How to Make Agriculture Cool?
Creating Livelihoods and Rural Employment in Africa

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African Agriculture and Food: A Sector of Opportunity

US $313 billion in 2010

US $1 trillion in 2030

African food sector can become an engine for jobs and enterprise
Youth Bulge in Africa

364 million Africans between the ages of 15-35
10-12 million new young workers seek employment every year
60% of Africa’s unemployed are young adults, this proportion is growing
Average age of farmers in Africa

60
“Africa has 65% of all the arable land left in the world to meet the food needs of 9 billion people on the planet by 2050.” – Akinwumi Adesina, AfDB President

BUT

Africa had an estimated net food import bill of US $35.4 billion in 2015
Climate Change Vulnerability

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<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Category</th>
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<tbody>
<tr>
<td>1</td>
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<td>3</td>
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<td>5</td>
<td>Chad</td>
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<td>7</td>
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Legend:
- **Red**: Extreme Risk
- **Orange**: High Risk
- **Yellow**: Medium Risk
- **Light Green**: Low Risk
- **No data**: No data

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Food security

Maplecroft's Food Security Risk Index 2013

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<tr>
<th>Rank</th>
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<td>10</td>
<td>Comoros</td>
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</tbody>
</table>

Legend:
- Extreme risk
- High risk
- Medium risk
- Low risk
- No Data
Diversification in African Agriculture: Engine for Jobs and Entrepreneurship

Cereal 163 mill tones

Vegetables 70 mill tones

Roots and tubers 258 mill tones

Fish 7 mill tones

Dairy 42 million tones

Fruits 88 mill tones (excluding melon)

Egg 2.7 mill tones

Meat 16 mill tones

Source: FAO 2013 (data year 2011)
Diversification in Agriculture Value Chain

Commercial millers and food processors

Packagers of produce for National and international markets

Wholesalers, aggregating produce from a number of small-scale farmers

Transport providers

Farm equipment and fuel suppliers
## Farmers participating in value chain

<table>
<thead>
<tr>
<th>Countries</th>
<th>% of farmers participating in value chain</th>
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<tbody>
<tr>
<td>Kenya</td>
<td>2.30</td>
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<td>Mozambique</td>
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<td>Rwanda</td>
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<td>Tanzania</td>
<td>0.02</td>
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<td>Uganda</td>
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<td>South Africa</td>
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</table>
Approaches for Creating Livelihoods and Employment
Sustainable creation of Jobs: Pathways to consider

Through informal and Formal SMEs

Through Social Enterprises

Through Skills and Agropreneurs (focus on Youth)

Through Aggregation
Employment through informal and Formal SMEs
Floriculture Clusters in Kenya
500,000 Kenyans depend on the Floriculture industry

90,000 of whom are Flower-farm employees

Kenya exported 125,000 tones of flowers in 2013

507 million

Agriculture sector contributes 25% of Kenya GDP
Ethiopia is the second largest flower producer in Africa next to Kenya

Revenue **213 million USD** 80% of the total foreign revenue earning,

Production of **50,000 tones**

Over **180 thousand** employment

85% are women

Annual income **$350-950/employee**

Export to Italy, France, Germany, Middle East, Korea, Japan, Russia, Cameroon, Nigeria and South Africa
Employment through Social Enterprises
Uberizing Mechanization: Hello Tractor

Problem:
Very low mechanization of Agriculture in Africa

Solution:
Tractor has been reconfigured using ICT, GIS and other innovations thus Uberizing many aspects of mechanization.

Customized mechanization services can be delivered at the doorstep of small holders using a technology platform.

Impact:
65% increase in mechanization
Results in a 200% increase in farmers’ yields.
Tractor owners as service providers get a $75/daily fee.

300 individual owners
22,500 farmer beneficiaries
Work in Kenya and Nigeria
Digital Green: Digital extension of Agricultural best practices

**Problem:**
Agriculture extension delivery not available in timely manner at doorstep.

**Solution:**
Rural library of digital videos providing decentralized and localized agriculture solutions to farmers through digital pico-projector.

**Impact:**
Ethiopia, Ghana, Malawi and Niger 1.2 million farmers viewed

The approach was found to be **10 times more cost-effective** and uptake of new practices **3 times higher** compared to traditional extension services.
iCow: Mobile-based information delivery system for small-scale dairy farmers

**Problem:**
Small farmers lack timely access to good quality and verified agricultural content.

**Solution:**
A text message and voice-based mobile phone application for small-scale dairy farmers in Kenya. Designed to support them with livestock and crop production and connect farmers to the vital players in their agricultural ecosystem.

**Impact:**
Ethiopia, Kenya, Tanzania 600k farmers. Increased incomes due to increased milk yield ranging from 1.5 to 3 liters per lactating animal.
Employment through Skills and Agropreneurs (focus on Youth)
Fresh Direct Nigeria: Hydroponics

Peri-urban fresh food production through stackable container farms enabling urban populations access high quality produce using hydroponics.

Angel Adelaja, Winner of World Economic Forum Africa’s female innovators of 2017
Employment through Aggregation
Ghana Pineapple Cooperative: Farmers’ owned Enterprise in Ghana td

Five pineapple cooperatives comprising 450 farmers

Members are able to consistently achieve yields of 65% or more from their fields, which guaranteed profits of about $1,000 per acre.

80% of the shares of the company were acquired by five smallholder cooperatives