Study of the Social Impact of Environmental Management: Farmers Perceptions of Takalar Industrial Area Development Planning

Andi Zulkarnaim Sumang1, Tasrifin Tahara2, and Eymall B. Demmallino3

1Study Program of Environmental Management, Graduate School, Hasanuddin University, 90245, Makassar, Indonesia
2Department of Anthropology, Faculty of Social and Political Sciences, Hasanuddin University, 90245, Makassar, Indonesia
3Department of Social Economics Agriculture, Faculty of Agriculture, Hasanuddin University, 90245, Makassar, Indonesia

Abstract. The establishment of the Takalar Integrated Industrial Park (KITA) is confirmed by Presidential Regulation no. 18 (2020), aligning with the 2020-2024 National Medium Term Development Plan, which outlines the development of 18 industrial areas. It is imperative that the development process synchronizes with human resource advancement to yield benefits for both the environment and the neighboring farming community. This study aims to gauge farmers' perspectives on the social aspects of managing their environment in light of industrial area development plans, focusing on demographic, socio-economic, and cultural factors. Employing a descriptive qualitative approach, the research conducted Focus Group Discussions (FGDs) involving six farmers and informants to assess their perceptions and expectations regarding KITA's development. Results indicate overall farmer approval of KITA's development, with a majority holding positive perceptions of the planning process. Demographically, farmers anticipate KITA's development as a primary avenue for increasing employment opportunities. They also foresee business prospects that could enhance their economic status, alongside anticipated improvements in infrastructure and the expected population growth. In terms of socio-cultural dynamics, concerns regarding potential clashes between local communities and newcomers are minimal, with farmers believing that cultural disparities will not disrupt traditional activities.

1 Introduction

The development of the industrial sector is part of the national development process in increasing economic growth which has brought changes to people's lives. These changes occur from various aspects including the socio-economic aspect which includes people's livelihoods from agriculture to industry and trade as well as the opening of wider employment opportunities for local communities and migrant communities, while from the socio-cultural
aspect which includes the reduction in the binding strength of the existence of community
values and cultural norms, which is due to the infiltration of new cultural values and norms
brought by immigrant communities [1].

One of the industrial area developments carried out is the construction of the Takalar
Regency industrial area which is taking place in 2 villages, namely Laikang Village and
Punaga Village in Mangarabombang District. The development of the Takalar Integrated
Industrial Park or Takalar Industrial Area is stipulated in Presidential Regulation no. 18 of
2020 concerning the 2020-2024 National Medium Term Development Plan as one of the 18
industrial areas being developed. Based on RIPIN 2015-2035, (2015) Takalar Regency was
designated as one of the Industrial Growth Center Regions (WPPI) which acts as the prime
mover of the economy of South Sulawesi (WPI), through the development of priority
industries; 1) Food Industry (Mainstream Industry), 2) Textile, Footwear and Miscellaneous
Industry (mainstay industry), 3) Upstream Agro Industry, (Upstream Industry) & 4) Basic

According to [2], the implementation of development in all aspects of national and state
community life is carried out by the government together with existing components in
society. One of the Government's strategies to improve community welfare is to build
physical facilities and infrastructure in addition to improving human resources. The
implementation of the Takalar industrial area development must be followed by an increase
in human resources so that it can provide benefits to both the area and the surrounding
community. The resulting benefits are not only in the form of improving the community's
economy but also social development of the community so that it can be used as an industrial
area which is the main industry for the development of the area.

The role of industrial areas whose benefits will be received by the community needs to
be studied to determine community perceptions of development planning and social aspects
in managing the community's living environment regarding industrial area development
plans, especially the demographic, socio-economic and cultural conditions of the community.

The problem formulation of this research is "What are farmers' perceptions of Takalar
industrial area (KITA) development plan related to the study of social aspects of community
environmental management?" and the aim of this research is to find out farmers' perceptions
regarding the study of the social aspects of environmental management of KITA development
plan in Takalar Regency, South Sulawesi.

2 Research Method

2.1 Research Design

This research was carried out in Laikang Village and Punaga Village, Mangarabombang
District, Takalar Regency, South Sulawesi Province. The determination of this research area
was based on the consideration that this area was an area that would be developed into a
Takalar industrial area (KITA). Of a number of villages in Mangarabombang District,
Laikang Village and Punaga Village are the villages that will be the locations for KITA
development. The research was conducted in April 2023.

The method used in this research is the analytical approach used in this research is
descriptive qualitative analysis. Qualitative analysis in this research was used to describe
farmers' perceptions of the Takalar industrial area (KITA) development plan. According to
[3], the stages of descriptive analysis are 1) data collection, 2) data reduction, 3) data
presentation, and 4) drawing conclusions or verification.
2.2 Samples and Data Collection

The selection of informants was carried out using a snowball sampling technique in which key informants provided recommendations for informants who were deemed capable of providing the information needed in the research. Next, a Focus Group Discussion was held with six informant farmers and stakeholders. FGD participants consisted of four farmer informants and one village official and one traditional leader as key informant.

