

WORKSHOP REPORT

CLIMATE SMART AGRICULTURE AS AN INVESTABLE  
BUSINESS MODEL FOR FINANCIAL INSTITUTIONS?

WAGENINGEN UNIVERSITY & RESEARCH  
WITH NETHERLANDS PLATFORM INCLUSIVE FINANCE (NpM)  
AND RABOBANK PARTNERSHIPS

Workshop within the SDG Conference 'Towards Zero Hunger: Partnerships for  
Impact', 30-31 August 2018, Wageningen, The Netherlands

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Marcel van Asseldonk, Wageningen Economic Research  
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Tomaso Ceccarelli, Wageningen Environmental Research  
Corné de Louw, Rabo Partnerships B.V.  
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## CONTENT

1. Workshop design	3
2. Workshop conclusions	7
Annex: Presentations	8
a) Climate-Smart Agriculture – an investable business model? Cor Wattel, Marcel van Asseldonk (Wageningen Economic Research) and Jaclyn Bolt (Wageningen Environmental Research)	8
b) CSA case: Cooperativa de Servicios Múltiples Sol y Café Ltda ,Perú Sonja Ooms (Oikocredit / chairman NpM Green Inclusive Finance working group)	16
c) CommonSense G4AW Ethiopia – an inspiring case from the NpM Rural Finance working group Mariel Mensink (Terrafina Microfinance/ chairman NpM Rural Finance working group) and Tomaso Ceccarelli (Wageningen Environmental Research)	24
d) Integrating CSA in fintech solutions – a banker’s perspective Corné de Louw (Rabobank Partnerships B.V.)	30
Discussion	32

## 1. WORKSHOP DESIGN



### MORE ABOUT PARALLEL SESSION:

#### FINANCE AND CSA – HOW CAN CLIMATE-SMART AGRICULTURE BECOME AN INVESTABLE BUSINESS MODEL FOR FINANCIAL INSTITUTIONS? – SOME INSPIRING EXAMPLES OF THE NPM, RABOBANK DEVELOPMENT AND WUR

##### Introduction

Long-term food security is at risk, if the challenges of climate change for food production are not adequately addressed. Therefore, GHG emissions from agriculture need to be reduced, and food producers must be better protected against climate-related hazards (temperature, rainfall, storms). This will require substantial investments at farm and landscape level, into climate-smarter ways of doing agriculture. Investment resources – public and private – are being pledged internationally, following the Paris agreement. But to achieve impact at scale, climate-smart agriculture needs to become an attractive business model for farmers, value-chain partners and investors. This workshop will show some examples of this: cases where climate-smart agriculture is becoming an attractive investment opportunity.

##### Partners

A WUR team discussed with NpM (Netherlands Platform for Inclusive Finance) and Rabobank Development about the experience of Netherlands' financial investors with climate-smart agriculture in emerging economies. This topic appeared to be of high interest to the three parties involved:

- NpM is the platform of Dutch investors in inclusive finance. It has recently organised events on green finance (2015) and on geodata for inclusive food and finance (2017), as well as several studies and events on rural finance. The search for investable models for agriculture and agribusiness, and also specifically for climate-smart and green investments, is a priority topic for NpM.
- Rabo Partnerships B.V. combines investments in partner banks in Africa – through the ARISE consortium with FMO and Norfund – with its advisory services on banking and food & agriculture. It participates in the Farm to Market Alliance in Eastern Africa, the Champions 12.3 coalition (related to SDG 12.3 on food waste) and the recently launched financing facility for land restoration and forest protection, created with UNEP under the Kickstart Food programme.
- WUR is quite active in the field of climate-smart agriculture. One of its research programmes is specifically addressing the topic of finance and business models for climate-smart agriculture (CGIAR/CCAFS-WUR 2017-20201).

During the meetings, ideas were exchanged about challenges and solutions in this domain, and the interest was expressed to seek collaboration for mutual benefit. It was agreed that the SDG conference that WUR is organising on 30-31 August could be used as a stepping stone in such collaboration. The idea is to organise a session on Finance and CSA, co-hosted by NpM, Rabobank Development and WUR. This session would be part of the stream "Evidence base for healthy, sustainable and inclusive food systems" in the conference.

##### Key question

How can Climate-Smart Agriculture become an investable business model for financial institutions? - inspiring examples of the NpM, Rabobank Development and WUR.

##### Co-hosting

The session will be co-hosted by:

- Netherlands Platform for Inclusive Finance (NpM).
- Rabo Partnerships B.V.
- Wageningen Economic Research

##### Ingredients

1. Inspiring concept paper by Wageningen Economic Research
2. Inspiring case of the NpM Green Finance working group
3. Inspiring case of the NpM Rural Finance working group
4. Inspiring case of Rabo Partnerships B.V.

SDG CONFERENCE  
TOWARDS ZERO HUNGER:  
PARTNERSHIPS FOR IMPACT

1

**MORE ABOUT PARALLEL SESSION:**

**FINANCE AND CSA – HOW CAN CLIMATE-SMART AGRICULTURE BECOME AN INVESTABLE BUSINESS MODEL FOR FINANCIAL INSTITUTIONS? – SOME INSPIRING EXAMPLES OF THE NPM, RABOBANK DEVELOPMENT AND WUR**

**1. Inspiring concept paper by Wageningen Economic Research.**

Cor Wattel, Wageningen Economic Research, Researcher-consultant, smallholder finance, rural economy and evaluation

**CSA – an investable business model?**

The concept paper will offer a framework around the question: how can CSA become an investable business model for financial institutions?

It will develop the framework along two lines. Firstly, it will explore how farmers get access to CSA technologies. For this purpose, a typology of CSA practices is laid out, focusing on practices that are sufficiently tested to be widely used. Then we will present some lessons learnt on the importance of finance for the adoption of CSA practices.

