Understand, Design, Act: Climate-proof your supply chain

Module 1: Understand climate change

07. June 2018
Introduction

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Global Coffee Platform
Let’s discuss today

- Collective Action Network Climate Smart Agriculture
- Online learning series
- Understanding climate change
- Questions and answers
1. Click on “Raise Hand” button
   If you want to comment or ask questions

2. Use the Q&A box
   To place your questions and get feedback from the panelists

3. We will silence your mic
   To avoid undesired background noises. But you can always ask to speak!

4. Remember
   This session is being recorded for archive purposes
Get active in the Collective Action Network

Climate Smart Agriculture

The CSA enables:

- **Coffee farmers** to *adapt* and *build resilience* towards climate change and its consequences

- **Coffee sector partners** to formulate *concrete action* in building resilience towards climate change and its consequences for coffee
GCP partners in 2018

Alliance for Resilient Coffee

Climate Catalogue

www.allianceforresilientcoffee.org
Some of your thoughts on what to get out of the Learning Series

"Partnerships and practices to scale up CSA initiatives in coffee sector."

"Hear from other experts on cutting edge strategies, technical & financial models, and opportunities for collaboration."

"Improve my knowledge to share with stakeholders and get more information to support my point of view with them."

"A better understanding of what diverse possibilities there are to actively address this issue, and a functional network with whom climate change and its implications can be tackled."
"We will conduct scientific research trials to better define our possible contribution to adaptation."

"We consider it a significant risk. We address the risk through diversity of our supply base, funding for varietal R&D, and support for farmers to adopt climate-smart agricultural practices."

"Develop climate catalogue, partner with others to innovate and develop upscaling models."

"I believe climate risk is one of the most substantial elements facing the industry. Our organization currently has many direct relationships with producers in which we broadly discuss the threat, but I don’t believe we integrate climate discussion or solutions as much as we should."
Objectives of the Learning Series

- Understand climate change
- Plan, implement, and scale effective CSA
- Learn how to assess your supply chain risks
- Convey the value of investment in CSA

Align your actions
Join concrete action
Path to Collective Action

Understanding climate change

How is climate change affecting my supply chain?

How can I manage the effects climate change is having on my supply chain?

How can I scale up CSA?

How do I know my investment in CSA is working?

How can I convince my company and others to invest in CSA?

How can collaboration work? Bringing action to origin!

Modules

Introduction

Risk Profiles

Tools

Scale

Monitoring

Business Case

Collaboration

+ Climate Catalogue as resource
Path to Collective Action

- Introduction
- Risk Profiles
- Tools
- Scale
- Monitoring
- Business Case
- Collaboration

Collective action at origin!

Building Common Ground

- Understand
- Design
- Act

+ Climate Catalogue as resource

Honduras

Uganda
Opportunities in Honduras and Uganda

**Honduras**

- Platform Agenda

**Uganda**

- Climate Change Working Group

**Contribute to National Coffee Platform’s agenda**

**Multi-stakeholder collaboration**

**Learnings & results will be shared with the sector**

**Progress will be measured**
Katherine Selengia
Program Manager
Hanns R. Neumann Stiftung

Kealy Sloan
Project Manager
Sustainable Food Lab
THE FEED THE FUTURE ALLIANCE FOR RESILIENT COFFEE
**OUR GOAL**

Increase uptake of Climate Smart Agriculture by:

<table>
<thead>
<tr>
<th>Aligning</th>
<th>Aligning internally on what CSA is, from plot to policy, to provide unified, coherent guidance to the coffee sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating</td>
<td>Generating <strong>public goods</strong>, including knowledge products and tools like: Country climate risk profile, on-farm climate vulnerability survey, etc</td>
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<tr>
<td>Testing</td>
<td>Offering <strong>CSA piloting opportunities</strong> in Guatemala, Honduras and Uganda, with ways for different coffee sector actors to get involved</td>
</tr>
<tr>
<td>Sharing</td>
<td>Investigating and sharing innovative ways to mainstream and scale CSA within business as usual</td>
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</tbody>
</table>
CLIMATE SMART COFFEE
The world is warming.

The rate of global warming is uneven.

Global rainfall is increasing.

The world is experiencing more extreme weather.
<table>
<thead>
<tr>
<th><strong>Weather</strong></th>
<th>atmospheric conditions at a particular place (air temp/pressure, humidity, wind speed, cloudiness, precipitation)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Climate</strong></td>
<td>weather averaged over a long period of time (typically 30 years)</td>
</tr>
<tr>
<td><strong>Climate variability</strong></td>
<td>variations in the current state of the climate (the amount of rainfall received from year to year; includes droughts, floods, and conditions that result from El Niño and La Niña events)</td>
</tr>
<tr>
<td><strong>Climate change</strong></td>
<td>any significant change in climate that lasts for an extended period of time (typically decades) due to natural variability or human activity</td>
</tr>
</tbody>
</table>
Regional or local warming can be caused by a change in land use and can exacerbate local climate conditions and extremes.

