

# Financial service supply with potential for supporting climate-smart agriculture

Quick scan around the CCAFS Climate-Smart Village AR4D sites of the CGIAR-CCAFS Research Program in 20 countries

Working Paper No. 208

CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)

Cor Wattel  
Marcel van Asseldonk



RESEARCH PROGRAM ON  
Climate Change,  
Agriculture and  
Food Security





# **Financial service supply with potential for supporting climate-smart agriculture**

**Quick scan around the CCAFS Climate-Smart  
Village AR4D sites of the CGIAR-CCAFS  
Research Program in 20 countries**

Working Paper No. 208

CGIAR Research Program on Climate Change,  
Agriculture and Food Security (CCAFS)

Cor Wattel<sup>1</sup>  
Marcel van Asseldonk<sup>1</sup>

<sup>1</sup> Wageningen Economic Research

**Correct citation:**

Wattel, C.J. & M.A.P.M. van Asseldonk, 2018. Financial service supply with potential for supporting climate-smart agriculture; Quick scan around the Climate-Smart Village AR4D sites of the CGIAR-CCAFS Research Program in 20 countries. CCAFS Working Paper no. 208. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org)

Titles in this Working Paper series aim to disseminate interim climate change, agriculture and food security research and practices and stimulate feedback from the scientific community.

This work was implemented as part of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT). The Program is carried out with funding by CGIAR Fund Donors, Australia (ACIAR), Ireland (Irish Aid), Netherlands (Ministry of Foreign Affairs), New Zealand Ministry of Foreign Affairs & Trade; Switzerland (SDC); Thailand; The UK Government (UK Aid); USA (USAID); The European Union (EU); and with technical support from The International Fund for Agricultural Development (IFAD).

**Contact:**

CCAFS Program Management Unit, Wageningen University & Research, Lumen building, Droevedaalsesteeg 3a, 6708 PB Wageningen, the Netherlands. Email: [ccafs@cgiar.org](mailto:ccafs@cgiar.org)

Creative Commons License



This Working Paper is licensed under a Creative Commons Attribution – NonCommercial–NoDerivs 3.0 Unported License.

Articles appearing in this publication may be freely quoted and reproduced provided the source is acknowledged. No use of this publication may be made for resale or other commercial purposes.

© 2018 CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).  
CCAFS Working Paper no. 208

**Photos and maps:** the maps in chapter 5 originate from CCAFS (2013) or from free resources like Google Maps, Wikipedia and Wikimedia Commons, unless otherwise indicated below the map.

**DISCLAIMER:**

This Working Paper has been prepared as an output for the CCAFS Flagship 2, Cluster of Activity 2.4 ‘Business models, incentives and innovative finance for scaling CSA’ (P248) under the CCAFS program and has not been peer reviewed. Any opinions stated herein are those of the author(s) and do not necessarily reflect the policies or opinions of CCAFS, donor agencies, or partners. The geographic designation employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of CCAFS concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

All images remain the sole property of their source and may not be used for any purpose without written permission of the source.

## **Abstract**

Climate-smart agriculture (CSA) requires new business models, as well as adapted financial services and incentives, in order to scale out. The present study makes an inventory of the financial services available around the Climate-Smart Village AR4D project sites of CCAFS in 20 countries. Based on web sources, it maps the most relevant financial service providers, in terms of geographical proximity, affinity to agriculture, smallholders and SMEs, and scale of operations. The study shows that some countries and project sites enjoy a reasonably wide range of financial services and providers that could be relevant for CSA scaling. Other sites however are more remote and distant from financial service providers. In a next phase of the project, case studies will be identified for further research into business models and financial services and incentives for CSA.

## **Keywords**

Financial institutions; credit; agricultural credit; agricultural banks; rural finance; agricultural finance; microfinance; savings; savings groups; agricultural insurance; climate-smart agriculture; climate change adaptation.

## About the authors

**Cor Wattel** (corresponding author), MSc, researcher at Wageningen Economic Research, Wageningen University & Research, the Netherlands Cor's main research interests lie in smallholder finance, rural economy and evaluation  
Email: [cor.wattel@wur.nl](mailto:cor.wattel@wur.nl)

**Marcel van Asseldonk**, PhD, senior scientist at Wageningen Economic Research, Wageningen University & Research, the Netherlands. Marcel's expertise lies in risk management, agricultural insurance and impact evaluation  
Email: [marcel.vanasseldonk@wur.nl](mailto:marcel.vanasseldonk@wur.nl)

Wageningen Economic Research  
(a research institute of Wageningen University & Research)  
Visiting address: Hollandseweg 1, 6706 KN Wageningen  
Postal address: P.O. Box 29703, 2502 LS The Hague  
The Netherlands  
[www.wur.eu/economic-research](http://www.wur.eu/economic-research)

## Acknowledgements

The research for this report was implemented as part of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), which is carried out with support from CGIAR Fund Donors and through bilateral funding agreements. For details please visit <https://ccafs.cgiar.org/donors>.

