
Social Mapping for a Popular Economic Improvement in an Industrial Area

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Abstract:

This research on mapping and urgency of handling of social problems in industrial area in Indonesia aims to determine the geographical, demographic, psychographic, economic and socio-cultural conditions as well as the urgency of handling social problems.

The study used 120 respondents consisted of 20 respondents for each of 6 urban villages (3 coastal areas and 3 non coastal areas). Data analysis was conducted used descriptive and the analysis of SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. SWOT matrix has been largely used as a strategic planning tool used to identify the internal and external conditions. This tool is also useful for mapping project planning and business competition.

The study was conducted in Gresik industrial are, one of the largest industrial areas in Indonesia. The general condition of respondent living environment includes the land altitude between 3-4 meters from sea level, rarely rain, lowland, and hot weather, densely populated with female population almost equal to men.

The results also show that the community actively learn and carry out religious activities adopted by the facilities and infrastructure of religious worship that has been good and complete; most of the conditions of the region have not supported the welfare of the population and regional development. In terms of leadership, village heads have a big influence and high role for society.

In the context of weakness and threats, each region has urgency handling different problems but the main problem that must be handled is the environment, lack of development of SMEs, and facilities and infrastructure that have not been adequate.

Keywords: *Social problem, mapping, SWOT analysis, problem solving urgency.*

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1. Introduction

The existence of large industries in Gresik Regency, East Java, Indonesia can cause social problems. According to Bambang and Melia (2013), social problems are related to social conditions concerning the existence of individuals in society related to the deterioration of the welfare of the community, such as poverty, lagging, unemployment, layoffs, disease, suicidal tendencies, substance abuse or narcotics. The complex complexity of social problems in the last decade and the implementation of decentralization has placed Corporate Social Responsibility (CSR) as a concept that is expected to provide a new breakthrough in empowering the poor (Budi, 2008). The above social problems can be prevented and mitigated if companies conduct CSR programs based on a commitment to grow with the community (Setyawati *et al.*, 2017; Yazid and Suryanto, 2016).

According to Budi (2014), corporate social responsibility is a continuous commitment from the business world to act ethically and contribute to the economic development of the local community or the wider community. According to Situmeang (2016), Srinita (2017), along with the development of global environmental issues, the concept and application of CSR is growing, including in Indonesia. CSR is not merely a social obligation of the company. In addition, Kurniawan (2017) states that it continues to encourage community involvement and initiative in formulating, running and evaluating the company's CSR program, so that the CSR program of the company is able to establish community.

Social problems are issues related to social conditions concerning the existence of individuals in society such as the condition of the deterioration of people's welfare, among others poverty, lagging education, unemployment, layoffs, disease spread, suicidal tendencies, substance abuse or narcotics (Bambang and Melia, 2013). While mapping the social problems of a territorial includes the depiction of a region about geographical, demographic, psychographic, and socio-cultural conditions (Djafri and Rahmat, 2017).

Geographical conditions covering area, population growth, road facilities, village infrastructure, land and land structure, and density of settlements. While demographic conditions in the form of population composition based on age, gender, education, livelihood, income level, birth rate, mortality rate and displacement. Meanwhile, the psychographical conditions include lifestyle, social behavior, social activity, and public interest. Socio-cultural conditions in the form of social strata of society, characteristics of family culture, the value of social interaction of society, social groups, and social institutions.

2. Methodology

The data used are primary and secondary data. Primary data was obtained through discussions with community groups (Focus Group Discussion), observations, and

surveys. Secondary data is Population Aggregate Data (2016), and required documents taken from villages, sub-districts and other sources. Respondents were 120 respondents consisting of 20 respondents in 6 industrial areas in Gresik Regency observed were 3 coastal areas and 3 non-coastal areas. Respondents cover the components of the community, ie head of village, head of neighborhood association, Family Welfare Empowerment Movement, Youth Association, Village Community Resilience Council, SMEs, and community. Measuring tool used is in the form of questionnaire.

Data analysis in this research is descriptive and SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. SWOT helps in identifying organization's core competencies i.e potential strengths and utilizing those in exploiting opportunities and counteracting threats; and identifying weaknesses in order to diminish them (Agarwal *et al.*, 2012; Dyson, 2004). The urgency of handling social problems is based on weighting on the problem areas. Recommendations in the form of programs can harness the strengths and opportunities that exist, and minimize the existing shortcomings and threats.

