

15th ACA Annual Cashew Conference



A SUSTAINABLE CASHEW SUPPLY CHAIN FOR THE FUTURE



Fully Online



15-17 September
2021

Seth Ogoe Ayim,
PMP

Digital Solutions for the Cashew Industry

BeninCajù
Better cashew. Better lives.

 **TechnoServe**
Business Solutions to Poverty®

Agenda

- Why Digital Solutions
- The Vision
- Solutions
- Implementation Challenges
- Sustainability



Challenge: Lack of Data

- Long-standing difficulty getting accurate, timely data for trade and investment decisions (Benin)
- Market data on production, demand, and quality is a critical input for the nut and dried fruit industry.



TechnoServe Understands the Cashew Industry

- 20+ years of experience
- We've seen that data on:
 - The number of farmers
 - Production area
 - Productivity
- Are simply unavailable or are speculative estimates
- Lack of standardize Online Training



The Vision



The Vision

- Practical technology & innovation for the cashew Industry
- Scalable reach and effectiveness enabled by digitization
- Sustainable solutions



The Current Initiatives of BeninCajù Labs



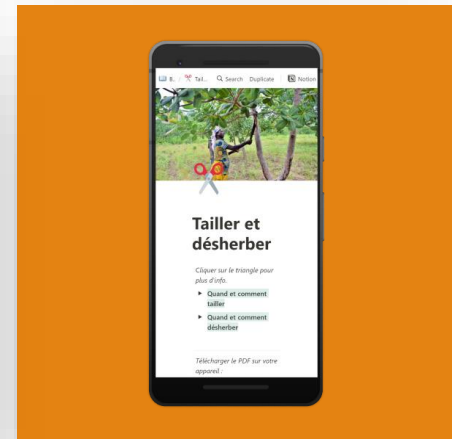
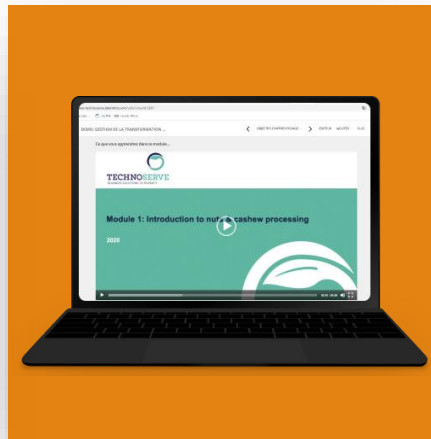
**Drone
mapping**
for climate-smart
agriculture



MOCC
for processors &
investors



Chatbot
Digital Field Manual



Our Initiatives In Detail



Drone-Assisted Land Mapping for Climate-Smart Ag

CSA action plan & training

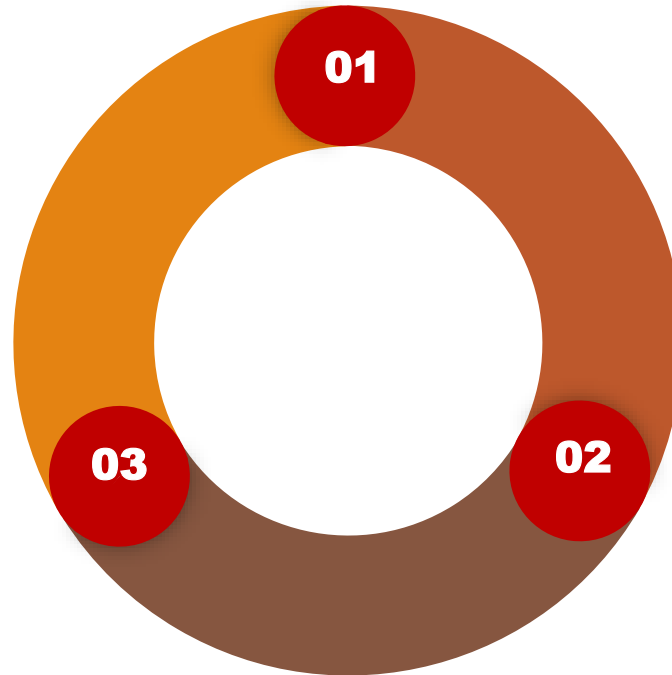
1. Policy recommendations
2. Stakeholder tech trainings
3. CSA farmer training

Nationwide cashew mapping

Leveraging satellite and machine learning technologies to identify cashew plantations across Benin

Farm-level drone analysis

Collection of drone imagery for the analysis of current agricultural practices.



