

In 2012, the Lamongan Regency Government designated the Paciran District as a Regency Strategic Area (KSK) and a major industrial center. The area of land designated as an industrial allotment area reaches 3,200 hectares, consisting of the Sidokelar Industrial Area of 2,000 hectares and the Kandangsemangkon Industrial Area of 1,200 hectares (BAPPEDA of Lamongan Regency, 2012: 18). As a development prioritized by the Regional Government of Lamongan Regency, this is also supported by the Provincial Government of East Java by establishing Regional Regulation number 6 of 2012. Based on the Regional Regulation policy, Paciran District is designated as a maritime industrial zone, fishery product processing industrial zone, and rock mining. (Perda Jatim No. 6 tahun 2012).

In 2013, the company that built the factory in Paciran was PT TRI Ratna Diesel, located in Tunggul Village, Paciran District. The ships produced are fiber boats. In addition to absorbing local workers, PT. Tri Ratna Diesel also collaborated with the Vocational High School Sunan Drajad (<https://finance.Detik.com/berita-ekonomi-bisnis/d-2708999/>).

In 2017, the Government of Lamongan Regency established a policy to develop an industrial area in Paciran District through the Lamongan Regency Medium Term Development Plan 2016-2021. This is done through strengthening the investment climate, facilitating licensing for investors, building land transportation infrastructure, developing industrial estates by establishing cooperation and partnerships, and increasing fish production by utilizing environmentally friendly fishing technologies (Perda No. 14 Tahun 2016).

The development of industrialization in the Paciran District exceeds that of other sub-districts in the Lamongan Regency, making Paciran an industrial center in the northern Lamongan region. In total 2017, there were 56 industries, with details of 34 large and 22 medium industries. The rapid industrial development in Paciran District is due to the increasing demand for industrial estate land in line with the industrial downstream program and improving the performance of the Indonesian economy. Various natural product industries tend to go to the northern coast of East Java. In addition, the price of land is still so that various natural product industries tend to be on the northern coast of East Java. In addition, the cheap land price reaches Rp. 400,000/m², and the Lamongan District Minimum Wage of Rp.1,702,780 puts Lamongan, especially Paciran, in great demand by investors to invest their capital (Pemerintah Kabupaten Lamongan, 2008: 19).

THE IMPACT OF THE INDUSTRIAL ESTATE

Industrial development in Paciran District has had an impact on population growth. This is due to high economic development and increased development in this sub-district's industrial, service, and trade sectors. The rapid migration of residents to Paciran District is also supported by the geographical conditions of the area and transportation facilities, which are proliferating along the Pantura highway, making it easier to mobilize to Paciran District. This makes Paciran a destination for local migration from other sub-districts in Lamongan Regency and outside the Lamongan area who are staying or returning home. Based on data from the Central Statistics Agency, the population of the Paciran District in 2005 totaled 89,698 people (Bps Kabupaten Lamongan, 2005: 80), increasing to 100,373 in 2017. The population consists of a female population reaching 50,382 people and a male population reaching 49,991 people. Of the total population based on citizenship status as a whole consisting of residents with Indonesian citizenship, there are no residents with foreign citizenship. Paciran residents in 2017 had several households reaching 30,282 families with an average number of family members reaching 4-5 people. This district's population density and total population are the highest among other sub-districts in Lamongan Regency, reaching 1,637

people/km² (Bps Kabupaten Lamongan, 2018: 40).

In the socio-economic field, industrialization in the Paciran District has impacted employment in the industrial sector, although it has not transformed the types of people's jobs. The agricultural sector is still the main livelihood. The number of workers in the industrial sector in 2005 reached 830 and increased in 2017 to 1,527 (Bps Kabupaten Lamongan, 2018: 55). After the presence of industry, the trade sector in Paciran was able to absorb labor better than the industrial sector. The number of workers in the trade sector in 2003 reached 334 people, experiencing an increase in the number in 2017 with a total of 5,631 people or an increase of 5,297. The total amount is more tremendous than the absorption of labor in the industrial sector. The trading sector in Paciran was dominated by 2,846 small traders, 2,618 medium traders, and 167 large traders. When viewed from the number of stores in 2011, there were 420; there was a significant increase in the number in 2017, namely 1,967 or an increase of 1,277 stores. Likewise with the number of stalls, in the same year, the number also grew from 257 to 428 (Bps Kabupaten Lamongan, 2018: 154).

