

# 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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<b>Agroecologies</b>	All Agroecologies, Highlands.
<b>Regions</b>	East Africa.
<b>Developed in Countries</b>	Uganda.
<b>Available in</b>	Uganda.
<b>Solution Forms</b>	Digital Application.
<b>Solution Applications</b>	Improved variety, Soil fertility management, Insect control, Disease control, Weed control.
<b>Agricultural Commodities</b>	Other tree crop.
<b>Target Beneficiaries</b>	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

About STAT

1

Rank shade  
trees

Tree library

# Institutions



# Accompanying Solutions

Stepwise Approach