Enhancing Resilience and Adaptive Agricultural Livelihoods in Uganda/Shade Tree Advice Tool

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Summary

The Shade Tree Advice Smartphone Tool is an ICT solution to advice Coffee and Cocoa Framers on shade tree selection

Technical Description

The Shade Tree Advice Tool is based on expert and local farmers' local knowledge of trees in different agro-ecological zones. Through farmer interviews (a minimum of 100 per site) researchers ranked different tree species based on locally perceived key ecosystem services such as the benefits of shade for coffee, timber and fuel wood. The tool was subsequently populated with the trees ranked according to the ecosystem service priorities. The Shade Tree Advice Smartphone tool is designed for Android phones. The tool is designed to offer information accessible to users both online and off-line. The pre-loaded locally specific content gives the user access to best shade tree information. The architecture allows for fast data transfers and maximizes real-time data synchronization between web and mobile devices. The simplicity of the architecture allows for cost effective adaptation and scalability of the application.

Uses

The tool offers smallholder coffee farmers advice on optimal shade tree selection in coffee and cocoa agroforestry systems. The tool provides site-specific recommendations on appropriate tree species via simple graphical displays. The information is targeted towards extension workers and commercial farmers and other decision makers directly involved in sustainable coffee and cocoa agroforestry systems and adaptation to climate change.

Composition

The Smartphone Application has been populated with data from existing coffee research sites in Uganda in Sironko and Luweero.

Means of application

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Agroecologies	All Agroecologies, Highlands.
Regions	East Africa.
Developed in Countries	Uganda.
Available in	Uganda.
Solution Forms	Digital Application.
Solution Applications	Improved variety, Soil fertility management, Insect control, Disease control, Weed control.
Agricultural Commodities	Other tree crop.
Target Beneficiaries	Small-scale farmers, Commercial farmers, Other beneficiaries.

Commercialization

Commercialization Category

Management technology with limited commercial potential

Startup Requirements

Local knowledge of tree species

Production Costs

Not available

Customer Segmentation

Small holder coffee farmers reached by extension workers.

Potential Profitability

Not available

Licensing Requirements

None

Innovation as Public Good

public good

Solution Images

Shade Tree Advice Tool

Albizia coriaria

Spathodea campanulata



Names

Name English: Tulip tree

Name Luganda: Kifabakazi

Growth

size: Large

growth rate: Moderate

years to mature:

grows in sun: Yes

grows in shade: Yes

grows in any soil: Yes



Shade Tree Advice Tool







Institutions

Accompanying Solutions

Stepwise Approach