The presence of the industry has not brought prosperity to the community, especially the villages where the industry was founded (Kemantren, Sidokelar, Kandangsemangkon, Tlogosadang) because companies do not carry out their social responsibilities. This caused different reactions in each village. In Kemantren Village, the community responded by holding an audience with the factory, but they got only promises (Interview with Fatih, Lamongan, December 8, 2021). In Sidokelar Village, the community did not react because they believed there would be a law of karma for the factory itself (Interview with Sudarmaji, Lamongan, October 13, 2021). A different thing happened to the people of Kandangsemangkon Village. The community responded by holding a demonstration before PT Lintec Duta Pratama (Interview with Khoirul Aziz).

Industrial development also impacts economic growth and investment in Lamongan Regency. Investment in Lamongan Regency increased from 2005 to 2017, reaching Rp. 1,708,194,913,865 with details of Domestic Investment of Rp. 1,554,364,728,500 and Foreign Investment of Rp. 153,830,185,365 (Bps Kabupaten Lamongan, 2018: 420).

Industrial development in Paciran District also impacts changes in community culture. Since the presence of the industry, the people of Paciran District have begun to experience changes in social ties. Before industrialization, the Paciran community had a high Islamic culture with strong religious ties. Changes in people's behavior mainly occur in young people and people who work in companies. This change can be seen from the smaller number of people who make hospitality from house to house on Eid al-Fitr (Interview with Ikhwan). In addition, the social capital (cooperation) of the Paciran community is starting to fade. The social capital the people of Paciran District instilled before industrialization was very thick with social capital (mutual cooperation). When there are activities to clean up village facilities and neighbors and build buildings, the stout community helps one another. However, after industry presence in Paciran District, the values of gotong-royong began to change. This change can be seen in the intensity and number of people participating because people are busy with their respective jobs and become apathetic towards their neighbors (Interview with Nur Hadi). People are increasingly consumptive by showing off their wealth and the widespread use of Koplo pills (Interview with Masud).

Industrial development also hurts the coastal environment. The development of the maritime industry utilizing coastal reclamation also impacts the damage to coral reefs, the area of mangrove cover, and seagrass beds. Coral reefs and mangrove cover areas were damaged up to 94.29%. In addition, damage also occurs to the seagrass ecosystem. In 2016, the seagrass beds in Paciran had an area of up to 4 hectares and suffered up to 50% damage, while the condition of the seagrass beds was 24% in moderate condition and 26% in good condition (DLH Kabupaten Lamongan, 2016: III-30). In 2017, when viewed based on the damage quality standards for seagrass beds, the damage was getting worse, reaching 100% (DLH Provinsi Jatim, 2017: III-46).

In addition, the fishing industry's activities also have an impact on seawater quality. In 2016, based on the results of seawater quality monitoring showed that seawater around industry and tourism in Paciran District had parameters that did not meet the criteria, namely Total Suspended Solid (TSS), Phosphate (PO₄-P), Sulfide (H₂S), Phenol parameters. H₂S levels reached 0.04 mg/l, exceeding the environmental quality standard of 0.01 mg/l. At the same time, the nitrate level showed 0.025 mg/l, exceeding the environmental quality standard that had been set at 0.008 mg/l, while the phosphate level showed 0.072 mg/l, exceeding the environmental quality standard of 0.015 mg/l (DLH Kabupaten Lamongan, 2016: III-56). The Kemantren Village community also felt a negative impact due to the activities of PT Jayabrix Indonesia. The location of the factory close to the settlement causes air pollution, dust, unpleasant odors, and noise from production activities in the factory (Interview with Naufal).