600.000 ha

of agricultural land under
cashew cultivation

A Multi-Stakeholder Approach to Deploying a Novel Technology Solution



Drone data
collection



Ground &
yield data



Algorithms &
data analysis

Action plan, CSA training & capacity building
(Government, cashew producer federations,
Enabel Benin)



Increased
yields



Sustainable
production



Increased
commerce



What Have We Achieved So Far?

- **1.900 plantations mapped**
across 5 departments,
17 communes
- **2.5 million drone images**
with 180k trees **largest tree crop data set for Africa**
- **Collines map: 240.000 ha cashew**
First of its kind, with
estimated accuracy of 80%



MOOC—Massive Open Online Course

← → ↻ cashew-technoserve.talentlms.com/learner/courseinfo/id:171

Apps TechnoServe Labs myTNS QZ Quartz Africa

TechnoServe Business Solutions to Poverty

10 POINTS MGOEBL | APPRENTANT MESSAGES AIDE Rechercher

Accueil / DEMO: GESTION DE LA TRANSFORMATION DU CAJOU DE TECHNOSERVE



Reprendre le cours

DEMO: GESTION DE LA TRANSFORMATION DU CAJOU DE TECHNOSERVE

24%

Bienvenue au cours de Gestion de la transformation du cajou de TechnoServe !

TechnoServe est un leader dans l'exploitation du pouvoir du secteur privé pour aider les gens à sortir de la pauvreté. C'est une organisation à but non lucratif opérant dans 29 pays et travaillant pour construire des fermes, des entreprises et des industries compétitives. En reliant les acteurs à l'information, aux capitaux et aux marchés, TechnoServe a aidé des millions de personnes à créer une prospérité durable pour leurs familles et leurs communautés.