3. Results and Discussion

3.1 Conditions of geography, demography, psychography in industrial areas

The geographic condition of industrial area in Gresik Regency is the same for three coastal areas (C1, C2, C3) and non-coastal areas (NC1, NC2, NC3) where this study was conducted such as land height between 3-4 meters from sea level, rarely rain, lowland, and hot weather. Coastal areas bordered by the sea / strait. The first northern village is adjacent to the Madura Strait. Second village is also located in north and east bordering the Madura Strait, while the third village next to the northern border with the Java Sea. Meanwhile, non-coastal areas in this study are bordered by other urban villages.

Table 1. Allocation of Area for Coastal Areas

No	Allocation	C1	C2	C3
1.	Total Area	34.64 ha	10.76 ha	364 ha
2.	Residential ares	39.99%	80.86%	29.79%
3.	Public Facilities	51.03%	2.23%	59.18%
4.	Other	8.98%	16.91%	11.03%

Table 2. Allocation of Area for Non-Coastal Areas

No	Total Area	NC1	NC2	NC3
1.	Residential ares	63.75 ha	65.36 ha	18.13 ha
2.	Public Facilities	48.25%	9.73%	86.77%
3.	Other	22.75%	84.57%	9.29%

4.	Total Area	1.57%	5.70%	3.94%
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The level of community activity in the villages is quite solid and encourages socio-economic growth in a better direction. It is found that in these industrial areas there are settlements, shops / commerce, schools, ports, markets, terminals, subdistrict offices, and tourist sites and most roads are in good condition. From Table 1, it is found that most of C2, NC1, and NC3 urban areas are mostly resettled. However, most of C1, NC2, NC3, and C3 urban areas are mostly designated for public buildings such as roads, offices, shops, schools, sports facilities, markets, and places of worship, as well as industry. Meanwhile, land in non-coastal areas is more certified than in coastal land. The fact is that NC1 (98.63%), NC3 (90%), NC2 (80.71%) of the land units are already certified, while C1 (50.13%) and C2 sub-districts only have 21.18% of the land units have been certified.

Table 3. Population of Coastal Areas

No.	Information	C1	C2	C3
1.	Total Population	6.890	4.621	5.753
2.	Male (%)	44,33	49,49	50,95
3.	Female (%)	55,67	50,51	49,05
4.	Population Density	497	531	53
5.	Total Household (RT)	1.916	1.113	1.685
6.	Household Density	138	128	16
7.	Average person per household	4	4	3

Table 4. Population of Non-Coastal Areas

No.	Information	NC1	NC2	NC3
1.	Total Population	6.267	1.911	5.960
2.	Male (%)	49,69	51,60	50,39
3.	Female (%)	50,31	48,40	49,62
4.	Population Density	130	300	507
5.	Total Household (RT)	1.355	494	1.981
6.	Household Density	28	78	168
7.	Average person per household			

Most industrial areas are densely populated with nearly the same female population as males. From Table 3, it is found that the number of male and female population is almost the same in Villages of C2, NC1, NC2, NC3, and C3. However, the number of female population is higher than that of men in C1. Population density per residential area in C1, C2, NC2 and NC3 villages is high, but the density is low in C3 and NC1 villages (Table 4). Meanwhile, household density per residential area in C1, C2, NC2, and NC3 is high, but the density is low in NC1 and C3. The average person per household is between 3-5 people. People in this industrial area are actively studying and carrying out their religious activities with facilities of worship

owned by the region. The source of clean water is from water company, piping, and water that is obtained by buying it to the merchant. In C1 there are still residents who defecate in the river/ditches, while in C2, NC1, NC2, NC3 and C3 no residents defecate in river. All houses have latrines/toilets, even in the village of C2 there are 2 units of communal wastewater disposal installations.

