LOCAL PERCEPTION OF THE DEGRADED LAND IMPACT

Sulistya Rini Pratiwi*, Yohanna Thresia Nainggolan, Meylin Rahmawati

Faculty of Economics, Universitas Borneo Tarakan, Indonesia

*Corresponding author: sr.pratiwi@borneo.ac.id

ARTICLE INFO	ABSTRACT
	This study aims to determine the perceptions of the farmers about the degraded land impact in Tarakan City. The study was conducted at the agricultural center, Juata Permai Village. This study was a descriptive study using a qualitative approach. The data collection used was by questionnaire and in-depth interviews. The result calculation of the score related to the farmers' understanding of the degraded land impact was not-good. This showed that the level of knowledge and understanding of the farmers about the degraded land impact is low. In terms of the government's responses, obtained an average of 31.37 and the not-good category. This suggested that the government prevention policy was relatively not effective and tended to be less informative. Overall, this showed that the farmers' appreciation for the improvement of degraded land belonged to agree category.

1. INTRODUCTION

These are important instructions and explanations. Thank you for your cooperation. Land is one of the most important resources to complete all the necessities of life. Land that has capabilities is the land that is potential for economic activity. However, if the land designation is not as its capabilities, this will degrade the land capabilities (Wang et al., 2021). The degradation of the land productivity occured was generally caused by erosion (Gomiero, 2016; Nkonya et al., 2015).

Especially upon the agricultural land for food crops, rainwater caused a decrease in the physical, chemical and biological quality of the soil, and a reduction of the nutrients and organic matters and the crops. Erosion removed the topsoil, commonly called humus, which is the most fertile and best layer for plants, and leaving barren soil, even the solid soil (Dijk et al., 2004; Sitorus & Pravitasari, 2017; Sumiahadi & Acar, 2019).

Land cultivation carried out as the land capabilities will produce quality products (Kanianska, 2016; Kasryno, 2000; Kumar et al., 2012). Beside, the land cultivation is keeping the land capabilities and usage (Ante et al., 2016; Chao & Lin, 2017; Lilburne et al., 2020; Zhang & Schwärzel, 2017). Humans are tended to overuse the natural resources with less attention to the cultivation and limitation of the resources. Thus, it will be worrisome if the degraded land occurred as a result of population pressure (Gomiero, 2016; Kanianska, 2016).

In general, degraded land indicates a decrease in environmental quality as a result of the various uses of land resources that are not wise and not in accordance with existing rules (INTOSAI Working Group on Environmental Auditing, 2013; O'Sullivan et al., 2018). Tarakan City has a critical land area of 106.70 ha and 36.24 ha is very critical, and 90.77 ha has the potential to be rather critical. Without improvement efforts, the potential for critical land will increase (Pratiwi et al., 2018). Therefore it is important to know about the understanding of the farming community on the impact of the degraded land.

Understanding the impact of critical land is a community effort to mitigate the impact of critical land. One of the mitigation efforts is by issuing environmental services, which are financial incentives for land users to conserve and restore ecosystems. If land users are better informed about degraded land, then they can increase their rent by demanding higher payments (Pratiwi et al., 2020) (Pratiwi et al., 2020; Santos et al., 2021).

2. RESEARCH METHODS

Perception is an individual interpretation of the meaning of an object or event (Chartrand & Bargh, 1999). Perception is formed through a series of processes (cognition) that begin by receiving stimuli or stimuli from objects by the senses and are understood by interpretation or interpretation of the object in question. Talents, interests, wishes, feelings, fantasies, needs, motivations, gender, age, personality, habits, etc., and other characteristics that are unique to a person. Perception is influenced by cultural and socio-economic factors such as environmental education of residence and ethnicity (Fragouli & Theodoulou, 2015; Kastanakis & Voyer, 2014). One's perception and behavior is a form of social characteristic that is widely considered to manage community-based land. From the socioeconomic aspect the success of a program is influenced by perceptions and behaviors as factors that drive the level of community participation (Mamuko et al., 2016; Suwarto & Anantanyu, 2012).

