



### 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 climatesmarter 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.

## <u>Co-hosting</u>

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.





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## **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 C02.





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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





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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 m2 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.

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)	

# **Designing a session of 90 minutes**