Table 5. Economic Conditions

No.	Information (Coastal Areas)	C1	C2	C3
1.	Productive manpower (%)	88.46	32.12	29.78
2.	Income for food needs (%)	40	40	40
No.	Information (Non-Coastal Areas)	NC1	NC2	NC3
1.	Productive manpower (%)	65.47	47.97	21.79
2.	Income for food needs (%)	70	75	70

Most of the residents in industrial areas have not been prosperous. From Table 5, it was found that fewer people were absorbed as workers in C2 (32.12%), C3 (29.78%), NC2 (47.97%) and NC3 (21.79%). Employment of populations include civil servants, private employees and self-employed, micro, small entrepreneurs, and fishermen. But most workers have a small income so only for food needs. Nevertheless, the housing conditions of the residents in these six areas are quite good, ie most houses use electricity, walled walls, tiled / ceramic floors, roofed tiles. Most of the houses are self-owned, and most citizens have communications media such as television, mobile phone, and internet.

Table 6. Economic and Tax Unit

No.	Information	C1	C2	C3
1.	Economic unit :			
	- Large industry	2	-	63
	- Middle industry	-	-	10
	- Home industry	18	33	7
	- Stall	462	-	56
	- Cooperative	3	1	3
	- Ponds, farms (Ha)	3	-	-
2.	Tax :			
	- (million IDR/annum)	55.55	36.39	118.61
	- Taxpayer (person)	2,033	894	n/av
No.	Information	NC1	NC2	NC3
1.	Economic unit :			
	- Large industry	-	4	2
	- Middle industry	-	-	-
	- Home industry	18	-	81
	- Stall	3	-	22
	- Cooperative	2	5	6

	- Ponds, farms (Ha)	-	-	-
2.	Tax : - (million IDR/annum) - Taxpayer (person)	141.31 1,095	46.45 410	131.48 1,151

Economic activity in this industrial area is active. From Table 6, it can be seen that large and medium industries are located in C1, NC2, NC3, and C3. But the tax support on all these areas is not yet optimal both from the value and the taxpayer. In addition, the home industry or SMEs in the region are less developed. Problems faced by them include lack of capital and marketing network. Type of SMEs, mostly for food that is fish crackers, milkfish, catfish cultivation, potato chips, cake, and tempe. Then SMEs are for clothing production such as religious needs of muslim.

Others SMEs are for trading such as coffee shops, phone counter, grocery store, and rice stall. The village head has an important and central role in the community, with a direct relationship to existing community institutions. In addition, this industrial area can appear the social potential of vulnerable groups (poor families, children under five, and the elderly). The potential for conflicts in the coastal areas include dirty seafront issues, air pollution, and fishing boat docking boats become narrow causing the results of fish responses to decline and uncomfortable fishermen. But the potential for this conflict can still be resolved as governments, corporations, and communities work together to tackle it. The CSR program has been in many of the six areas but has not yet had an impact. Only CSR in the form of a scholarship program and after graduation is accepted as an employee and working capital loan is assessed as a program that is implemented continuously and is able to improve the welfare.

Table 7. Social Condition

No.	Information (Coastal)	C1	C2	C3
1	Community institutions with great influence and high importance	Village head, mosque administrator	Village head, mosque administrator	Village head, youth association, mosque administrated and cooperatives
2	Vulnerable group	205 poor household, 376 toddler, dan 385 elderly	107 poor household, 318 toddler, 410 elderly	116 poor household, 462 toddler, 189 elderly, 901 expectant
No.	Information (Non-	NC1	NC2	NC3

	Coastal)			
1	Community institutions with great influence and high importance	Village head, RT heads	Village head, SMEs organization, mosque administrated,	Village head, society figures, traders
2	Vulnerable group	200 poor household, 547 toddler , 438 elderly	50 poor, 79 toddler, 109 elderly, 15 expectant	79 poor, 425 toddler, 364 elderly, 48 expectant

3.2 SWOT Analysis

SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) on the communities and industrial estates is described in Table 8. There are 8 areas of problems faced by the community in the industrial area, namely environment, community welfare, social and religion, facilities and infrastructure, lack of development of UMKM, health, role of village not yet optimal, and education.

