Digital Green

Creating a world where farmers use technology and data to build prosperous communities

INTRODUCTION

Digital Green is a global development organization focused on creating a world where farmers use technology and data to build prosperous communities. One of our key initiatives is the development of FarmStack[1] - a set of open source software tools which enable the secure exchange of data across the agricultural ecosystem.

In Kenya we are partnering with KALRO to set up a FarmStack data sharing network in order to facilitate data sharing across the Kenyan food and agricultural space. We're currently working with KALRO to scope "use cases" for FarmStack which can demonstrate the value of data integration and showcase how partners can collaborate to improve their services.

USE CASE CONCEPT

In collaboration with the World Bank's Digital Agriculture Team, KALRO currently provides SMS based weather and market advisory services to about 1,200 farmers in Kenya. The main barrier to scaling this service is access to additional high quality farmer profiles which contain location, contact, and crop information. We have identified this as a good opportunity to showcase the power of data sharing across partner organizations in order to scale up advisory services.

Target outcome	KALRO provides SMS based advisory services(weather, market,subsidy), tailored to farmer locations and crop mix, to 4 million farmers in Kenya.
Design criteria	• Data providers are able to impose usage restrictions on the data they share with KALRO • SMS based advisory must be tailored based on at least one attribute at the farmer level

Solution sketch:

1. **Enable data sharing:** Identify and onboard partners to the KALRO FarmStack network, install secure connectors on their existing databases, define any specific usage policies required for the data
2. **Share key attribute data:** Partners share farmer names, locations, phone numbers, and main crop
3. **Tailor advisory content:** KALRO will analyze the shared data and produce tailored advisory content
4. **Schedule and send messages:** KALRO will inform the partner organizations which content will be sent to their farmers and when, then will send the messages and share summary recipient data back

Value Proposition:

Note that the solution sketch above will evolve as partner conversations kick off. There will likely be additional ideas that are brought in by partner organizations which can add additional value to the use case proposition.

Partner Organizations	KALRO	Digital Green

[1] For a more complete overview of FarmStack and a user interface demonstration, please watch this short video (intro through minute 7, demo through minute 13)

Avail weather, market, and subsidy advisory for their farmers; onboard into the FarmStack data sharing network	Showcase highly scalable and tailored content delivery capability	Produce a showcase use case which can demonstrate the value of FarmStack

Cost Implications:

FarmStack software is open source and free, so there is no license or subscription fee associated with using it. Digital Green is funding the initial configuration and installation of the FarmStack steward software with KALRO. The costs to partners associated with the implementation of this use case would likely be entirely staff time. We estimate roughly 3 full time days of coordination with program staff and developer time to set up the FarmStack connectors and develop usage policies. The KALRO FarmStack team, with support from Digital Green, will provide close coordination and facilitation of this process for each partner.

HIGH LEVEL NEXT STEPS:

Digital Green and KALRO are now engaging with potential partner organizations to gauge their interest in participating in this proof of concept use case.