This report has greatly benefited from the comments and feedback by the Regional Program Leaders of CCAFS and their staff, especially Ana María Loboguerrero, Leo Sebastian, Mathieu Ouedraogo, John Recha and Arun Khatri-Chhetri. Also the comments of Alberto Millan at World Bank, Osana Bonilla-Findji from CCAFS Flagship 2 on Climate-Smart Agricultural Practices, and WUR colleagues Ruerd Ruben, Lan Ge, Annemarie Groot and Jan Hugo Nuijt were very useful to improve the document. The authors also acknowledge the support provided by Silvia Helena Castaño (CIAT) to produce the maps.

Obviously, the statements and conclusions formulated in this report are the sole responsibility of the authors.

## Preface

The agricultural sector is intimately interrelated with climate change. Agriculture is particularly vulnerable to climate change, as crops, livestock and fishery are vulnerable to temperature, water availability and extreme weather. At the same time the agricultural sector contributes significantly to climate change, with roughly a quarter of the global GHG emissions and the largest share of non-CO<sub>2</sub> GHG emissions (IPCC, 2014; Sadler et al., World Bank, 2016).

This two-fold relationship also implies a double challenge for the agricultural sector: to adapt to climate change while at the same time reducing its climate footprint. This is the central topic in the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). The overall purpose of CCAFS is to catalyse positive change towards climate-smart agriculture (CSA), food systems and landscapes, by combining the science and expertise of CGIAR and partners.

In 2011, Wageningen University & Research (WUR) hosted the Global Science Conference on Climate-Smart Agriculture. The conference served to agree on scientific priorities that would lead to climate-smart agriculture. These were laid down in the Wageningen Statement - Climate-Smart Agriculture - Science for Action. Since that moment, Wageningen University & Research has been working with various leading organisations on a global research agenda for Climate-Smart Agriculture. This is also reflected in a recent WUR position paper where climate change is linked into a coherent vision and economic research agenda on an inclusive and sustainable economy.

One of the research priorities is to explore how CSA can be scaled out, including more farmers, larger landscapes and more subsectors. Scaling out will require combinations of specific agricultural practices and technologies (context-specific), competence building for farmers and other stakeholders, financial services, incentives and business models tailored to smallholder farmers and SMEs, and an enabling policy environment. Research is needed to identify the most effective combinations of these elements.

The present study is intended to contribute to this field. It is one of the inventory studies of a project on ‘Business models, incentives and innovative finance for scaling climate-smart agriculture’ (2016-2021), which is being deployed in collaboration between CCAFS and WUR.

**Prof.dr.ir. J.A.G.J. van der Vorst**

General director Social Sciences Group  
Wageningen University and Research

# Contents

1.	Introduction.....	9
2.	Methodology .....	12
3.	Typology of financial services and products .....	16
4.	The 20 priority countries of the CCAFS Research Program .....	19
5.	Supply of financial services around the CSV AR4D sites of CCAFS.....	21
5.1	Latin America .....	21
5.2	West Africa .....	35
5.3	Eastern Africa .....	46
5.4	South Asia.....	56
5.5	South-East Asia.....	65
6.	Conclusions and perspectives .....	74
	Appendix I Ten useful data sources for measuring financial inclusion.....	78
	Appendix II CCAFS countries and CSV AR4D sites.....	79
	References.....	80
	Glossary .....	83

## **Acronyms**

AR4D	Agricultural Research for Development
ATM	Automated Teller Machines
BDS	Business development service
CCAFS	Research Program on Climate Change, Agriculture and Food Security of CGIAR
CGIAR	CGIAR is a global research partnership for a food-secure future
CSA	Climate-Smart Agriculture
CSV	Climate-Smart Village
FS	Financial Services
FSP	Financial Service Provider
GSMA	GSM Association
MFI	Microfinance Institution
MIMOSA	Microfinance Index of Market Outreach and Saturation
MNO	Mobile (phone) Network Operator
MSE	Micro and Small Enterprise
MSME	Micro Small and Medium Enterprise
NBFI	Non-bank financial institution
ROSCA	Rotating Savings and Credit Associations
SACCO	Savings and Credit Cooperative
SME	Small and Medium Enterprise
TA	Technical assistance
VSLA	Village Savings and Loans Association

# 1. Introduction

The present study is one of the preliminary studies for a multi-year international research project (2016 - 2021) on ‘Business models, incentives and innovative finance for scaling climate-smart agriculture (CSA)’. This project is part of the so-called Flagship 2 on Climate-Smart Technologies and Practices of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

The goals of the project are described in its strategy document, cited in the box below.

