Leveraging Digital Solutions to Help Scale Up the Agricultural Transition

WEBINAR, 28TH FEBRUARY 2023
Leveraging Digital Solutions to Help Scale Up the Agricultural Transition

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28 February 2023 | 5pm (CET) | 11am (ET) | 8am (PT)

With insights from expert panelists

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FOUNDER & CEO, PALO IT

BENJAMIN ADDOM, PhD
ADVISER, AGRICULTURE & FISHERIES TRADE POLICY (DIGITAL), THE COMMONWEALTH

CLAIRE RHODES
CEO, PRODUCERS DIRECT

CHRISTIAN CHATEAUVIEUX
DIRECTOR, DIGITAL SOLUTIONS, KSAPA

ksapa.org
Introducing Ksapa

Ksapa is a mission-driven organization
Our purpose is to act as catalyst
and convener for an economy-wide shift toward economically, socially and environmentally-sound operating and investment models

Sustainability, Finance & Investment, Data, Digital Solutions, Agronomy & Development expertise all aggregated at core team level
Trusted by a broad range of clients to deliver impact

Financial services

Corporate sector

Public sector

Academia
Agriculture represents 4% of global GDP or $4.5 trillion. It employs more than 25% of the global workforce. 608 million smallholders produce about 1/3 of the world's food. Some 65% of poor working adults make a living through agriculture.

Source: WEF, 2023
The business case for a regenerative agriculture transition

Business Case to Accelerate Regenerative Transition at 1st Mile

- Growing social inequalities
- Low Attractiveness of Agriculture
- Livelihoods, ageing rural populations, gender exclusion
- Sufficient Food Production Without Deforestation
- Soils Exhaustion & Low CC Resilience
- 19-29% of total GHG emissions (World Bank)

- Growing social inequalities
- Soils Exhaustion & Low CC Resilience
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Driving change in fragmented value chains through three complementary levers

1. Programme design & management*
2. Digital solutions
3. Innovative impact-linked finance

* Sometimes referred to as Technical Assistance or TA
"Mobile communications can help to meet the challenge of feeding an estimated 9.2 billion people by 2050. The 12 specific opportunities explored in this study could increase agricultural income by around US$138 billion across 26 of Vodafone’s markets in 2020."

Source: Connected Agriculture: The role of mobile in driving efficiency and sustainability in the food and agriculture value chain, 2011
Are we there yet?

**Figure 2** Between 702 and 828 million people in the world faced hunger in 2021. Considering the middle of the projected range (768 million), hunger affected 46 million more people in 2021 compared to 2020, and a total of 150 million more people since 2019, before the COVID-19 pandemic.

Source: THE STATE OF FOOD SECURITY AND NUTRITION IN THE WORLD, FAO, 2022
Will the rapid proliferation of regulatory frameworks accelerate change?
Introducing our Panel

- **Benjamin Kwasi Addom, PhD**, Adviser, Agriculture & Fisheries Trade Policy (Digital), The Commonwealth
- **Claire Rhodes**, CEO, Producers Direct
- **Stanislas Bocquet**, Founder & CEO, Palo IT
- **Christian Chateauvieux**, Director, Digital Solutions, Ksapa
Digital Agriculture Workstream at Commonwealth Secretariat

1. Framing Digital Agriculture

Digital Agriculture Framework

MACRO-LEVEL IMPACTS
Sustainable food & nutrition security
Inclusive growth

AGRICULTURAL TRANSFORMATION
Climate resilience
Higher yields
Higher incomes
Financial inclusion
Inclusion of women
Youth employment

SMALLHOLDER FARMER-LEVEL IMPACTS

2. DPI for Agricultural Data Management at national level

National Agricultural Data Infrastructure (AgDI) - DPI

1. Technology/Data System
Interoperable Technological System for Agricultural Data Management

The New National Resource - Agricultural Data
User Data
(Data on the Entities) E.g.
Farmer profiles, agribusiness profiles, etc.
- the unique identifiers of the entities

Content Data
(The substance for the Entities) E.g.
Production, agronomic, climate/weather, financial, soil, market, research, EO, etc.

Data Management Processes
Curate: Aggregate > Process > Analyse > Exchange (Value Addition)

Business Model for Financing and Investment

2. Social/Principles

3. Governance/Administration

Independent Data Trustee/Custodian/Steward (A Multi-stakeholder Entity)

Pioneering a unique farmer-led model to improve smallholder livelihoods.
Palo IT, Crafting Tech as a Force for Good
Global Innovation Consultancy & Agile Software Development Company

- Australia: Sydney, Brisbane, Melbourne
- France: Paris, Nantes, Toulouse, Lyon, Bordeaux
- Thailand: Bangkok
- Singapore
- Mexico: Mexico City
- Colombia: Bogotá, Medellín
- USA: New York City, Miami
- Spain: Barcelona, Madrid
- Hong Kong
- France: Paris, Nantes, Toulouse, Lyon, Bordeaux
- Australia: Sydney, Brisbane, Melbourne
- Singapore
Introducing the SUTTI Solution
(Scale-up Training, Traceability and Impact)

Scalefully disseminate best practices and diversify farmer activities to build sound, fair, diversified, resilient cultures

Structurally improve the revenue and livelihood of smallholders in fragmented agricultural supply chains

Boost impact across the value chain for the benefit of the many, for the long run
6 economic levers for the program to significantly increase smallholder income

Estimation based on the example of a 2ha rice plot

<table>
<thead>
<tr>
<th>Income Increase</th>
<th>Costs Decrease</th>
<th>Income Diversification</th>
<th>Circularity</th>
<th>Carbon Valuation</th>
<th>Industrial Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield Increase</td>
<td>+10% /year</td>
<td>+10% revenue /year</td>
<td>+3% revenue /year within 3 years</td>
<td>+4% revenue within 3 years</td>
<td>+3% revenue within 3 years</td>
</tr>
<tr>
<td>- 15% /year</td>
<td></td>
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</tbody>
</table>

Current Income

Poverty Zone

Decent living income
Deep dive into the SUTTI digital suite

**Participant App**
For Smallholders

- E-Learning
- Impact Measurement
- Crop Sales Tracing

**Back-office**
For Delivery Teams

- Price, weather, events alerts
- Chat
- Geolocation & Geo plotting

**Reporting Dashboard**
For Sponsors

- Impact KPIs
- Program Monitoring
- Commodity sourcing map

Deep dive into the SUTTI digital suite
SUTTI Participant App Low-Tech Innovation!

- **Easy to access:**
  - No need for an email nor an AppStore Account! One-click web access link.
  - Accessible
    - Language support, Voice-synthesis
  - Digitally-unsavvy user friendly
    - Sleek, simplified, intuitive UIs
  - Low-end device friendly (cheap smartphones ($30+) and feature phones ($10+) with small screens, non-touch screens, low memory etc.)
  - Backwards-compatible with obsolete devices:
    - Android 5 (thru latest v12), iOS 12.x (thru latest v15.5), KaiOS v1.0 (thru latest v3)

- **Off-road ready:**
  - tested for low-speed, high-latency and transient networks
  - Offline-mode capable, with smart resynchronization
  - Low battery strain
Getting in touch

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