Climate hazards potentially damaging weather events or phenomena (increasing temperatures, changes in rainfall patterns, more intense/frequent extreme storms, floods, wind, droughts)

Climate impact the effects of climate change in natural or human systems
CLIMATE RISKS TO COFFEE

Short-term shocks

- Warmer Temperatures
- Erratic Rainfall
- Increased frequency of pest and plant disease outbreaks
- Increased frequency, severity of El Niño/La Niña events
- Stronger Dry season

Long-term stressors
CLIMATE EFFECTS IN HONDURAS

Increase in adverse climatic events:
- storms
- irregular rainfall
- increasing temperature range
- drought
- high temperatures
- high winds

Impact on coffee production:
- more pests, disease and weeds
- post-harvest risks
- soil erosion
- irregular flowering

Coffee Suitability:
- 45% of area potentially suitable under current conditions may become unsuitable even with adaptation
- 20% will require substantial adaptation to improve resilience
- 35% will only require incremental adaptation to improve resilience
WHAT IS CLIMATE SMART AGRICULTURE?

(Productivity / Food Security) 

(Productivity: to increase agricultural productivity & incomes from crops, livestock and fish, without negatively impacting the environment.) 

(Arugmentation: to reduce exposure of farmers to short-term risks, while strengthening their resilience to adapt and prosper in the face of shocks and longer-term stresses.) 

(Mitigation: to reduce or remove greenhouse gases.)

Climate Smart Agriculture is “agriculture that sustainably increases productivity, enhances resilience (adaptation), reduces/removes GHGs (mitigation) where possible, and advances achievement of national food security and development goals” (FAO).
WHAT DOES CSA LOOK LIKE?

*Practices*… *…implemented on-farm* to adapt to current climate variability

*Strategies*… *…implemented on- and off-farm*, within the cooperative, community or supply chain, that adapt to current climate variability and prepare for long-term climate change

*Enablers*… *…supported by actors on- and off-farm* to establish conditions needed to implement CSA strategies and to adopt CSA practices
THINGS CAN BE TURNED AROUND

**Name:** Hermogenes Deras  
**Location:** Sensentí, Ocotepeque, Honduras  
**Altitude (m.a.s.l.):** 900  
**Adaptation practices:**  
- Cover crops
- Temporary shade

<table>
<thead>
<tr>
<th></th>
<th>Adaptation</th>
<th>Tree Height</th>
<th>Tree Width</th>
<th>Bags of 60kg gb/ha</th>
<th>Quality</th>
<th>Income USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Control</td>
<td>1.3</td>
<td>1.0</td>
<td>5.4</td>
<td>Estándar/78</td>
<td>704</td>
</tr>
<tr>
<td>B</td>
<td>Brachiaria Ruziziensis</td>
<td>1.6</td>
<td>1.3</td>
<td>11.0</td>
<td>Estándar/79</td>
<td>1,430</td>
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<tr>
<td>C</td>
<td>Brachiaria Ruziziensis y Gandul</td>
<td>1.7</td>
<td>1.3</td>
<td>16.5</td>
<td>HB (Duro)/80</td>
<td>2,295</td>
</tr>
</tbody>
</table>
# WHAT DOES CSA LOOK LIKE?

<table>
<thead>
<tr>
<th>Practices...</th>
<th>Strategies...</th>
<th>Enablers...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental Change</td>
<td>Organic matter management within the farm</td>
<td>CSA extension, weather stations for better forecasting</td>
</tr>
<tr>
<td>Systemic Change</td>
<td>On-farm diversification</td>
<td>Crop insurance, access to finance to support adaptation</td>
</tr>
<tr>
<td>Transformative Change</td>
<td>Switch to Robusta</td>
<td>Developing new value chains for new cash crop systems</td>
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</table>
COMPANY INVESTMENT IN CLIMATE SMART AGRICULTURE
Supply and Reputation are key drivers for adaptation investments

**Reputational Risks**
- Deforestation
- Child Labor
- Water Management
- Farmer Poverty

**Supply Risks**
- Profitability of coffee
- Coffee quality
- Decreasing yields
- Area available for coffee production
Company roles in smallholder adaptation

1. Direct Service Providers: Providing in-depth, direct farmer services

2. Collaborators: Sharing the task of service provision via collaboration

3. Catalysts: Sparking action in the sector level
Challenges to CSA Investment

• What is “climate smart”?
• Information needs to be easily accessible and usable
• Analytics and tools need to be targeted and simple
• Role of industry is critical but not complete
• Ongoing engagement and collaboration is critical for practice change
• Profitability comes first
• Farmer adoption is difficult
Steps to Addressing Climate Change

Know your risk

Know your farmers

Know your resilience

Know how to build resilience

Know your progress
Olam in Uganda

Olam provides **direct services** to farmers and invests in CSA as a way to **secure supply**