Table 8. SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats)

No.	SWOT	Description
	Strength	<ul style="list-style-type: none"> • Good road conditions so transportation is smooth. • Health, education and public facilities are relatively adequate • Number of manpower with adequate education and skills • Most communities have communications media • High community interest for skills upgrading and skills. • The community is active in social and religious activities, especially Islam. • Public interest in the maintenance of public infrastructure is good, because the infrastructure is for their benefit.
	Weakness	<ul style="list-style-type: none"> • Many organizations can support a powerless economy such as fisherfolk associations, family empowerment program, cooperatives • Public awareness of the clean environment and tax payments is lacking
	Opportunities	<ul style="list-style-type: none"> • Good support from corporations and village governments towards community activities, especially sustainable CSR programs and impact on community welfare, regional development and environmental hygiene • Not yet utilized optimal processing of marine products that can support the economy of society and region
	Threat	<ul style="list-style-type: none"> • Many large industries and SMEs, but do not absorb enough local people as workers despite adequate education and skills, resulting in a lot of unemployment • Local residents working on a small income • The seafront / beach is dirty and smelly. Mostly because of public

		garbage, because it is located besides industrial waste. • Have clean water and flood problems as close to the sea.
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3.3 Program Recommendation

There are 8 main problems. First is environmental problems such as contaminated sea, air pollution, garbage, clean water and flood problems with the handling environmental issues through several things such as companies have to minimize the occurrence of air pollution and disposal of factory waste to the sea because it affects the health of citizens, training on disaster management and emergency response teams such as floods, air pollution, etc. by involving community participation, seafront / beach cleanliness program and environmental health. Cooperation between local government, community, and surrounding companies, establishment and assistance of waste banks and waste management training into value-added products, mangrove conservation and training are needed to increase environmental awareness of clean waterways to cope with flooding.

Second is community welfare including poverty, unemployment and the seawater has not been optimally supporting the welfare of the people even declining. The handling is through some efforts such as empowering poor family members and orphans, large companies can absorb the workforce through business development in the areas of educational services by establishing elementary, junior high school, high school quality, religious education-based institutions, national certified education profession. In terms of non-educational services is conducted through the role of hotel, cooperative, supermarket, housing.

Unoptimal use of marine resources can be handled through training and assistance for value-added of marine catches, marine aquaculture or brackish water to further empower fishermen and their organizations, socialization to fishermen about marine safety, the existence of insurance for fishermen go to sea, and empowering unemployed fishermen. Build citizens into entrepreneurs with existing potential and build their creativity to be able to produce products through entrepreneurship training especially for processing and packaging of culinary processed seafood and handicraft from the existing resource that is shellfish, fish scales and others. Moreover, it is important to company side products to be managed by the community (Wahyuni and Ginting, 2017).

Third is social and religious issues, such as the ignorance of the community, especially migrants, most people want to actively carry out social and religious activities, juvenile delinquency, and large number of unproductive age population (≥ 65 years old). This issue can be handled by increased motivation training to move forward together, activities that involve the participation of many citizens such as environmental hygiene contests, greening the environment, support facilities for joint pilgrimage and religious contests, and organizing arts and cultural achievement events at urban and district levels in cooperation with other regions. In the context of

facilities and infrastructure, there are still residents who defecate on the edge of the beach / sea, means of family service to the community is not sufficient, and more optimized village land. The troubleshooting is through public toilets needed to improve environmental awareness, support to the village in the form of garbage bin, wheelbarrow cart, wheeled corpse, garbage disposal, and water pump, green garden, utilization of village land for market or multipurpose building for sports facilities and community empowerment or hydroponic land, and support for vilage form a standby car to provide service to the community, mobile library car and children's play equipment, village owned company capital assistance and facilities for sporting events.

Fourth, lack of SMEs in terms of lack of venture capital, lack of marketing support, and number of coffee shops. The issue can be handled through working capital loan for SMEs, can be sourced from banks, financial institutions, and village owned enterprises, exhibition events, bazaars both inside and outside the city, information technology training for on line marketing, training and counseling of coffee compounding, and suggested SMEs coaching in cooperation with the Office of SMEs and cooperatives (Budiharseno, 2017; Nugroho *et al.*, 2017).

Fifth, health problems such as respiratory infections, dengue fever and gastroenteritis with the troubleshooting through healthy village, papsmear examination, and free treatment, fogging, establishing community health centers in cooperation with district health offices, and the socialization of healthy living in the environment and the accompaniment of clean and healthy culture in the household and the prevention of dangerous diseases (Lisdiyono, 2017).

