Transforming agricultural innovation for people, nature, and climate
Taking action research to scale in agricultural systems

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The global food system needs fixing

Undernutrition (FAO)

Numbers of natural catastrophes (MunichRe)

Climate extremes

→ selling productive assets
→ reducing number of meals
→ migration
→ ......
Transform research, development and innovation systems to deliver impacts at scale

Realign

Business as usual

Reroute

Climate-resilient and low emissions practices

Reduce

Healthy and sufficient food with low food loss and waste

de-Risk

Find the report **here**
Situation Analysis: CSA Profiling

https://ccafs.cgiar.org/publications/csa-country-profiles
CSA & Climate Risk Profiling

https://ccafs.cgiar.org/publications/csa-country-profiles

Climate-Smart Agriculture Profiles
- Completed and available
- Currently in progress
- Under consideration for development

30+ Countries Globally
50+ Sub-nationally
Training and Information were Identified as the Single Largest Barrier Category to CSA adoption

CSA is Common-Sense Agriculture: Income and Profit are Important

- 88% Training/information
- 39% Policy/institutional
- 30% Economic
- 16% Social/cultural
- 9% Environmental
Understanding spatial and temporal dynamics of climate hazards and climate change impacts

East and Southern Africa

Modelled climate change impacts
- 33.5% less climatically suitable cropland
- -15% wheat yield reduction
- -15% maize yield reduction

West and Central Africa

Modelled climate change impacts
- 23.2% less climatically suitable cropland
- -15% wheat yield reduction
- -30% maize yield reduction

Summary of findings from IPCC reports

Harvest 37.7
Livestock 22.3
Fire 21.2
Deforestation 15.8
Crop 2.8
Rice 0.2
Suitability of CIS

- Implementation ready
- High potential
- Potential
- Viable
- Long-term potential
- Low priority
- No data

Digital readiness

- 65% area with 2G, 3G or 4G network coverage
- 37% area with 3G or 4G network coverage
- 67% hazard exposed area suitable for climate information services

Type of changes made (Rwanda only)

<table>
<thead>
<tr>
<th>Change</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grew a new or different crop</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>Grew a new or different variety</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Increased the area grown under a crop or variety</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Decreased the area grown under a crop or variety or stopped growing it</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Changed the date of planting crops</td>
<td>24%</td>
<td>30%</td>
</tr>
<tr>
<td>Changed the type or amount of inputs used</td>
<td>33%</td>
<td>36%</td>
</tr>
<tr>
<td>Changed the way to manage land and / or crops</td>
<td>49%</td>
<td>50%</td>
</tr>
</tbody>
</table>

CIAT (2019)

CIAT (2020)
Building institutional capital and digital technologies to deliver agro-climatic advisory

- **Types:** Farmer Organization, NGO National, NGO International, Private sector, Government, Research and Training, Program / Project, Civil society, MTA
- **Levels:** Local, National, Regional, International

**Control group**
- 67.75% (Used agroclimatic forecasts)
- 32.25% (Did not use agroclimatic forecasts)

**Treatment group**
- 42.06% (Used agroclimatic forecasts)
- 57.94% (Did not use agroclimatic forecasts)

Countries: Guatemala, Honduras, Colombia

- **Guatemala**
- **Honduras**
- **Colombia**

- Control group
- Treatment group

- Used agroclimatic forecasts
- Did not use agroclimatic forecasts

**Building institutional capital and digital technologies to deliver agro-climatic advisory**

- Control group
- Treatment group

- Used agroclimatic forecasts
- Did not use agroclimatic forecasts

- Guatemala
- Honduras
- Colombia

**Levels:** Local, National, Regional, International

**Types:** Farmer Organization, NGO National, NGO International, Private sector, Government, Research and Training, Program / Project, Civil society, MTA

**Diagram:**

- Guatemala
- Honduras
- Colombia

- Control group
- Treatment group

- Used agroclimatic forecasts
- Did not use agroclimatic forecasts
From Climate-Smart Profiles to Investment Plans