3 Results and Discussion

3.1 Farmers’ General Perception of KITA Development Planning

Each stakeholder has their own perception and this perception can influence their behavior and actions. Based on the results of focus group discussions with farmers and stakeholders, it can be seen that farmers have the perception that KITA's development plan is an industrial area development plan in which there will be many production activities such as manufacturing activities and processing of raw materials into products through factories that will be established. In accordance with the opinions of several farmers and informants as follows:

"What I know is that industrial areas are complex in that there are many companies that process or make things, such as those in the Bantaeng industrial area and KIMA in Makassar" (Edi – Seaweed Farmer)

Informant farmers stated that they received information regarding KITA's development planning through information obtained from friends and submissions from local village officials. Socialization activities related to industrial area development planning have also been carried out by the government and developers with the aim of providing information regarding KITA's development planning.

"From friends to friends and the village government also used to convey the substance of a government program to build an industrial area" - (Edi – Seaweed Farmer)  
“Pernah, dulu di balai desa dilakukan penyampaian” (Syukriansyah – Village Officials)

The community believes that some villagers, especially in Laikang Village and Punaga Village, have sufficient knowledge related to industry and some people even work in the industrial sector.

"There are some people who have a background to work in the industry. If they have participated in counseling or training, they don't know yet"  
(Syukriansyah – Village Officials)

Based on the above statement, the people of Laikang Village and Punaga Village admitted that they have never participated in training or counseling activities related to industrial activities. For this reason, the local community's knowledge of the social aspects of environmental management needs to be improved.

Social impact assessment is an inseparable part of other component studies in environmental management. Farmers' perceptions of the social aspects of environmental management of KITA development are a major factor that can lead to farmers participating as stakeholders and contributing to KITA development.
3.2 Farmers' Perceptions of Demographic Aspects of KITA Development Planning

Industrial areas often attract many people looking for employment opportunities. This can lead to population growth in the area, especially if the industry is booming. It will come from the CBD. In some instances, it has been shown that the decline in population density is ultimately due to the takeover of residential land by business and industry [4]. Community perceptions of changing demographic conditions will be examined in terms of the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Structure</td>
<td>- population composition</td>
</tr>
<tr>
<td></td>
<td>- population density</td>
</tr>
<tr>
<td>Population Development</td>
<td>- population growth</td>
</tr>
<tr>
<td></td>
<td>- population mobility</td>
</tr>
<tr>
<td>Labor Force</td>
<td>- labor force participation rate</td>
</tr>
<tr>
<td></td>
<td>- unemployment rate</td>
</tr>
</tbody>
</table>

Farmers believe that the increase in population due to outsiders coming as workers or employees brings good impacts such as cultural acculturation and openness of social relations between migrants and local communities. Farmers are aware that with the existence of the industrial estate, many migrants will be present in their village, with a variety of different cultures and characters. They hope that the migrants who will enter their village will not interfere with their agricultural activities.

"Yes, there will be additions, especially if there are workers from outside the area who come in, but we hope that the immigrant community will respect what applies in the village" (Karaeng Kaseng - Community Leader).

"I agree that an industrial area will be built in our place because it is a good thing for us farmers. not only will our income come from agricultural activities but there will be other income because there will be many newcomers. and that is very good. I can build food stalls, workop or gadde-gadde near my house" (Rusman - Seaweed Farmer).

"I have no problem with the presence of migrants or workers from outside the area. We can socialize with them, exchange experiences and others. the important thing is not to make problems such as fighting, not respecting existing norms. as long as we respect each other I think it is a good thing". (Baharuddin Dg Tojeng - Farmer / Rancher)

The existence of this industrial estate development can improve relations between communities and improve their economic conditions due to the changing population structure, population development, and labor absorption when this industrial estate has operated.

3.3 Farmers' Perceptions of the Economic Aspects of KITA Development Planning

Development has a tremendous impact on the welfare of society. Although the goal of industrial development in any region is to provide better living and employment opportunities to the community, the likelihood of adverse impacts on the environment also increases if these adverse impacts are not properly addressed or reduced to a minimum [5]. The economic
aspect parameters that are in accordance with the characteristics of the Takalar industrial area development plan are as follows:

### Table 2. Components and Parameters of Economic Aspects.

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Economy</td>
<td>- Income Level</td>
</tr>
<tr>
<td>Natural Resource Economics</td>
<td>- Ways of Natural Resource Utilization</td>
</tr>
<tr>
<td>Local and Regional Economy</td>
<td>- Public Facilities and Social Facilities</td>
</tr>
</tbody>
</table>

Farmers in Mangarabombang Sub-district, especially in Punaga Village and Laikang Village generally utilize their land with horticultural crop cultivation, livestock farming, and seaweed cultivation. With the construction of the industrial estate, farmers hope that their economic conditions will be better, namely by increasing income along with increasing business opportunities that can be utilized by local farmers.