Secondly, it will review under which conditions the application of CSA practices can be an attractive business proposition for financiers, agribusinesses and farmers. To this end, we will show the different ways (channels, products) in which financiers are involved directly or indirectly with (climate-smart) agriculture. And we will explore the drivers and conditions that make investments into CSA attractive for financiers, agribusinesses and farmers.

We will conclude with an outlook of "challenges and promises".

**2. Inspiring case of the NpM Green Inclusive Finance Group**

Sonja Ooms, Oikocredit, program manager environment and chairman of NpM Green Inclusive Finance Group

**Sol Y Café**

According to the World Bank, climate-smart agriculture is an integrated approach addressing the challenges of food security and climate change. It aims to achieve 3 goals: Increased productivity, Enhanced resilience, Reduced emissions, which links it to several Sustainable Development Goals, most closely to 'Climate Action (SDG 13)' and 'Zero Hunger (SDG 3)'. Oikocredit's investee 'Sol Y Café', a cooperative of small-holder farmers in Peru that produces and exports fairtrade, organic Arabica coffee has put CSA in practise.

One of the main concerns of Peruvian coffee cooperatives is the low productivity of crops. Farmers consider investing in their land a waste of money. Sol Y Café provided technical assistance to its farmers (eg. training on certification, fertilization, pruning, new varieties etc) which helped triple productivity in 10 years. They also organized yearly quality contests among its members to promote growing good coffee quality. And over the past few years, Sol y Café has diversified farmer production with new products such as cocoa, rice, passion fruit honey, to provide farmer members with income all year round (coffee is seasonal).

I.t.o. enhanced resilience, Sol y Café is renovating crops by introducing new coffee varieties that not only are more productive but also more resilient to diseases and pests (eg. coffee leaf rust). In fact all Peruvian cooperatives are doing the same. Moreover farmers were trained on the importance of reduced carbon emissions. The use of agrochemicals and chemical fertilizers pollutes water and soil and leads to environmental degradation. Sol Y Café farmers produce 100% organic coffee in the shadow of timber trees which are collectors of CO2.

#### MORE ABOUT PARALLEL SESSION:

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The business case for these additional CSA investments is that it's a win-win for all involved: Oikocredit can finance coffee renovation, the cooperative is ensured of a financier for a vital project, the farmers increase productivity and hence income and finally, the environment is better served as well. What's key here is the combination of a fitting financial product and Technical Assistance. Pilots elsewhere can perhaps promote this kind of working, provided there is funding for them. Not structurally for all projects, but simply to help innovators play a catalyst role.

#### 3. Inspiring case of the NpM Rural Finance working group

Mariel Mensink, Terrafina Microfinance, senior program officer and chairman of NPM Rural Finance Group

Tomaso Ceccarelli, Wageningen Environmental Research (Alterra), Senior researcher, Global Food Security

##### CommonSense

CommonSense is a Geodata for Agriculture and Water (G4AW) project in Ethiopia, with Wageningen Environmental Research in lead and providing specific expertise.

A platform is developed with specialized information services including a.o. dashboards and mobile applications for crop monitoring, weather and yield forecasting, loan portfolio monitoring and risk assessment. End users interact with the platform through applications designed to meet their specific needs. The project targets smallholder farmers directly as well as indirectly through agricultural unions and cooperatives, microfinance institutions, and extension services. Three regions and several value chains are covered (e.g. sesame and malt barley). CommonSense provides information, such as weather forecasts, to help farmers make more informed decisions on their activities. It supports unions e.g. with member management, output marketing, crop seasonal monitoring.

Currently, a credit analysis tool is field-tested in collaboration with ICCO-Terrafina, 3 partners MFIs and an Ethiopian ICT company, to be used by the MFIs to digitize their client assessment and agri-loan applications for small holders. The tool, which uses a tablet application to collect data on farmers, is called Agri-Credit Assessment Tool (A-CAT). Client information is managed at MFI level. The project is integrating the A-CAT tool with geo-data components such as farmers location (via GPS), crop suitability (climate and soil based) and the associated farming risk as well the crop status in the current growing season (based on MODIS and in perspective, Sentinel-2 satellite products).

The business model is based on both license and transaction models depending on the users.

#### 4. Inspiring case of Rabo Partnerships B.V.

Corné de Louw, Rabo Partnerships B.V., Project Manager Agribusiness & Cooperative Development

##### Satellite monitoring: a driver for economic growth

What could help to lower farmers' risk profiles so that they can gain access to credit? This is still a major problem these days. Banks are often unwilling to provide finance to farmers as they perceive it as too risky and costly. Just a very small percentage of banks in developing countries

**MORE ABOUT PARALLEL SESSION:**

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find Food & Agri businesses attractive enough to finance. What can be the business case from their perspective and who is there to team up with? What could be the role of financial technology (Fintech) to create attractive business cases? And finally, as a key subject in this case, how can a tool be of help?

Rabobank and Wageningen University & Research (WUR) in the Netherlands have joined forces to develop a digital tool to monitor smallholders' crops. Accurate information improves the credit assessment parameters. A more reliable risk profile could stimulate financial institutions to provide loans for smallholders, making it an important driver for economic growth and prosperity.

The tool is called the Climate Smart Digital Farm Finance (CSDFF) Solution, which supplies reliable information about farms from different data sources. WUR designed a so-called Green Monitor that identifies and tracks crops at field level. It can achieve a resolution of 10 by 10 m<sup>2</sup> using images from a satellite. The satellite supplies regular updates on biomass development in the field.

The objective of the CSDFF Solution is to provide banks with data on crop production while reducing the need to visit farms in remote areas. Regular crop monitoring, a key element in the credit cycle, has been very expensive to date, which is why it has been utilized only rarely. CSDFFS makes it affordable and straightforward to implement.