CONCLUSION

The findings indicate that Paciran District was strategically designated as an industrial area to capitalize on its fisheries, coastal resources, and rock mining potential. The district's suitability is further underscored by its low risk of natural disasters, absence of stagnant water areas, stable bedrock lithology, low rainfall, moderate wind speeds, and lack of wildlife sanctuaries. Additionally, the availability of a robust workforce supports industrial activities. Industrialization in Paciran District is focused on the manufacturing industry, fish processing industry, and offshore supporting facilities. Key players in the manufacturing sector include PT. Omya Indonesia Plant Paciran, PT Omya Indonesia Plant Sentul, PT Gemilang Mahajaya, CV Bagus Mulyo, CV Manunggal Sari, CV Iki Sumber, CV Pentayana Painto, PT. Formitra Multi Perkasa, and PT Jayabrix Indonesia, primarily involved in the dolomite industry. The fish processing sector features companies such as PT. Hasil Alam Tani Nelayan Indonesia (Hatni), PT Enam Delapan Sembilan, and PT Starfoot International. The offshore support industry includes PT. LIS, PT. Dok Pantai Lamongan (DPL), PT. Lamongan Marine Industry (LMI), and PT. Linteck Duta Pratama. Industrial development has significantly impacted Paciran Regency, leading to an influx of migrants seeking employment and thereby increasing the local population. The industrial development has expanded job opportunities, but it has also brought about changes in community culture and altered the coastal environment. This reality underscores the urgent necessity for a new strategy to achieve a sustainable balance between industrialization and environmental preservation.

REFERENCES

1. Rapanna, Patta. dan Zulfikar Sukarno, *Ekonomi Pembangunan* (Makassar: CV Sah Media, 2017).
2. Jamaluddin, Adon Nasruallah, *Sosiologi Perkotaan: Memahami Masyarakat Kota dan Problematikanya*. (Bandung: CV Pustaka Setia, 2015).
3. Peraturan Daerah Provinsi Jawa Timur No. 4 tahun 1996 tentang Rencana Tata Ruang Wilayah Provinsi Daerah Tingkat I Jawa Timur Tahun 1997/1998-2011/2012.
4. Pemerintah Kabupaten Lamongan, *Analisis Dampak Lingkungan (Andal) Kawasan Industri Di Lamongan Kabupaten Provinsi Jawa Timur* (Lamongan: Pemerintah Kabupaten Lamongan, 2008).
5. Andi Kukuh Pradoto, *Studi Dalam Rangka Pemindahan Galangan Kapal PT. Dok dan Perkapalan Surabaya*, Tugas Akhir, Jurusan Teknik Perkapalan Fakultas Teknologi Kelautan Institut Teknologi Sepuluh November, 2003.
6. Rencana Pembangunan Jangka Panjang Daerah (RPJPD) Kabupaten Lamongan 2005-2025.
7. Gottschalk, Louis. *Mengerti Sejarah*. terjemahan Nugroho Notosusanto (Jakarta: UI Press, 1993).
8. Peraturan Pemerintah Nomor 47 tahun 1997 tentang Rencana Tata Ruang Wilayah Nasional.
9. Peraturan Daerah Kabupaten Lamongan Nomor 15 tahun 2011 tentang Rencana Tata Ruang Wilayah Kabupaten Lamongan Tahun 2011-2031.