Sixth, there is an unoptimal role of administration such as the transparency of CSR funds, less close to the village apparatus with the community, lack of youth coaching, difficulty dealing with land certificates and less successful family planning (Lisdiyono and Suatmi, 2017). This issue can be handled by submission of CSR funds for community empowerment through one door service, and also carried out accountability and supervision of funds provided, more improving services to the community, including the smooth handling of land certificates, business licenses,

ID cards, etc, involving youth, community and community leaders in many activities as citizens, among others the village community with community leaders and even socialize the programs of health and regional development on a regular basis, the socialization of the dangers of drugs in cooperation with the police, socialization of venereal disease, tax, family planning, empowering more community youth organizations, fishermen associations, family empowering program, and religious organizations, inventory qualifications of labor and what qualifications are needed by companies that require a large enough workforce, and facilitating adequate sports facilities so that adolescents will be channeled into activities for sportive activities and organize a tournament activity for their achievement in cooperation with surrounding companies.

Lastly, in terms of education, there are some problem related to dropout, and lack of opportunities for higher education. Handling problems include by establishing community learning activity centers that provide equivalent education to accommodate out-of-school residents. In addition, this center can also provide education and other field training, vocational training for the community. Improved knowledge and skills is needed for the workforce in accordance with the competency standards that are required by the surrounding companies through learning center institutions that are built in cooperation with the industrial world. There is a need for existence of training to increase the selling point in the labor marke, the scholarships, support the lower cost of education by establishing community learning activity center, and improved education assistance for teachers.

3.4 Urgency of Handling Social Issues

The urgency of problem resolution in each different observation area. From Table 7, it can be spelled out that 3 main problems in C1, namely environment, social welfare, and social as well as religion. The main problem in C2 there are 3, namely environment, education, and lack of development of SMEs. The main problem in C3 is 3, that is the environment, the role of village administrator is not optimal, and the lack of development of SMEs.

While the 3 main problems in the NC1 is the facilities and infrastructure, environment, and lack of development of SMEs. Meanwhile, 3 main problems in NC2 are facilities and infrastructure, lack of development of SMEs, and environment. Furthermore, three main problems in NC3 are environment, facilities and infrastructure, and the role of village administrator not yet optimal. So that can be known 3 main problem of society at 6 industrial area in Gresik Regency is environment, lack of development of SMEs, and infrastructure facilities that are less adequate.

4. Conclusion and Recommendations

Regional industrial territory in Gresik Regency can be driven socio-economic growth to a better direction given the geographical conditions it has a height of land from sea level relative as high as 3-4 meters, rarely rain, lowland, and hot weather. Access to the region is easy to reach. The condition of most roads is good, although some roads are still damaged due to the influence of large vehicles. The area is used for residential, public buildings such as offices, shops. The area of the industrial territory should receive attention from the government and industry because the area has a relatively high population density and will continue to grow. Meanwhile, existing public facilities are considered relatively adequate such as facilities and education personnel, health and sports / arts. Gresik regency is also known as the pesantren area. The majority of the people are Muslims. The community actively learns and carries out its religious activities. In addition, facilities and infrastructure worship is good and complete.

The condition of the region is the number of industries and the existence of natural resources has not supported the welfare of the population and the development of the region. The population is not prosperous, but education and skills are relatively adequate. Meanwhile, SMEs in the region are less developed and the problems they face are the lack of capital and the lack of marketing networks. Village Head has great strength and high interest for society and existing social organization. CSR programs are numerous but not yet impacted. Only the educated persons can be accepted as an employee rated as a continuously implemented program and can improve the welfare. Vulnerable groups consist of poor, toddler, pregnant women, and the elderly. Potential conflicts in coastal areas include environmental problems such as seafront / dirty, smelly, and contaminated so many fishermen lose their jobs because the seawater is not optimal.

Social problems that arise in the six areas are 8 areas of problems: environment, community welfare, social and religion, facilities and infrastructure, lack of development of SMEs, health, role of the village is not optimal, and education. But the urgency of handling problems in the six areas are different areas of the problem. The main problem in these six areas is the environment, lack of SMEs, and inadequate facilities and infrastructure. The local government and industries in Gresik Regency need to work together in carrying out community improvement programs and regional development by taking into account the strengths, weaknesses, opportunities and threats that communities and the region have. So that people's welfare and regional development can be achieved without causing new problems.

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