US$ 1.5 Billion+ of investments planned

Complement and build on CSA profiles to *identify and design bankable CSA investment opportunities*

**Completed:**
Bangladesh, Burkina Faso, Côte d’Ivoire, Ghana, Mali

**Forthcoming:**
Nigeria (with UNDP)
Policy, Program and Strategy Review: Developing a Long List of Potential Investments

Strategies & Programs

NDC/CDN

Agricultural Systems:
1. Climate-Smart Irrigated Rice Development Program
2. Climate-Smart Red Meat Development Program
3. Climate-Smart Cotton Development Program
4. Climate-Smart Maize Development Program
5. Program for the Climate-Smart Development of High Value Vegetable and Small Livestock Production for the Alto boxing Market (Bassam Munir-Abdulrahman)
6. Climate-Smart Soy Development Program
7. Program for the Development of the Climate-Smart Production and Processing of Yam (Igangane)
8. Climate-Smart Cassava Production and Processing Program
9. Climate-Smart Plantain Development Program
10. Development Program of Financial Products for the Climate
11. Program for Exploiting the Hydrological Potential for Vegetable and Potato Crops

Natural Resource Systems:
12. Climate-Smart Coastal Zone Development Program (Fishery and Coconut)
13. Climate-Smart Aquaculture Development Program
14. Program for the Climate-Smart Development of the Livestock Sector (Cattle and Small Ruminants)
15. Climate-Smart Livestock Development Program (Cattle, Sheep, and Goat)
16. Forestry, tree crop systems, agroforestry and sustainable land and water management
17. Climate-Smart Cocoa Development Program
18. High Value and Nutritious Dense Agroforestry System (Cacao, Ginger, OPF, etc.) Development Program in Isolated Low Rainfall Zone
19. High Value (Coffee, Cacao, etc.) Perennial Cropping System Development Program at High Elevation
20. Climate-Smart Cashew (Nuts) and Fruits Development Program
21. Climate Smart Palm-Oil (Tropical Forest Alliance 2020) and Rubber Development Program
22. Forest Protection, Protected Areas and Reafforestation Development Program

CSA Services:
23. Agrometeorological Stations Development Program, By Region
24. Climate Smart Bio-Energy Development Program
25. Insurance Products For Climate Risks Development Program
26. Grain Banks Development Program
27. National Monitoring System of GHG Emissions and Forest Areas Development Program (REDD+ Implementation)
28. Agricultural Mechanization, Harvest, Processing and Storage Infrastructure Development Program
29. Payment for Environmental Services (PES) Development Program
30. Climate-Smart Agriculture Extension Capacity-Building Development Program

SITUATION ANALYSIS
Target Setting, Climate Risks & Enabling Conditions
Weather forecasts in Senegal

- 7 million farmers get forecasts
- Better food security outcomes

- Working with women and men farmers
- Working with national meteorological service
- Working with extension agencies
- Working with 15 community radio stations

CCAFS is supported by:
¿What is GANSO guarantee?

• GANSO guarantee has been created in response to a growing demand in the Colombian market for sustainable and zero-deforestation beef products.

• GANSO Sustainability guarantee (Aval GANSO) outlines a clear path to achieve sustainability in beef farms.

• GANSO guarantee offers a voluntary assessment tool for cattle ranchers and livestock companies interested in evaluating their management and a market assurance mechanism.

• This is a tool that facilitates the continuous improvement of livestock production.
## GANSO Guarantee System

| Environment       | - Reduction of GHG  
|                   | ✓ - Zero deforestation  
|                   | ✓ - Biodiversity, water |
| People            | Decent, fair and safe working conditions |
| Management        | Planning, execution and verification |
| Animals           | Animal health and welfare |
GANSO guarantee coverage

Conservation area

Number of cattle

10,205 ha

1,025 ha

15,391

More info:
https://hdl.handle.net/10568/110456

http://ganso.com.co/
Thank you!

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