**Designing a session of 90 minutes**

Time	Subject	Responsible Actor
5 min	Introduction of the topic	WUR – facilitator
20 min	Pitch concept paper Pitch case 1 Pitch case 2 Pitch case 3	WUR NpM Green Finance NpM Rural Finance Rabo Partnerships B.V.
35 min	Interaction with audience around two key questions:  <u>Question 1</u> : Many CSA techniques are currently being developed but how can farmers get access to them, realistically? How can we bridge the gap between theory/techniques on the one hand and practice/application of techniques on the ground on the other hand?  <u>Question 2</u> : What is the trigger for FI to invest in CSA? What can make CSA more attractive to them?  Several forms are possible (work in progress / to decide and how to organize this part.)	
10 min	Take-aways for the main conference (major breakthrough suggestions, challenges to collaborate on)	

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## 2. WORKSHOP CONCLUSIONS

1. **Business models for CSA are possible but not self-evident:** Promoting CSA through (local) financial institutions and value-chain actors is possible, but the business case must be profitable and innovative, and is not self-evident. Developing such business models requires commitment to agriculture in general and to sustainability and CSA specifically, as well as entrepreneurship, CSA knowledge and research, fintech and data solutions<sup>1</sup>, specific CSA incentives, risk-bearing and long-term capital, and training and capacity development.
2. **Public-private partnerships needed:** therefore, financial institutions and value-chain actors need to partner with other actors (government, donors, climate funds), that can bring in the above elements. In public private partnerships, knowledge and risks can be shared to make the business model viable.
3. **Technical support and matching funds needed:** Technical support (technology sharing, capacity development) is crucial to a company's investment in CSA. This requires external matching funds (grant-based), complementary to investment capital.
4. **Other models for farmers outside the main markets:** There are segments of farmers that are outside the reach of banks and processing companies, specifically subsistence farmers. To a certain extent these farmers can be reached by microfinance and cooperatives, or by community finance in the villages. These would need capacity support and access to technologies to address the smallholder finance needs. Still, in these less market-oriented segments of farmers CSA business models need to be complemented with other instruments (f.i. granted seed capital, blended finance, payments for environmental services, local money), with involvement of other local actors (local government, local water boards, NGOs etc).
5. **Capital available, but how to reach the farmers?** There is lots of capital available globally to address climate change and resilience, but how to reach the farmers for CSA activities? Only a minority of banks is really interested in sustainable agriculture. Also climate funds focus mainly on mitigation activities and have difficulty in reaching out to adaptation activities, to agriculture and to farmers, while farmers could play an important role in climate resilient strategies, and are often the first in the value chain to experience effects of climate change
6. **Consumers and supermarkets to be involved:** Consumers and supermarkets need to be mobilised in order to support the introduction of CSA practices among farmers and value-chain parties. The price paid by consumers and supermarkets should reflect the true costs of producing in a sustainable manner.
7. **CSA concept:** CSA is still a broad concept, complex and multi-dimensional. It is important to translate it into concrete options, trade-offs and business models.

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<sup>1</sup>NpM recently made an overview of geodata and ICT solutions related to inclusive finance and food security. See <http://www.inclusivefinanceplatform.nl/what-s-new/reports-more/report-geodata-and-ict-solutions-for-inclusive-finance-and-food-security> .

## ANNEX: PRESENTATIONS

- a) Climate-Smart Agriculture – an investable business model?  
Cor Wattel, Marcel van Asseldonk (Wageningen Economic Research) and Jaclyn Bolt (Wageningen Environmental Research)

# FINANCE AND CSA – HOW CAN CLIMATE-SMART AGRICULTURE BECOME AN INVESTABLE BUSINESS MODEL FOR FINANCIAL INSTITUTIONS?

Workshop at the SDG conference “Zero Hunger –Partnerships for Impact”  
30 August 2018



## Introduction

Your moderator  
for this workshop

**Gerben Splinter**

Wageningen  
Economic  
Research






Photo credit: wwf.org.uk



2



# Climate-Smart Agriculture – an investable business model?

Workshop presentation at the SDG conference "Zero Hunger – Partnerships for Impact"

Cor Wattel, Marcel van Asseldonk, Jaclyn Bolt, Wageningen, 30 August 2018



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## Why Climate-Smart Agriculture?

1. Because agriculture contributes 20-25% to emissions of greenhouse gasses worldwide (deforestation, rice cultivation, cattle, fertilizer)
2. Because agriculture and food production may suffer from changes in temperature and rainfall patterns (f.i. arable land, yields, floods, pest & diseases)

 WAGENINGEN  
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4

## Definition of CSA

Climate-smart agriculture (CSA) is proposed as a solution to transform and reorient agricultural systems to support food security under the new realities of climate change.

CSA consists of co-achieving three objectives:

- a) Increased agricultural productivity
- b) Enhanced resilience to climate change
- c) Reduced GHG emissions

<https://ccafs.cgiar.org>

[www.worldbank.org/en/topic/climate-smart-agriculture](http://www.worldbank.org/en/topic/climate-smart-agriculture)

[www.fao.org/climate-smart-agriculture/en](http://www.fao.org/climate-smart-agriculture/en)

Dossier Climate-Smart Agriculture at [www.wur.nl](http://www.wur.nl)



