The Effect Of Transfer Of Land Function On The Development Of Te Area Through Community Empowement

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Abstract. The purpose of this study was to analyze the effect of land use change on regional development in Deli Serdang Regency and to analyze the effect of land use change through community empowerment on regional development in Deli Serdang Regency. The research design used exploratory research and descriptive research. This research was conducted in the area of Deli Serdang Regency with boundaries on areas that have changed land functions. The research area includes 5 districts, namely Sunggal District, Namorambe District, Hamparan Perak District, Pancur Batu District and STM Hilir District. The design of this study is a study looking at independent variables that directly affect land use change and through community empowerment towards regional development. Data analysis with moderating analysis. Overall the results of data processing by conducting suitability tests and statistical tests. The result of this research is that land conversion has a significant positive effect on regional development in Deli Serdang Regency. Community empowerment can moderate the effect of land use change in a significant positive manner on regional development in Deli Serdang Regency.

1. Introduction

The development pattern with environmental development requires knowledge in the use of water and land, as well as other natural sources. Development contains elements of major change. Changes in economic structure, social, physical areas, consumption patterns, natural resources / environment, technology and changes in cultural values. Development opens the possibility of changing environmental conditions [1]. The approach which refers to sectoral and spatial aspects has encouraged the birth of the concept of regional development. [2] The change in land use has actually become the government's attention. In 2009, the government passed Law number 41 of 2009 concerning the protection of sustainable food agriculture land. [3] in the book on regional development and development, it is written that the increase in population is closely related to the dynamics of development which results in problems in control, use and utilization of land. Change of land function is an inevitable phenomenon in relation to the transformation process in allocating natural resources from one use to another. Land conversion occurs due to changes in land values. High prices cause land to tend to be used for productive activities. Therefore it is necessary to seek empowerment (empowerment) to increase the ability of human resources. There are several things that need to be considered in order to empower the community, namely that the development carried out by the community must be democratic, as well as develop a system of participation and provide wider autonomy. The empowerment paradigm wants to change by giving people the opportunity to plan and then implement development programs of their own choosing, including in the management of development funds both from the government and from other parties [4].
2. Problem Statement

The problem statement in this study is whether land use change has an effect on regional development in Deli Serdang Regency and whether land use change through community empowerment affects regional development in Deli Serdang Regency.

3. Research Objective

Based on the statement problem, it can be determined that the objectives of this study are to analyze the effect of land conversion on regional development in Deli Serdang Regency and to analyze the effect of land use change through community empowerment on regional development in Deli Serdang Regency.

4. Literature Review

According to [5] the efforts carried out in the framework of developing an area must be carried out in a comprehensive and integrated manner. Freadmann (1960), which emphasized more on the formation of hierarchies in order to facilitate the development of a development system, which became known as the growth center theory. The fifth is Douglass (in 1970) who introduced the birth of the rural-urban linkages model in regional development [6]. Furthermore, current regional development is a development concept that is very important for human life and community welfare. [7] Regional development is indispensable because the socio-economic, cultural and geographic conditions are very different from one region to another. Basically, regional development must be adjusted to the conditions, potentials and problems of the area concerned. [8] The government uses land as a place intended for the interests of the people. The interests of each of these different parties sometimes overlap to achieve their respective interests. However, more often than not, land used for agriculture can change functions to achieve other interests. [9] Transfer of land functions is a form and a logical consequence of the development of potential land rents in a location. Therefore, the process of land conversion can be seen as part of the shifts in the dynamics of resource allocation and distribution towards a new, more productive balance [10]. Environmental carrying capacity is the ability of the environment to support the lives of humans and other creatures [11]. When viewed from human resources (human capital) occupies a very important position and role in development. Not only as a manager and actor of development, but development itself must be able to benefit and improve human life and welfare. Human resources are a set of skills, knowledge, social and personality traits, including the creativity contained in humans that can be endeavored to carry out activities that can generate or provide economic benefits [12].

5. Methodology

This research was conducted in the area of Deli Serdang Regency with the boundaries of the area that has undergone a change in land use change. The sample used was 236 samples. In this study, data collection methods were used by means of surveys or direct observation to the research location. The definition of a survey is a certain condition that requires certainty of information, especially for people who are responsible or who are interested. Furthermore, this study uses a moderating analysis. The design of this study is to look at the independent variables that directly affect land use change and through community empowerment towards regional development in Deli Serdang Regency, North Sumatra Province. According to Hair et.al, (1998) some steps that must be taken in analyzing the moderating method are as follows:
6. Hypothesis Research

Based on the research conceptual framework the effect of land use change on regional development through the empowerment of human resources in Deli Serdang Regency. So the hypothesis of this study is as follows: There is a Positive Effect of Transfer of Land Functions on Regional Development in Deli Serdang Regency and there is a Positive Effect of Transfer of Land Functions through community empowerment has an effect on regional development in Deli Serdang Regency.