**Gain understanding of best practices**
- Demonstration Plots
- Climate smart practices
- Weather stations

**Improve uptake of CSA**
- Farmer Segmentation
- Gender workshops
- Stepwise investment
- Monitoring information

Olam provides direct services to farmers and invests in CSA as a way to secure supply.
**Future of Coffee**

- Demand in mln 60kg bags

- 2% annual growth rate

- 2,13% annual growth rate

**Source:** NKG – Milano EXPO by MRN
For more information, check out these resources:

CCAFs Climate-Smart Agriculture 101 [website](#)

CIAT, Green Line Consulting, IITA and Sustainable Food Lab, 2017: *Private Sector Consultation on Climate Smart Agriculture*

Feed the Future Alliance for Resilient Coffee [website](#)

Initiative for coffee&climate Sourcebook, 2015: *Climate Change Adaptation in Coffee Production*

Root Capital and Sustainable Food Lab, 2018: *Introduction to Measuring Smallholder Resilience in Agriculture Supply Chains*
Do you have any questions, please?

*Please raise your hand or post them in the Q&A box.*
# Next Modules

**Duration:** 75 minutes per module  
**Time:** 3pm CEST | 9am EDT | 6am PDT

<table>
<thead>
<tr>
<th>Module</th>
<th>Date</th>
<th>Title</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>June 7th</td>
<td>Understanding climate change</td>
<td>Introduction</td>
</tr>
<tr>
<td>2</td>
<td>June 12th</td>
<td>How is climate change affecting my supply chain?</td>
<td>Risk profiles</td>
</tr>
<tr>
<td>3</td>
<td>June 28th</td>
<td>How can I manage the effects climate change is having on my supply chain?</td>
<td>Tools</td>
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<tr>
<td>4</td>
<td>July 19th</td>
<td>How can I scale up CSA?</td>
<td>Scale</td>
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<tr>
<td>5</td>
<td>September 27th</td>
<td>How do I know my investment in CSA is working?</td>
<td>Monitoring</td>
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<tr>
<td>6</td>
<td>October 25th</td>
<td>How can I convince my company and others to invest in CSA?</td>
<td>Business Case</td>
</tr>
<tr>
<td>7</td>
<td>November 8th</td>
<td>How can collaboration work? Bringing action to origin!</td>
<td>Collaboration</td>
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[Link to CSA Learning Series]
### Participants of the Learning Series, Module 1

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
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<td>ALDI SÜD</td>
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<td>Pablo Fernandez Kolb</td>
<td>CIAT</td>
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<td>João Paulo Costa Rodrigues</td>
<td>Coocacer Araguari</td>
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<td>Daniel Orayem</td>
<td>Ecom Trading</td>
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<td>Katrien Delaet</td>
<td>EFICO</td>
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<td>Dorien Van Dun</td>
<td>EFICO NV</td>
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<td>Expocafé S.A.</td>
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<td>Pedro Gonzalez</td>
<td>FNC</td>
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<tr>
<td>Susan Macdonald</td>
<td>Global Bright Futures</td>
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<tr>
<td>Kerstin Linne</td>
<td>Green Line Consulting</td>
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<tr>
<td>Jan von Enden</td>
<td>HRNS North America</td>
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<tr>
<td>Jesus Alvarado</td>
<td>ICADE</td>
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<td>Jenny Kwan</td>
<td>IDH Sustainable Trade Initiative</td>
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<td>Tharic Galuchi</td>
<td>Imaflora</td>
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<tr>
<td>Lydia Namutebi</td>
<td>Kawacom Uganda Limited</td>
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<tr>
<td>ASELE BENJAMIN</td>
<td>KAWACoM UGNADA LIMITED</td>
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<tr>
<td>Shannon Higgins</td>
<td>Mother Parkers Tea &amp; Coffee</td>
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<tr>
<td>Marcus Laws</td>
<td>NCBA CLUSA</td>
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<td>Igor Motar</td>
<td>Nestlé</td>
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<td>Pablo Alvear</td>
<td>Rikolto</td>
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<td>Thomas Delbar</td>
<td>Supremo</td>
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<td>Jeronimo Bollen</td>
<td>Sustainable Harvest</td>
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<td>Liam</td>
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<tr>
<td>Hannah Ward</td>
<td>Twin</td>
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<td>Elizabeth Newman</td>
<td>USAID</td>
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<td>Curt Reintsma</td>
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<td>Pablo Ramirez</td>
<td>Winrock International</td>
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<td>Katharina Plassmann</td>
<td>Yara International ASA</td>
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<td>Nestor Meneses</td>
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<td>Williams Ferreira</td>
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<td>Tomasito</td>
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<td>Solidaridad Latinoamerica</td>
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<td>Alberto Ponce</td>
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**Note:** The organizations listed are affiliations and not necessarily the entirety of the organization's work or mission.
CSA Learning Series

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