## Types of climate-smart options

Weather-smart	Water-smart	Seed/breed-smart	Carbon/nutrient-smart	Institutional/market-smart
<ul style="list-style-type: none"> <li>• Weather forecasts</li> <li>• Agro-advisories</li> <li>• Weather insurance</li> <li>• Climate analogues</li> <li>• Avoided maladaptation</li> </ul>	<ul style="list-style-type: none"> <li>• Aquifer recharge</li> <li>• Rainwater harvesting</li> <li>• Community management of water</li> <li>• Laser leveling</li> <li>• On-farm water management</li> <li>• Solar pumps</li> </ul>	<ul style="list-style-type: none"> <li>• Adapted varieties</li> <li>• Adapted breeds</li> <li>• Seed banks</li> </ul>	<ul style="list-style-type: none"> <li>• Agroforestry</li> <li>• Minimum tillage</li> <li>• Land use systems</li> <li>• Livestock management</li> <li>• Integrated nutrient management</li> <li>• Biofuels</li> </ul>	<ul style="list-style-type: none"> <li>• Cross-sector linkages</li> <li>• Local institutions</li> <li>• Gender strategies</li> <li>• Contingency planning</li> <li>• Financial services</li> <li>• Market information</li> <li>• Off-farm risk management</li> </ul>



Source: CCAFS. 2016. *Climate-Smart Villages. An AR4D approach to scale up climate-smart agriculture*. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

## Why would farmers adopt CSA practices?

1. If these practices help resolve farming risks due to climate change.
2. If it is more profitable to apply these practices (cash or in-kind)
3. If it creates social or environmental benefits for the community.

### **Conditions:**

- *Practice-specific: how profitable, how risky/ uncertain, how bulky*
- *Context-specific: agro-ecology, markets & institutions (incl TA/extension & local unis)*
- *Household-specific: knowledge & education, resources, risk attitude/ time preference, capital constraints*

## How can CSA become an investable business model for financial institutions?

### 1. RISK-DRIVEN MOTIVES:

- Mitigating climate-related risks of their agri-clients
- Compliance with internationally accepted sustainability standards (including climate-related criteria)

### 2. OPPORTUNITY-DRIVEN MOTIVES:

- Attracting climate funding
- Financing suppliers of CSA technologies
- Financing farmers/VCs that benefit from climate change
- Financing farmers/VCs that are able to cope with climate risks

## LANDSCAPE OF CLIMATE FINANCE IN 2015/2016

Global climate finance flows along their life cycle in 2015 and 2016. Values are average of two years' data, in USD billions.

410 BN USD ANNUAL AVERAGE

CLIMATE POLICY INITIATIVE

### SOURCES AND INTERMEDIARIES

Which type of organizations are sources or intermediaries of capital for climate finance?

### INSTRUMENTS

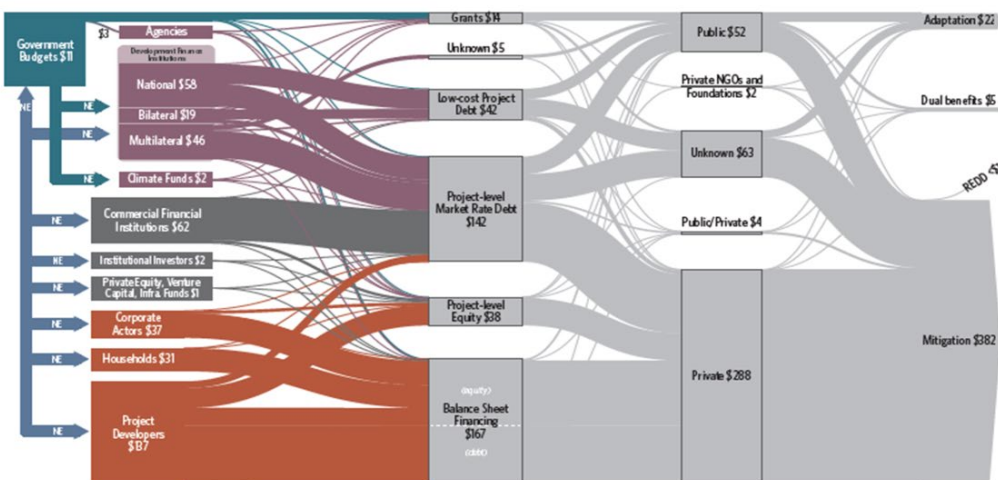
What mix of financial instruments are used?

### RECIPIENTS

Does climate finance go through public or private channels?

### USES

What types of activities are financed?



KEY PUBLIC MONEY PRIVATE MONEY PUBLIC FINANCIAL INTERMEDIARIES PRIVATE FINANCIAL INTERMEDIARIES TRACK FOR INVESTORS BILLIERS NE: NOT ESTIMATED

9

## TOWARDS INVESTABLE BUSINESS MODELS FOR CSA?

- Can all farmers be reached? Limited outreach channels! Self-financing.
- Gains for all involved (is it profitable? who shares in the revenues? who takes the risk? who pays the bill?)
- Bundling services (financial, non-financial, incentives)
- Blending finance (soft and commercial)
- Partnerships

THANK YOU!

[cor.wattel@wur.nl](mailto:cor.wattel@wur.nl)

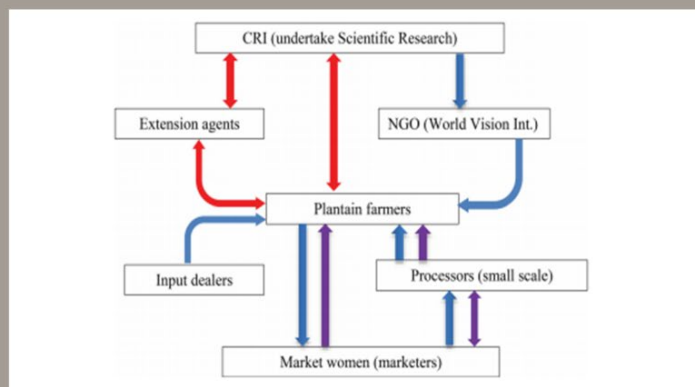


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EXTRA SLIDES  
(can be used in response to questions  
or discussion topics)