"....... because of the activities later in the industrial area there will be many immigrants and there will be many daily activities. so businesses such as laundry, food stalls, and others will grow. we as the village government hope that the establishment of an industrial area in our area will increase the welfare of the community, and it will also have a huge impact on regional income...." (Sukriansyah – Village Officials)

"....... will definitely have an impact on more and more people who come with their respective needs. many branches of business that I can do. such as opening food stalls, coffee shops, printing and so on...." (Rusman - Seaweed Farmer)

".......especially during the process of building an industrial area, it must be very influential, the roads are definitely damaged and dusty because of the many trucks passing by. the important thing is that during that time there are things that are done such as watering the roads when they are dusty. after that, if the industrial area has been completed, we the community hope that the roads that are passed or damaged can be good and comfortable to use" (Baharuddin Dg Tojeng - Farmer and Cattle Raiser)

"It's a pity for us farmers if the land purchased by the industrial estate is not moved to another place. apami pekerjaanta. I already plan to move the land purchased by the industrial estate" (Agus Dg. Bella - Farmer / Trader)

Farmers' hope for this development activity is that there will be no loss of agricultural land or pollution of sea water due to the development of industrial estates. Farmers expect the government to provide options such as moving the cultivated agricultural land to another place so as not to reduce the income from the agricultural products cultivated.

### 3.4 Farmers' Perceptions of the Socio-Cultural Aspects of KITA Development Planning

Preservation of cultural heritage is one of the steps in maintaining cultural heritage that shows the level and development of ancestral civilization, and still maintains important values for history, science, education, religion, and culture [6]. The parameters of socio-cultural aspects used to see farmers' perceptions of the KITA development plan are:
Table 3. Components and Parameters of Cultural Aspects.

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>- Customs</td>
</tr>
<tr>
<td></td>
<td>- Cultural Values and Norms</td>
</tr>
<tr>
<td>Power and Authority</td>
<td>- Decision-making Mechanisms among Communities</td>
</tr>
</tbody>
</table>

The culture and values of local communities can play a big role. Farmers who are deeply attached to their environment are likely to see industrial development as a threat to the marine ecosystems they protect. Seaweed farmers have traditions and cultural heritage that are perceived to be associated with their livelihoods. They are concerned that industrial development activities will result in the extinction of these traditions.

"From what I got from the explanation at the village hall, this activity will not interfere with the customary activities in the village. it will be maintained as local wisdom. we will refuse if customs are disturbed. For example, the maudu' lompoa is a sacred event for the community" (Edi - Seaweed Farmer).

"the maudu' lompoa event is a sacred event of the community. which should not be disturbed. this activity is a symbol of hope and repellent (of danger) for the community. the hope is that when the development of this industrial area does not interfere with this activity or ceremony. if it is disturbed, it is likely that the community and especially community leaders will not agree to the development of the industrial area." (Karaeng Kaseng - Toko Budayawan)

Farmers in Mangarabombang sub-district hope that the Maudu' Lompoa celebration and the existing customs, values and norms will not be interfered by industrial development activities. Farmers in Mangarabombang sub-district, especially in Punaga village, view this celebration as a symbol and hope for the continuation of their agricultural activities. On the other hand, it is also a place for friendship between farmers and village communities.

4 Conclusions

Farmers in Kecamatan Mangarabombang are people whose lives depend on land and sea. Most farmers cultivate their agricultural fields in the management of rice fields, chili peppers, animal husbandry and seaweed cultivation. Looking at farmers in Mangarabombang Subdistrict, especially farming communities in Punaga Village and Laikang Village, the development plan of the Takalar Industrial Estate will greatly affect the social, economic and cultural life of the community. This is shown in the positive perception of farmers or most farmers agree to the construction of industrial estates. In the perception of farmers, their village has the potential to become a growth center area by making the area a Takalar Industrial Estate, where the existence of an industrial estate will stimulate the growth and development of areas around Mangarabombang Sub-district. In relation to the social, economic and cultural development of farmers, the existence of the industrial estate will improve the standard of living of farmers and communities around Punaga Village and Laikang Village which is realized in the form of an increase in farmers' income, as well as in the availability of social, economic and cultural facilities and infrastructure for farmers and communities. Almost all informants agreed that the Takalar Industrial Estate development plan would be beneficial for the progress of the community, especially in terms of improving
the socio-economic status of farmers. Overall, the average farmer agrees to the development of the Takalar Industrial Estate development plan with the main hope that the Takalar Industrial Estate will later absorb local labour so that the unemployment problem can be overcome.

References