The existence of productive land is very influential on the lives of farmers. To find out the role of farmers in land improvement and or maintaining land suitability, farmers' perceptions are needed. Some studies state that an individual's perception of his environment is an important factor and greatly determines the behavior of the individual. Farmers' perceptions of the impact of critical land can be influenced by internal factors (from within individuals) and external factors (or from the stimulus itself and the environment) (Philbeck & Witt, 2015). Understanding the impact of degraded land that causes a decrease in income will affect the attitudes and behavior of farmers towards land use. The assessment of these impacts is the internal factors of individuals in efforts to mitigate the impact of critical land itself (Sullivan & White, 2019; Taylor et al., 2014).

This research uses descriptive analytic method. The data collection method uses the method of observation, interviews, and documentation. Respondents in this study were 30 people consisting of heads of households who work as dryland farmers who were critically affected in the Juata Permai Village, Tarakan City. The type of data used is primary data and secondary data. Data analysis method used to determine farmers' perceptions is to use a Likert scale. Farmers' perception in managing land is obtained through asking questions presented in the form of questionnaires, then the answers are given a score.

3. RESULTS AND DISCUSSION
3.1. RESULTS

The difference in perception between one person and another is caused by: 1) Attention, stimulation or environmental conditions (Jackson et al., 2013; Sell & Zube, 1986); 2) Sets, is one's expectation of stimulation that will arise (Lange et al., 2018); 3) Needs, Daily needs as well as unexpected needs will affect the person's perception, 4) Value System, such as customs, beliefs, which apply in society (Bjornsdottir et al., 2017; Kastanakis & Voyer, 2014); 5) personality traits such as character, character, habits (Partos et al., 2016).

Based on table 1, the overall sex of the respondent is male, with an age range of 36 - 55 years. With the last level of education the majority of farmers are completing elementary school (Chen & Zheng, 2016; Eric et al., 2014; Lockheed et al., 1980). The status of respondent farmers in general is both the owner and land processor.

Table 1. Cultural Status Of Farmers

	Characteristic	Persentase
Gender	Male	30
	Female	0
Age	<35	0
	36 – 55	77
	>55	23
Education	Elementary School	60
	Middle School	10
	High School	20
	Other	10
Farmer Status	Farmer Owner (Cultivator)	73
	Tenant Farmers	10
	Cultivator	10
	Farm Workers	7

Source: Primary Data, 2022

Formal education increases the participation of farmers in land conservation. It is suspected that with the higher level of education of farmers, farmers' insights will also increase, including increased awareness in implementing land conservation. In line with the study by Adenle et al. (2022) and Jendoubi et al. (2020) explained that education influences an individual's perception of an object. Further explained by Mamuko et al. (2016) and Paltasingh & Goyari (2018) that the level of education influences the work of farmers in determining production inputs.

However, based on the results of the interview, the majority of respondents found and understood and related to critical land. Table 2 below shows farmers' knowledge and perceptions of critical land and their impacts. As many as 83% of respondents stated knowing and understanding related to critical land and its impacts. The highest perception of respondents is in the statement that the role of government is needed in tackling critical land (70%). However, respondents also agreed that the participation of farmers in conservation was no less important (63%). Conservation efforts carried out so far are only fertilizing and irrigation (Mashi et al., 2022).

In addition, the results of in-depth interviews obtained information that respondents' knowledge about the causes of declining productivity of agricultural land is due to water drought (57%). While only 13% know that the decline in land use is due to land incompatibility. As many as 60% of respondents stated that they lost the surface layer of fertile soil.

Table 2. Knowledge And Perception

	Statements					Yes (%)	No (%)
Knowledge	Do you know of the critical land?					83	17
	Do you know of the impact of critical land?					83	17
	Mean Knowledge					83	17
		SA^1	A^2	N^3	D^4	SD^5	Score
Perception	My farm is experiencing drought	3	50	7	40	0	63**
	My farm has eroded	0	40	7	53	0	57*
	My farm has decreased Productivity	7	26	7	60	0	56*
	My economy was decreased	7	29	7	57	0	57*
	Mean Perception	4	36	7	53	0	58*

The government's role is crucial in the prevention of critical land	24	70	3	3	0	83***
Farmers involvement is very important in the prevention of critical land	34	63	3	0	0	84***
Mean Perception	29	67	3	1	0	84***

[1]Strongly Agree; [2]Agree; [3]Neutral; [4]Disagree; [5]Strongly Disagree
*Average; **Good; ***Very Good
Source: Primary Data, 2022.