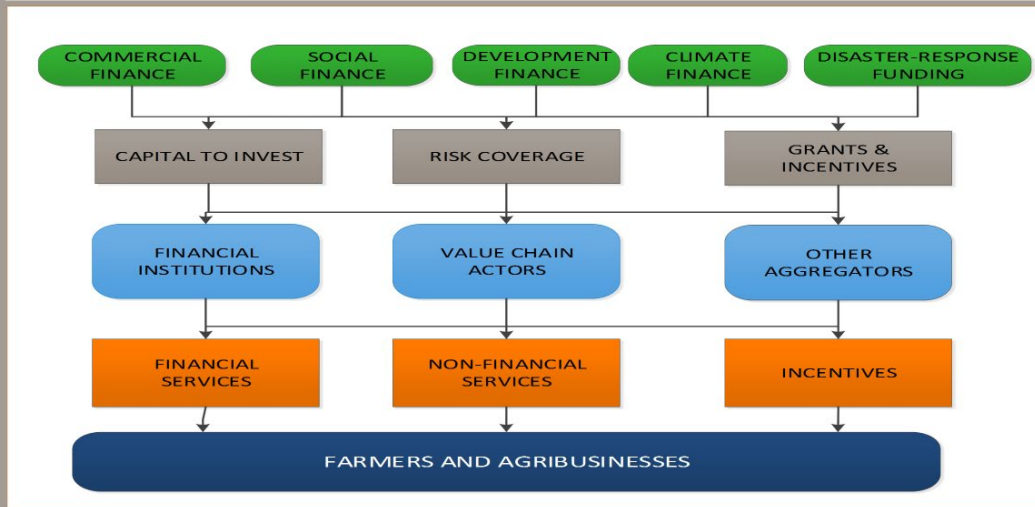
## How can farmers get access to knowledge about (new or existing) technologies and practices?

An example from  
plantain farmers  
in Ghana

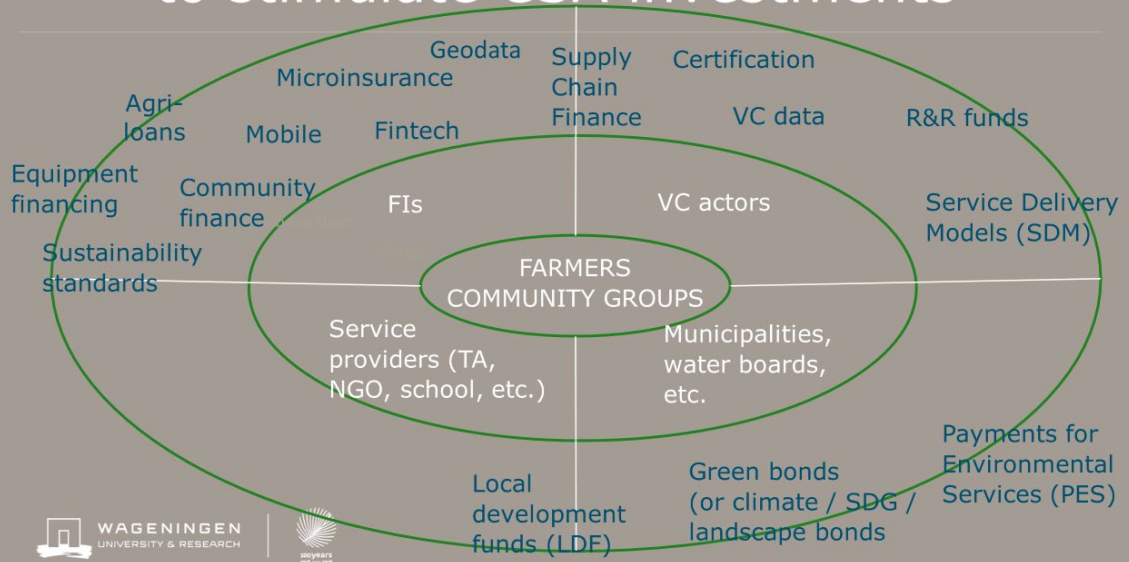


Source: Weyori et al (2018),  
<https://doi.org/10.1080/1389224X.2017.1386115>

# Financial chains: from capital funds to farmers



# Finance-related tools to stimulate CSA investments



- b) CSA case: Cooperativa de Servicios Múltiples Sol y Café Ltda ,Perú  
 Sonja Ooms (Oikocredit / chairman NpM Green Inclusive Finance  
 working group)



**CSA case: Cooperativa de Servicios Múltiples Sol Y Cafe Ltda, Peru**

**WUR conference: Towards Zero Hunger, Wageningen 30 August 2018**

**Sonja Ooms, Manager Environment Oikocredit / Chairman NPM GIF group**

Presentation outline: context, case, secrets, business case



13 network members + Ministry of Foreign Affairs

2 important working groups:

- Green Inclusive Finance Group
- Rural Finance Group
- Overlap: CSA





## The NpM Green Inclusive Finance working group (GIF)

Task: to jointly 'green' the Inclusive Finance sector (Fis, MFIs, SMEs)

Core group: **FMO, Triodos, Triple Jump, Oikocredit (chair)**

Agenda 2016-2018  
- Definition GIF  
- Standards and indicators  
- Case development, with triple value

2019-2020  
- Role of technology  
- Risk versus opportunities in GIF  
- Awareness raising and needs



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## Case: Oikocredit partner Sol Y Café

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Sector / subsector: [Agriculture / Coffee](#)

Geographic region: [Peru, San Ignacio, Jaen and Cajamarca regions, 900-2050 metres above sea level](#)

Organisation: [Cooperative of small growers, founded in 2008, > 1000 members \(farmer families\)](#)

Business: [Producing / exporting Arabica coffee for specialty markets in N America + Europe](#)