10. Badan Pusat Statistik Kabupaten Lamongan, *Kabupaten Lamongan Dalam Angka 2003* (Lamongan: Badan Pusat Statistik, 2003).
11. Badan Pusat Statistik Kabupaten Lamongan, *Kecamatan Paciran Dalam Angka 2016* (Lamongan: Badan Pusat Statistik, 2016).
12. Yustika, Ahmad Erani. *al, Tapak Pengembangan Industri Nasional*. Bogor: IPB Press, 2021.
13. Larasati, Theresiana Ani, *Kekehan Permainan Gasing Daerah Lamongan* (Jakarta: Direktorat Tradisi, Direktorat Jenderal Nilai Budaya, 2011).
14. Peraturan Menteri Perindustrian Republik Indonesia Nomor : 35/M-IND/PER/3/2010 tentang Pedoman Teknis Kawasan Industri.
15. Adiwibowo, Soeryo, dkk, *Kajian Lingkungan Hidup Strategis: Kebijakan Pemanfaatan dan Pengelolaan Pegunungan kendeng yang Berkenlanjutan* (Jakarta: Kantor Staf Presiden dan Kementerian Lingkungan Hidup dan Kehutanan, 2017),
16. Pemerintah Kecamatan Paciran, Monografi Kecamatan Paciran, 2003.
17. “Bangkitkan Lamongan dengan Jiwa Enterpreneur”, dalam Surya, 7 Desember 2009.
18. “Pemerintah Kabupaten Lamongan Aktif Jemput Investor”, dalam Bisnis Indonesia, 1 Mei 2003.
19. Tim Penyusun, *Energi dan Sumber Daya Mineral Dalam Angka 2012* (Surabaya: Pemerintah Provinsi Jawa Timur, 2012).
20. Badan Pusat Statistik Indonesia, *Direktori Perusahaan Pertambangan Dan Penggalan Hasil Sensus Ekonomi 2006* (Jakarta : Badan Pusat Statistik, 2006).
21. Profil PT JayaBrix Indonesia, [Online], <http://jayabrix.co.id>.
22. Badan Pusat Statistik Kabupaten Lamongan, *Kecamatan Paciran dalam angka 2018*. (Lamongan: Badan Pusat Statistik, 2018).
23. Badan Pusat Statistik Jawa Timur, *Direktori Industri Besar dan Sedang Jawa Timur 2017* (Surabaya: Badan Pusat Statistik, 2017)
24. Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu. 2017.
25. Pupung, *Pengaruh Lingkungan Kerja, Beban Kerja Dan Kepuasan Terhadap Produktivitas Tenaga Kerja Di PT HATNI*, Skripsi, Departemen Teknologi Industri Pertanian Universitas Internasional Semen Indonesia, 2020.
26. Sentosa, Bayu. dkk, Faktor-faktor yang Berpengaruh pada produksi Hasil Laut, *Article Humanis*. 11. No. 1. Januari 2019.
27. Peraturan Menteri Perhubungan Nomor: KM 61 Tahun 2006 tentang Rencana Induk Pelabuhan PT. Lamongan Integrated Shorebase.
28. “Pemprof Bangun Sosbis di Lamongan”, dalam Bhirawa, 4 Januari 2005.
29. Miftahul Khoer, “Lamongan Tambah Dermaga Kargo Rp 1,2 Triliun”. [Online], <http://www.google.com/amp/s/m.bisnis.com/amp/read/>.
30. Afif Yoga Yuliyanto, Perkembangan Pariwisata Di Kabupaten Lamongan : Hitorisitas Dari Wisata Sektor Ke Wisata Terpadu Tahun 2000-2010, *e-Journal Pendidikan Sejarah, Volume 6 No. 4 Tahun 2018*
31. “PT DOK dan Perkapalan Surabaya Ekspansi ke Lamongan”, *Industri Going Globally*, No.1 Tahun II 2008.
32. “Peluang Investasi Galangan Kapal di Lamongan”, Dermaga, edisi 180-Agustus 2014.
33. Peraturan Daerah Provinsi Jawa Timur Nomor 6 Tahun 2012 tentang Pengelolaan Dan Rencana Zonasi Wilayah Pesisir Dan Pulau-Pulau Kecil Tahun 2012-2032.
34. “Galangan Kapal Baru Mulai Dibangun di Lamongan”, <https://Detik.com/berita-ekonomi-bisnis/d-2708999/>.
35. Peraturan Daerah Kabupaten Lamongan No. 14 tahun 2017 tentang Perubahan Atas Peraturan Daerah No. 3 tahun 2016 tentang Rencana Pembangunan Jangka Menengah Daerah Kabupaten Lamongan Tahun 2016-2021.
36. Badan Pusat Statistik Kabupaten Lamongan, *Kabupaten Lamongan Dalam Angka 2005* (Lamongan: Badan Pusat Statistik, 2005).

37. Dinas Lingkungan Hidup Kabupaten Lamongan, *Informasi Kinerja Pengelolaan Lingkungan hidup Kabupaten Lamongan 2016* (Lamongan: Dinas Lingkungan Hidup Kabupaten Lamongan, 2016).
38. Dinas Lingkungan Hidup Provinsi Jawa Timur, *Dokumen Informasi Kinerja Pengelolaan Lingkungan Hidup Daerah Provinsi Jawa Timur 2017* (Jawa Timur: Dinas Lingkungan Hidup Provinsi Jawa Timur, 2018).