The score calculation results are obtained using the Likert scale method (Ayal & Filho, 2017). Likert scale is used with a scale of 1 (strongly agree with the statement) and 5 (strongly disagree with the statement). High perception means that respondents have a good understanding of critical land and its impacts, apply it in the farming system and are willing to participate in protecting and conserving natural resources to maintain land productivity and are responsible for the erosion impacts that will occur. The average score of respondents' perceptions about efforts to overcome critical land is in the high category (Xue et al., 2019).

Medium perception means that the respondent lacks understanding of critical land and its impacts but has a willingness to prevent forest destruction and is willing to participate / strive to control damage to land resources that are owned (Pratiwi et al., 2020). The average score of respondents' perceptions about efforts to overcome critical land is in the medium category.

Low perception means that understanding of critical land and its impact is still limited. So that the difficulties in efforts to rehabilitate land (Oettle & Koelle, 2016; Resosudarmo et al., 2019). But agreed when action will be taken to prevent forest damage. Willing to participate in government programs, but still assume that land conservation is the duty of the government (Parven et al., 2022; Pratiwi et al., 2020).

3.2. DISCUSSION

The results of the recapitulation of the perceived value of each respondent are then categorized, where the highest score is 40 and the lowest score is 16. The results of the reduction between the highest and lowest scores are divided into three classes with their respective score ranges. Based on these calculations, the perception level categories were obtained as follows: high perception with a range of 32–40, moderate perception level with a range of 24–31 values, and low perception level with a value of 16–23. The results of the frequency analysis of respondents according to these categories are presented in Table 3.

Table 3. Percentage of Respondents by Category Perception Level
of Critical Land and Its Impact

Value Range	Category	Amount	%
32 – 40	High levels	15	50
24 – 31	Medium levels	9	30
16 – 23	Low levels	6	20

Source: Primary Data, 2022.

From Table 3, it can be seen that respondents who have a perception of the high category have a perception of 50%, the medium category is 30% and the perception of the low category is 20%. High perception means that respondents have a good understanding of critical land and its impacts (Parven et al., 2022), apply it in farming systems, are willing to participate in maintaining and conserving natural resources to maintain land productivity and are responsible for the impacts of critical land that will be generated. Nevertheless, government support is still urgently needed in efforts to improve land quality (Allen et al., 2020; Cowie et al., 2019).

Medium perception means that respondents do not understand critical land and its impacts but have the will to prevent land damage due to repeated use, so that land is potentially critical. and willing to participate in and strive to control damage to land resources in the vicinity.

Land perception means that understanding of land rehabilitation efforts is still limited, but agrees when land damage prevention measures will be taken and is willing to reprimand if someone takes land destruction actions that can cause ecological damage, economic losses, and social losses. Do not have a strong understanding of the importance of improving the quality of natural resources and assume that productive land, floods, and landslides are caused only by natural factor.

4. CONCLUSION

Based on the research that has been done, it can be concluded that the level of respondents' perceptions related to the understanding of critical land and its impact is obtained a moderate perception value of 58%. While the perception of the involvement of government and farmers obtained high perception that is equal to 84%.

Socialization measures are needed in order to direct the perception and participation of the farming community so that they holistically understand the meaning of land conservation through the land rehabilitation program. Socialization activities also need to consider the diversity of farmers' socioeconomic conditions, there needs to be a separate target group in order to realize the role of each individual or group.

In connection with the level of community perception and participation in land rehabilitation programs that are strongly influenced by the level of community education, it is necessary to strengthen the ability of the community through non-formal education approaches such as training, technical guidance, internships, and others.

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