Certifications: Fair Trade  Organic  FLO  FLOCERT  assuring fairness SPP  **CERTIFIED**  Association for Strategic Planning **STRATEGIC PLANNING PROFESSIONAL™**

Partner: [Since 2011](#)

Loan: [1,500,000 USD](#)

Website: [www.solcafe.com.pe](http://www.solcafe.com.pe) 



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## Sol y Café and CSA (1)

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### Increased productivity

- set up productivity research and TA to farmers
- improved post-harvest infrastructure
- yearly quality contests among members

### 2008: new program PROCAFE

- high productivity farms: best coffee plants selected and fertilized, based on soil analysis + set as example!
- low productivity farms: plantations renovated and new varieties introduced
  
- 2014: coffee rust affected Peru, hence ALL plants were replaced gradually
- Sol Y Café gives TA. Farmers use FT premium price for renovation

=> increased income and sustainable jobs for small holders



Renovation: constant work in progress for healthy and productive coffee



Managers participate in quality competitions and trade conferences



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## Sol y Café and CSA (2)

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### Enhanced resilience

- crop renovation by introducing more resilient varieties
- diversified farmer production (eg. cocoa, rice, passion fruit, honey)
- stimulation of subsistence crops and small animal breeding

### Reduced emissions

- training of farmers on importance of reduced carbon emissions
- 100% organic production, in shadow of timber trees (no agro chemicals)

### Other success factors: Culture!!

- Cooperative is strict on quality control, record keeping on fertilization and investing in land



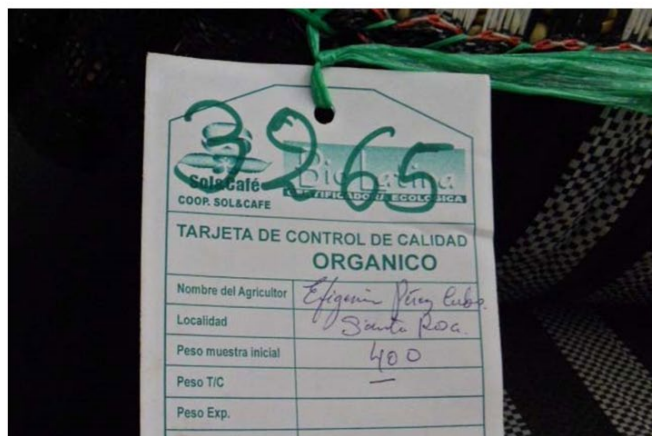
Manager checks coffee humidity and quality in the warehouse



CEO shows paper trail involved in direct, organic and FT contracts



Constant tracking of quality on all bags, from warehouse to export



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## Business case: a win-win for all

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- Investor: Oikocredit finances a solid 'green' coffee partner (preferred target group)
- Investee: Coop Sol y Café is financially viable, more profitable, secures external funding
- End client: Farmers increase productivity (tripled in 10 years!), coffee quality, and income
- Market: Delivers improved, more stable products, less price fluctuations
- Consumer: Receives better quality coffee, contributes to FT and environment
- **Environment:** is better served and protected

**Needed: matching funding for similar catalyst projects elsewhere !!!!!!**



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**Thank you!**

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## Definition GIF

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What, for whom, how, where, why?

Green Inclusive Finance comprises financial services for the ultimate benefit of low income people and communities, through such channels as Financial Intermediaries (FIs), Micro, Small and Medium Enterprises (MSMEs), cooperatives etc., in developing countries and emerging economies (or such subsets of the population within other countries), resulting in environmental benefits, while meeting **societal needs** and stimulating sustainable **economic growth**.



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## Climate Smart Agriculture (CSA)

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CSA is integrated approach addressing challenges of **food security** and **climate change**

- 3 CSA goals:
- 1) Increased productivity
  - 2) Enhanced resilience
  - 3) Reduced emissions

**SDG 3:** Zero Hunger

**SDG 13:** Climate Action



- c) CommonSense G4AW Ethiopia – an inspiring case from the NpM Rural Finance working group  
 Mariel Mensink (Terrafina Microfinance/ chairman NpM Rural Finance working group) and Tomaso Ceccarelli (Wageningen Environmental Research)

## Inspiring case of the NPM Rural Finance working group

### CommonSense project (G4AW), Ethiopia

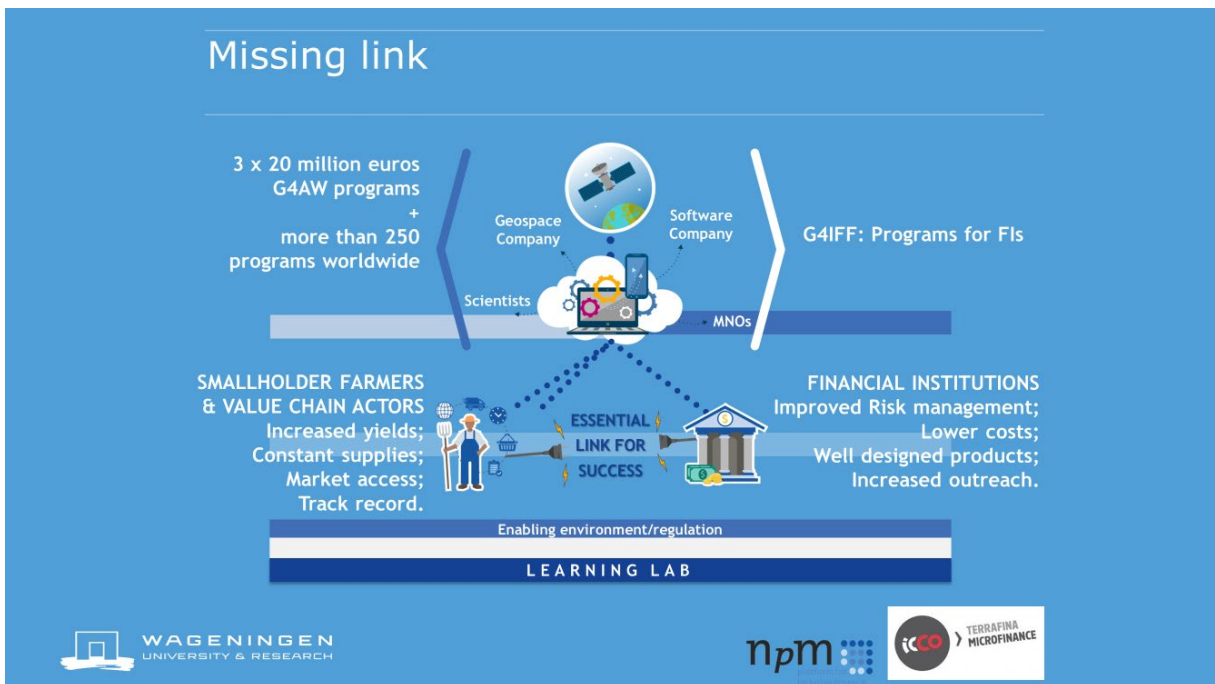
*Mariel Mensink, Terrafina Microfinance, senior program officer and chairman of NPM Rural Finance Group*

