Title: Improving farm productivity by matching crop varieties with soils and climate

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Description of project

The project activity intends to develop site specific recommendations with respect to released and pre-released crop varieties that have been developed for semi-arid areas. A Geographic Information System (GIS) will be used to match the suitability for major food crops based on the biological requirements of a crop and the quality and characteristics of land within semi-arid eastern Kenya. The methodology to be adopted combines land quality attributes that most influence crop suitability, including climatic data (long term mean annual rainfall and temperature) and soil data. The suitability assessment for each crop will be carried out using the method as described in FAO guidelines for land evaluation for rain-fed agriculture. For each crop, land unit will be created from overlay process of the defined theme layers or land qualities on which the suitability is based. The evaluation will be based on interpretation of climate and soil physical and chemical data.

Project Purpose

To develop a system that will give site specific recommendations with respect to suitability of pre-released and released crop varieties for the semi-arid eastern Kenya.