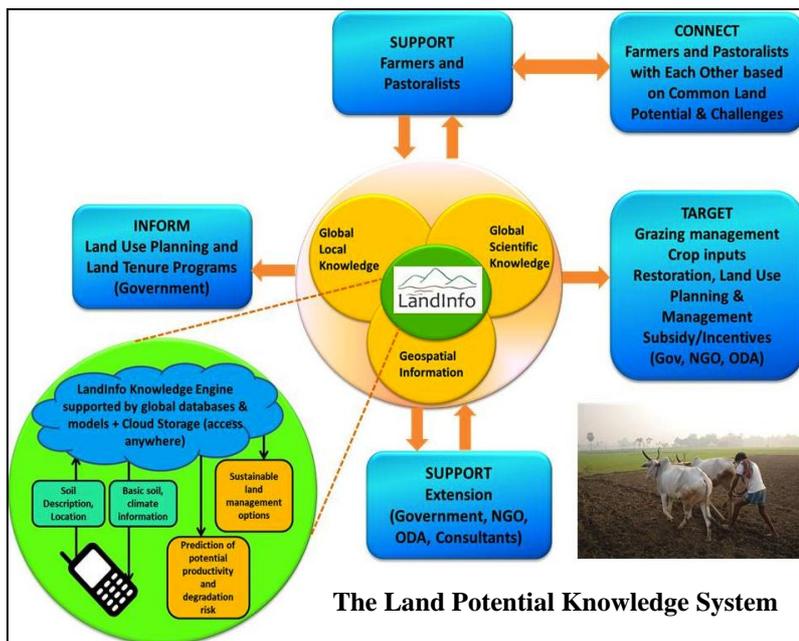


## Improving Agricultural Productivity and Climate Change Resilience Using the *LandInfo* Mobile App Technology

**Rationale:** The *LandInfo* mobile app is predicated on the lack of easily accessible, timely and accurate climatic and soil information to inform farm decision-making on production and management at site-specific locations. Besides, the failure of soil maps and other remote-sensing estimates to characterize soils at finer scales begs for suitable technologies that can produce better results. African farming system is characterized by inadequate extension agents to provide advisory services to farmers (1:2500 in Africa and 1:400 in Europe) and hence new technologies that could complement the services of the extension agents to farmers will go a long way in improving agricultural productivity. These are the reasons why *LandInfo* was developed. It is the first of its kind in providing accurate soil and climatic information at site-specific locations and can be used anywhere. With improved mobile phone access and internet penetration in Africa, *LandInfo* is surely a one stop shop for supporting farmers' decision-making in agriculture.



**Description:** The *LandInfo* app is a community-driven app that enables users to instantaneously access climatic and soil information and interpret them in the context of local conditions and values, including crop preferences. Users are able to target investments on land for specific purposes such as specific crop choices for specific soils. With knowledge on annual average rainfall and temperature, aridity index, soil types, among others, farmers are able to plan their farming enterprises adequately to avoid losses due to climate variability and hence improve agricultural productivity and climate change resilience.



**Target Beneficiaries of LandInfo:** Farmers, farmer associations, extension agents, agripreneurs, land-use planners, land investors, and policymakers.

### **LandInfo field example:**

- User wants to select a site with the highest potential to support a specific crop production
- Phone identifies GPS location
- User enters point-specific data on soil characteristics, land use, and topography; phone automatically uploads to the "cloud"
- User data integrated with global and local soil and climate databases
- Relevant climatic information including rainfall and temperature distribution, estimates on soil water storage, aridity index, average annual rainfall amounts, the growing season length, and the soil type uploaded to the phone almost instantaneously
- User selects appropriate soils for specific crops for production using our soil-crop suitability matrix or advisory from extension agents

### **Key Outcomes**

- Farmers obtain the highest crop yields from any soils based on their access to accurate soil and climatic information which is provided by the *LandInfo* mobile app in-situ
- Increased yield means more income for the farmers



### **Request for Supports and Collaboration**

The ATPS solicit for supports and collaboration from development partners and donors to enable us upscale and out scale the *LandInfo* mobile app technology across Africa through 1) awareness creation, 2) capacity building/training of farmers and extension agents on how to use *LandInfo* and 3) policy advocacy to mainstream *LandInfo* into other agricultural development initiatives.

**LandInfo is a Winner of the coveted Climate Information Prize 2016 in Kenya and has been selected among the Technologies for African Agricultural Transformation (TAAT) by the African Development Bank (AfDB)**

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