*Tomaso Ceccarelli, Wageningen Environmental Research (Alterra), Senior researcher, Global Food Security*

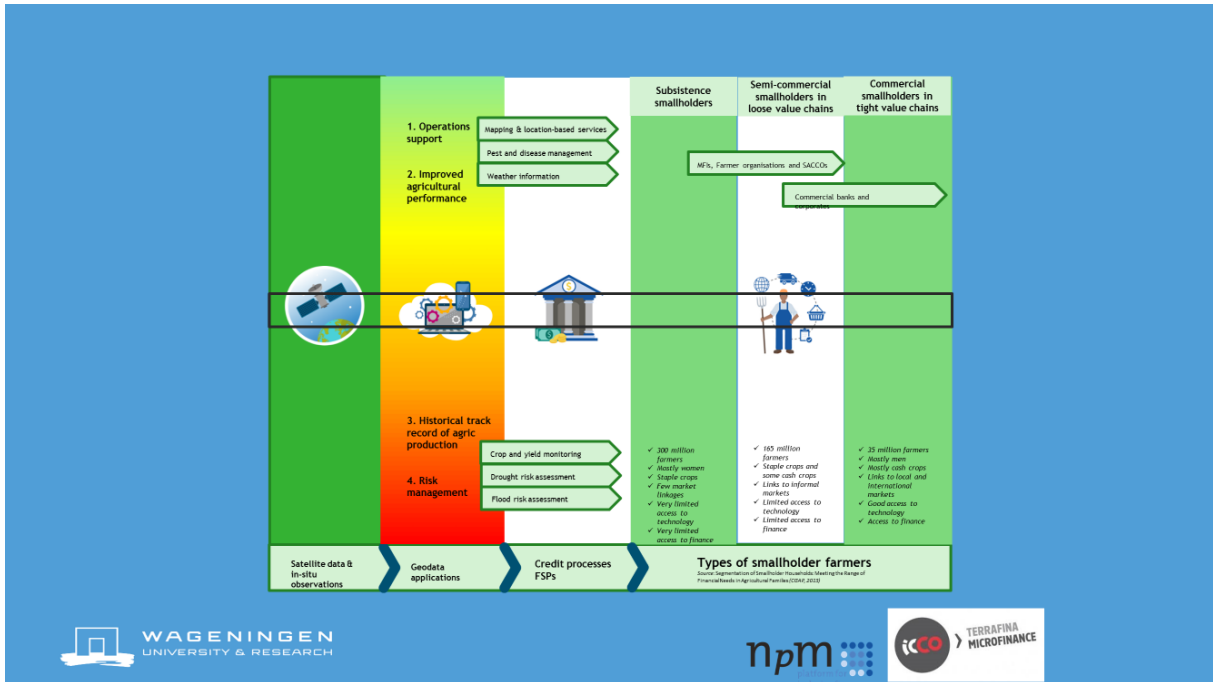
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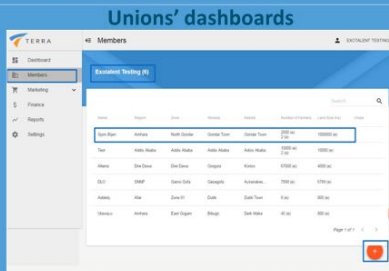


## What is happening in the field? The example of CommonSense, Ethiopia

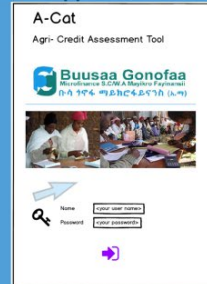
- 'Geodata for Agriculture and Water (G4AW) programme', of the Dutch Ministry of Foreign Affairs executed by NSO
- **reaching > 200,000 smallholder farmers directly or indirectly** (value chains: unions, coops, MFIs, extension services, etc.)
- provides *actionable* information services based on **remote sensing and geographic (geo) data**
- a **proven business case**: sustain the services after the project covers 4 regions and will end December 2018
- **three partners are MFIs**: Buusa Gonofaa, Harbu Microfinance Institution and SFPI

# CommonSense applications

Member management, seasonal monitoring, weather and crops yield forecasts, output marketing, financial transactions



## Apps for MFIs



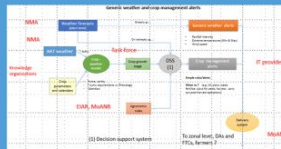
Digital agri-loan assessment and management tools

## Apps for farmers



SMS weather forecasts, market prices

## Apps for extension services



Agro-meteo advisory tool box.....



