Agriculture Land Suitability Evaluator (ALSE)

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### INTRODUCTION OF TECHNOLOGY

There is a pressing need to develop an optimal land evaluation method to identify in which part of a region selected crops could be grown successfully. It is very important to match the requirement of the landuse with the capability of land; otherwise we may push production to levels beyond the ability of land to support it. As complexity of decisions increases, manual processes become time consuming and are liable to errors, resource managers may increasingly lack the necessary expertise, and, therefore, capacity to make resource management decisions that integrates the range of issues involved. The FAO framework for land evaluation is only a set of guidelines and evaluators have to select land characteristics and qualities which differ from one environment to another. Therefore, computer systems used in different environments and different sets of data may not be used for other sets of data and conditions. Furthermore it available to limited number of crops.

### INVENTION

Agriculture Land Suitability Evaluator (ALSE) is a decision support system that allows the user to identify the suitable area for different crops. It accepts unlimited numbers of crops and allows the user to introduce his new crops considering the particular environmental conditions. The sensitivity analyses and variation of function were used to determine the level of important for each criterion in order to reduce the subjectivity in weights. The ALSE give reliable result to the farmer and indicate the limitation factors.

### ADVANTAGES

- Easy use Interface
- Evaluation system for any piece of land to be evaluated for any kind of cultivation.
- It gives best suitability classification considering wide range of multi-disciplinary alternatives.
- It identifies land limitation and offers possible land management measures.
- The present invention introduced a new method to assign weight value for each criterion without asking expert opinion

### MARKET POTENTIAL

**Consumer/End User**
- Farmers, Land Planners, GIS companies

**Industry**
- Agricultural and Environmental
- Agricultural Engineering and land management

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