

## Research Paper

# Identification of Promoters and Deterrents Factors of Agricultural Land Consolidation Plan (A Case Study: Wheat Growers of Shoush County, Iran)

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## ABSTRACT

The implementation of land consolidation plan with the aim of integrating the dispersed parcels of smallholder farmers and minimizing their number has a long history, but the adoption of the implementation of this plan by the farmers community is affected by various factors that must be addressed in the implementation of the LC plan to be placed. The purpose of this research is to identify the factors affecting the adoption of LC plan in order to provide suitable solutions for the implementation of this plan. The statistical population of this research was wheat growers of Shoosh county of Khuzestan province (N=2000). The sample size was estimated 322 people by using Krejsi-Morgan table. They were selected by simple random sampling among farmers in rural areas of *Shoush*. The research instrument was a questionnaire whose validity was reviewed and corrected by using a group of academic researchers and experts in the area of land management. The logit model was used to estimate the effect of different variables on the adoption of the LC plan. The results of this study showed that income variables such as the ownership of agricultural machinery, non-agricultural occupation, distance between parcels, educational level, participation in extension classes and having knowledge about the benefits of the LC plan have a positive and significant effect on the adoption of LC plan. Variables such as farmers' experience, number of components, the amount of loans received and the number of household members have a negative effect on adopting LC plan. The results of the ADOPT model showed that 9.3 years are needed to consolidate the Shooshtar county by 98 percent of the farmers. In the first five years of the plan, 66.2 percent of the farmers will accept the plan in Shushtar. It should be noted that we need four years to make 50% of the farmers adopt LC plan.

### Key words:

Fragmentation, Land Dispersion, Land Consolidation, Land Reallocation, Logit Analysis

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## Extended Abstract

### 1. Introduction

O

ne of the disadvantages caused by the loss of mankind in the system of the na-

ture of agriculture for the desires of his desires is the wisdom and dispersion of agricultural land, which may have been at the beginning of the line with human desires, but the passage of time has had bad effects. This phenomenon has been confirmed. Such an arrangement of lands with a

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large number of fragments, with an irregular shape and a small size in the agricultural production system may even be an opportunity and an effective factor in the formation of the positive functions of the traditional system. However, in the formation of modern agricultural production systems and the application of technology and the mechanization of various stages of the agricultural production process, the microplate and irregular dispersion of components was considered as a deterrent factor that resulted in reduced productivity and increased production costs. Given the above issues, in order to make a majority of existing capacities and facilities, it is necessary that, as far as possible, farmers' lands be integrated in one place and the pieces be geometrically in line with the available irrigation and drainage networks. It is being constructed, designed, and constructed with essential infrastructure operations at the level of the targeted farms. Thus, land consolidation can be said to be the first technical and social action in the agricultural infrastructure to control and manage the phenomenon of microcosm and dispersion of the land. Land consolidation projects, which include both government and non-governmental sectors, often relate to the rehabilitation and rehabilitation of land, irrigation, drainage and reconstruction of communication roads that run on a wide range and have profound effects on systems economic, social and environmental agriculture.

## 2. Methodology

The purpose of this research is non-experimental in terms of controlling variables, and in terms of data analysis, descriptive-correlational research has been done by survey method. The statistical population of this research is wheat cultivar of *Shoush* county in Khuzestan province (N=2000). The sample size was estimated to be 322 people by the Krejsi-Morgan table. The sample was randomly selected from among the farmers of the villages of this city and completed to the questionnaire by interview. The research instrument was a questionnaire consisting of four sections of individual, social and economic information as well as information on agricultural lands. The research questionnaire in the independent variables is applied to consider the adoption of the land consolidation plan included the level of education, work experience, participation in educational and extension classes, work experience, the amount of loans received, having a non-agricultural occupation, awareness of ratio, the design, the number and size of parts, the ownership of agricultural machinery, the amount of income and the distance between parts. Validity of the questionnaire was reviewed using a group of academic researchers and experts in the field of agricultural land management. The

reliability of the questionnaire was calculated by measuring the Cronbach's alpha value of 0.75. The logit model was used to estimate the effect of variables. SPSS<sub>23</sub> and Excell<sub>2013</sub> software were used to process data. Considering that the purpose of this research was to identify the factors influencing the acceptance or non-acceptance of land consolidation plan among wheat farmers in *Shoush*, the dependent variable in this research has a dual choice that requires a qualitative selection model; therefore, for qualitative selective methods Logit method was used.

## 3. Results

Based on the results of the research, 98 wheat farmers, about 30.43% of the population were involved in the agricultural land consolidation plan, and 69.57% of the surveyed population, 224 people, were not satisfied with the plan. According to the above table, the average variables of work experience in agriculture, the average size of each piece, the number of parts and the number of households in non-respondents were higher than the respondents

## 4. Discussion

The average income and education are different between the land consolidation accepted and non-accepted farmers. Considering the theoretical foundations of the research, the effect of some of the individual, social and economic characteristics on the acceptance or non-acceptance of land consolidation in the wheat farmers of *Shoush* County was investigated in the framework of logit model.

## 5. Conclusion

Acquisition of numbers 53, 43 and 42 percent for the coefficients of the determination of Sterlla, Madala and McFadan indicate the proper power of the estimated model in explaining the difference between the two groups receiving and not accepting participation in the land consolidation plan among wheat farmers in *shoush* county.

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## Conflict of Interest

The authors declared no conflicts of interest