# Contents of the ASC

## A. Inputs & activities such as

- Inputs such as seed, fertilizers...
- Activity/labor costs
- Other costs

## B. Revenue

- Total production
- Family consumption
- Total sales

## C. Net income /loss

- Expected Net incomes
- Expected with sensitive price scenario
- Realized net income

Category	Value
Total costs (A+B+C)	
Revenue	
Total production	
To family consumption	
To be sold	
Total revenue	
Price	
Possible highest price	
Average price	
Possible lowest price	
Net income (expe)	
@ highest price	
@ average price	
@ lowest price	
Final result	
Price per unit	



What is happening in the field? Example G4AW: CommonSense Ethiopia

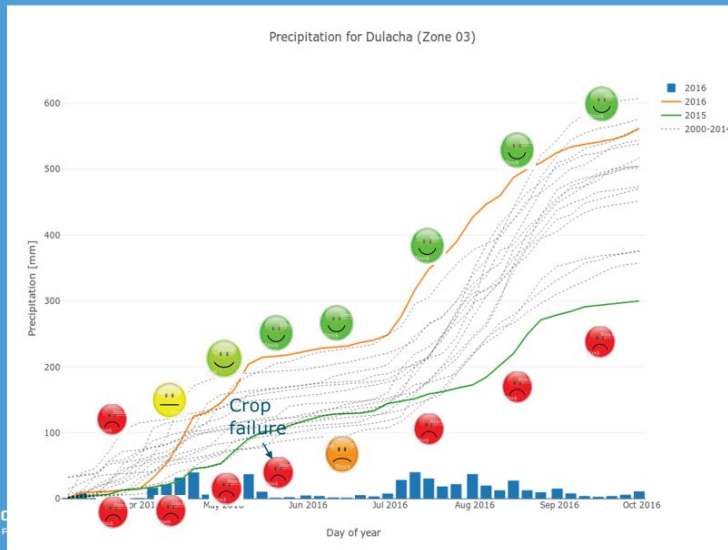
Farmer Name	Crop	soil/vol	acrage	Sowing date	Expected harvest date	Expected yield
Farmer1	Potato	Belleke	0.25	25-apr-15	10-sep-15	12 ton/ha
Farmer1	Teff	Red	0.25	20-apr-15	15-oct-2015	3 ton/ha

## Incorporating geo-data and remote sensing products in the agri-loan assessment

### Geo-data components identified

Component	Loan officer	Branch office	Head office
<b>Farmer location<sup>1</sup></b>	X	X	X
<b>Climate based crop suitability</b>	X	X	X
<b>Soil-based crop suitability</b>	TBD <sup>2</sup>	TBD	TBD
<b>Dashboard generic indicators:</b> <ul style="list-style-type: none"> <li>• Precip</li> <li>• VI</li> <li>• Temp</li> </ul>	Dashboard	Dashboard	Map for all branch offices linking to branch dashboard
<b>Dashboard crop-specific indicators;</b> <ul style="list-style-type: none"> <li>• Temperature</li> <li>• Water requirements</li> </ul>	Dashboard	Dashboard	Map for all branch offices linking to branch dashboard
<b>Weather forecasts</b>	Value to be confirmed	Dashboard	As above
<b>Crop Specific VI (Sentinel2)</b>	Dashboard	Experimental, depends on field location	Experimental, depends on field location

## Growing season monitoring



## Proof of concept...



Growing season monitoring helps planning ahead and mitigating the effects of crop failure in a community

Teshome Y. Dayesso, GM Buusaa Gonofaa MFI

Thank you አመሰግናለሁ !



d) Integrating CSA in fintech solutions – a banker’s perspective  
Corné de Louw (Rabobank Partnerships B.V.)



## Climate-smart agriculture: a banker’s perspective

Corné de Louw, Rabo Partnerships B.V.,  
Project Manager Agribusiness & Cooperative Development

42

## Countries in Africa are overbanked- but farmers are underserved



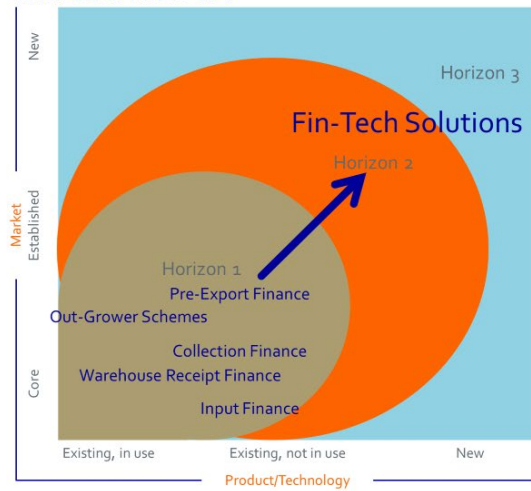
Ghana: 35 banks, 4 banks show  
appetite to serve value chain  
partners



Ethiopia: 18 banks, 1 bank has  
appetite to serve farmers



# What is the incentive for bankers to finance Climate Smart Agricultural investments?



Horizon 1: existing in use, core markets  
 Horizon 2: existing, not in use, established markets  
 Horizon 3: new initiatives, new markets

**A high return on investment**

43

# Which can be achieved by integrating CSA in Fin-Tech solutions



## Discussion

- **Six** chairs in the middle for discussion. **One free** for permanent rotation.
- First round of **15 minutes** Cor & Sonja take a seat, filled up with 3 people out of the audience.
- If someone later on shows interest to participate he or she can **take the sixth chair**. Someone else has to **leave** so one chair remains empty.
- **Second round** same concept, only with Muriel/Tomaso & Corné taking place.



## Key question:

What is required for the scalability of Climate Smart Agriculture?



Thank you !

Please fill in and  
post it on our  
wall...