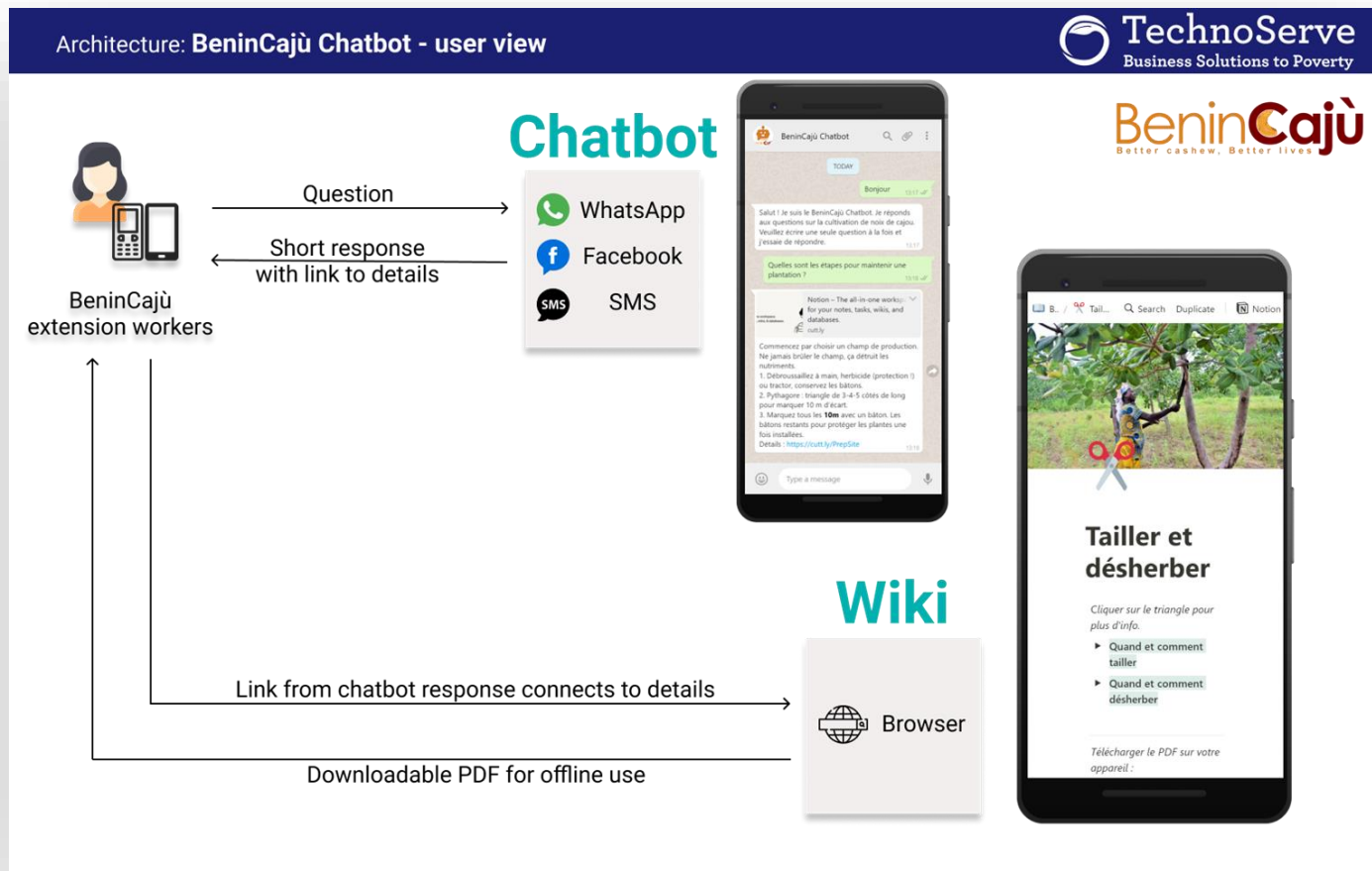
Aujourd'hui, TechnoServe est présente pour vous accompagner dans la mise en place d'une production d'anacarde réussie. Vous découvrirez les opportunités du marché de la noix de cajou et vous serez guidés à travers les défis de la gestion d'une usine de transformation de noix de cajou rentable. Mais pour cela, nous aurons également besoin de vous. Notre cours sera hautement interactif et couvrira des quiz sur l'efficacité commerciale, un travail de groupe sur l'acquisition d'équipement optimal et de nombreuses opportunités de coaching individuel.

Alors allons-y, c'est parti!





WhatsApp & SMS Chatbot with Online & Offline Wiki for Extension Agents



Implementation Challenges

- Mapping farms
- Right level of intervention yet to be tested (GoB vs. cooperatives)
- User need for chatbot not fully confirmed
- Respond to data privacy concerns



TechnoServe Is Working to Ensure the Sustainability of the Program

Collaborative Capacity Building

- Trained over 34 ATDA4 technicians, in partnership with the Ministry of Agriculture
- Scheduled workshops to receive key feedback

Funding

- Fully funded tool development
- Donated about 25+ smartphones and over 30 KOR kits to ATDA4 facilitate work in the field

Government and Industry Partnerships

- Coordinating with GoB for approval and validation of digital tools
- Working with ACA to develop joint certification standards

Working with Universities to Build an Agritech Ecosystem

- Developing courses and research agendas, working with Benin University professors and doctoral students
- Focus on improving the understanding of national cashew cultivation - yields and GAP



Next steps

- Pilot testing
 - get user feedback during the 2022 harvest
- Complete work on the geospatial dashboard
 - Integrate additional data layers with training, nursery data
 - Validate machine learning cashew plantation predictions
- Get consensus on training content
 - Formation des transformateurs
 - Matériel BPA pour les producteurs





Thank you

Seth Ogoe Ayim, PMP

sayim@tns.org

technoserve.org