1. Testing the effect of X on Y
   \( H_0: \beta_1 Y = 0 \), The conversion of land functions has no effect on regional development.
   \( H_1: \beta_1 Y \neq 0 \), The conversion of land functions has an effect on regional development.

2. Testing the effect of X, W on Z
   \( H_0: \beta_1 YW = 0 \), The conversion of land functions has no effect on regional development through community empowerment
   \( H_1: \beta_1 YW \neq 0 \), Function transfer affects regional development through community empowerment.

Structural Equations
\[
Y = a + b_1X_1 + b_2X_2 + b_3 X_1X_2 + e
\]
\[
Y = f(\partial)
\]
\[
Z = f(\partial - Y)
\]
\[
Y = f(\partial + Z)
\]

The multiplication variable between X1 and X2 is also called a moderate variable because it illustrates the moderating effect of variable X2 on the relationship X1 and Y. While variables X1 and X2 are the direct effects of variables X1 and X2 on Y. X1X2 is considered a moderate variable because:

7. Result and Discussion
Evalusi Multikolinier

| Coefficientsa |
|---------------|
| Model Unstandardized Coefficients | Standardized Coefficients | t | Sig. | Collinearity Statistics |
| B | Std. Error | Beta | Tolerance | VIF |

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Figure 1. Analisis Moderating
Heteroscedasticity test using a scatterplot

Moderating Model Interpretation Results

| Model Summary | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---------------|-------|---|----------|-------------------|----------------------------|---------------|
| 1             | .187 | .035 | .028     | 4.53102           | .678                       |

a. Predictors: (Constant), Transfer of Land Functions
b. Dependent Variable: Area Development

| ANOVA | Model | Sum of Squares | Df | Mean Square | F   | Sig. |
|-------|-------|----------------|----|-------------|-----|------|
|       | Regression | 109.673 | 1 | 109.673 | 5.342 | .02  |
| 1     | Residual   | 3038.467 | 148 | 20.530 |     |      |
|       | Total      | 3148.140 | 149 |         |     |      |

a. Dependent Variable: Area Development
b. Predictors: (Constant), Transfer of Land Functions

| Model Summary | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---------------|-------|---|----------|-------------------|----------------------------|---------------|
| 1             | .992 | .985 | .985     | .57182            | 1.528                      |

a. Predictors: (Constant), Community development, Transfer of Land Functions, Moderating land use change and community empowerment
b. Dependent Variable: Area Development
### ANOVA\(^a\)

| Model         | Sum of Squares | df | Mean Square | F      | Sig. |
|---------------|----------------|----|-------------|--------|------|
| Regression    | 3100.400       | 3  | 1033.467    | 3160.608 | .000\(^b\) |
| 1 Residual    | 47.740         | 146| .327        |        |      |
| Total         | 3148.140       | 149|             |        |      |

\(^a\) Dependent Variable: Area Development  
\(^b\) Predictors: (Constant), Community Empowerment, Change of Land Function, Moderating of land use change and Community empowerment

### Model Summary\(^b\)

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------|----------|-------------------|---------------------------|---------------|
| 1     | .992\(^a\) | .985   | .985             | .57182             | 1.528         |

\(^a\) Predictors: (Constant), Community Empowerment, Change of Land Function, Moderating of land use change and Community empowerment  
\(^b\) Dependent Variable: Area Development

### ANOVA\(^a\)

| Model         | Sum of Squares | Df | Mean Square | F      | Sig. |
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Research findings on the effect of land use change on regional development through community empowerment in Deli Serdang Regency, among others:

1. The transfer of land functions has not been able to directly support regional development in Deli Serdang Regency.
2. The conversion of land functions that occurs by involving the community through community empowerment programs is able to support regional development in Deli Serdang Regency.
3. Community empowerment programs are able to moderate (strengthen) the effect of land use change on regional development in Deli Serdang Regency.

Research on the effect of land use change on regional development through community empowerment in Deli Serdang Regency has found something new as a scientific contribution and can be applied to the development of the Deli Serdang Regency area. There are several steps that must be taken towards regional development in Deli Serdang Regency, including:
1. Activities of land conversion in Deli Serdang Regency occurred due to increased education, increased income and migration

2. Land conversion activities do not automatically lead to regional development in Deli Serdang Regency, this can happen if land conversion is used to improve people's lives such as higher education levels, higher income and migration occurs because of the desire to improve standard of living.

3. The conversion of land functions is capable of realizing regional development if it is balanced with community empowerment. So that land conversion is able to realize regional development so as to improve community welfare. In simple terms, it can be described as the following chart:

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