

## **A Preliminary Study for Design of Automatic Block Reallocation Algorithm with Genetic Algorithm Method in the Land Consolidation Projects**

**Authors :** Tayfun Çay, Yasar İnceyol, Abdurrahman Özbeyaz

**Abstract :** Land reallocation is one of the most important steps in land consolidation projects. Many different models were proposed for land reallocation in the literature such as Fuzzy Logic, block priority based land reallocation and Spatial Decision Support Systems. A model including four parts is considered for automatic block reallocation with genetic algorithm method in land consolidation projects. These stages are preparing data tables for a project land, determining conditions and constraints of land reallocation, designing command steps and logical flow chart of reallocation algorithm and finally writing program codes of Genetic Algorithm respectively. In this study, we designed the first three steps of the considered model comprising four steps.

**Keywords :** land consolidation, landholding, land reallocation, optimization, genetic algorithm

**Conference Title :** ICSAEF 2015 : International Conference on Sustainable Agriculture, Environment and Forestry

**Conference Location :** Paris, France

**Conference Dates :** August 27-28, 2015