## **The challenge of scale in Climate-Smart Agriculture**

One of the key challenges facing Climate-Smart Agriculture (CSA) is scale. A key enabler for CSA adoption by smallholder male and female farmers and Small and Medium Enterprises (SMEs) is the access to sufficient and adequate finance along with the skills to use it well. Many of these farmers and SMEs today face increasing climate change and variability related challenges which require them to develop new approaches to farming and for example adopt new crops, new varieties and/or new soil and water conservation technologies. Lack of sufficient and adequate finance and/or lack of knowledge on (finance for) CSA prohibit smallholder farmers and SMEs to invest in CSA which ultimately hinders the scaling of it.

The project ‘Business models, incentives and innovative finance’ aims to address this issue by looking at how sufficient and adequate finance in combination with competence building can help smallholder farmers and SMEs to adopt CSA and run their farm as climate-smart business. Specifically, this project aims to develop context-specific knowledge on the factors and conditions which constitute an effective technical and financial package to scale up and scale out climate-smart agriculture.

(from: draft strategy document ‘Business models, incentives and innovative finance for scaling CSA’, Dec. 2016)

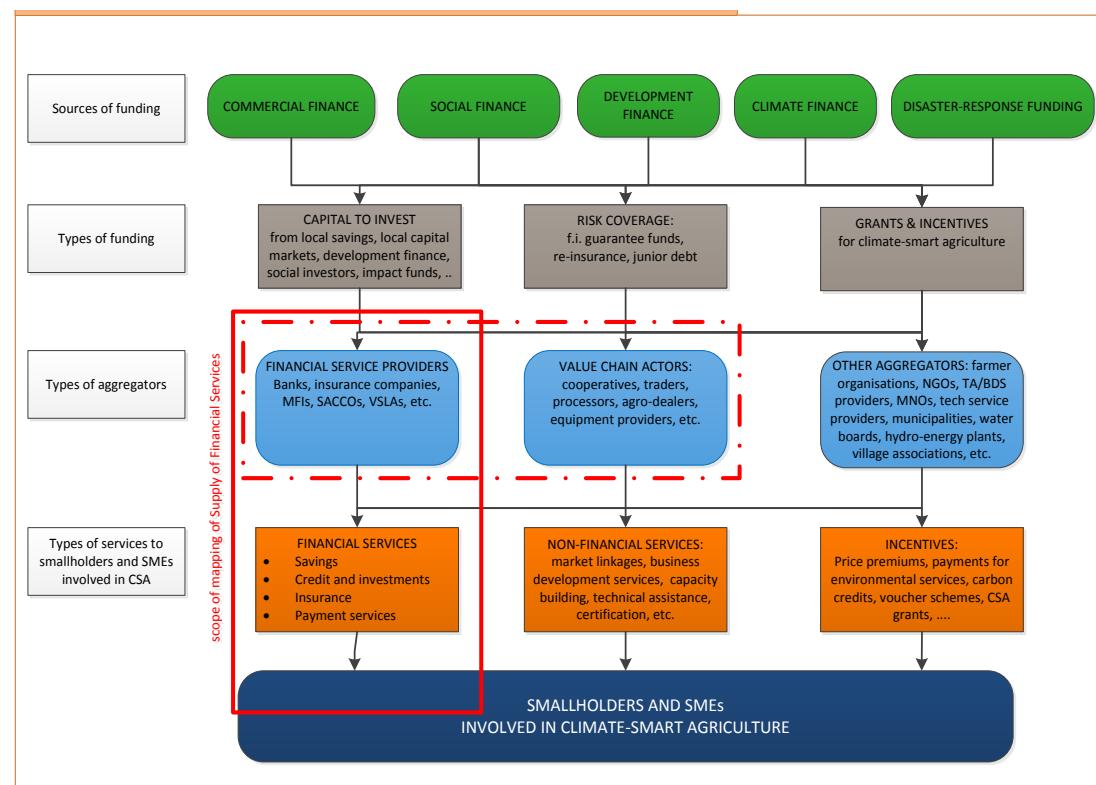
At the start of the project, three preliminary studies are carried out simultaneously by WUR:

- Mapping of the supply of financial services (the present study).
- An inventory of potential profitable and scalable CSA cases in the CCAFS priority areas.
- A survey ‘Understanding the demand for financial products and services in CSA in the CCAFS priority areas’. The demand survey is needed to understand the financial services that the farmers actually use, and to explore how these are related to climate-smart agricultural practices.

The three activities together will enable the research team to generate a shortlist of cases studies which will be carried out from 2017 onwards.

The present study entails mapping of the supply of financial products and services that are available through local financial service providers,<sup>1</sup> which could support smallholder farmers and SMEs to invest in CSA. Its objective is to map out the financial services available to smallholder farmers, specifically in the CCAFS CSV AR4D sites (see Appendix 2 for the sites, and CCAFS, 2016 for an explanation on the concept of AR4D).

**Figure 1.1. Financial services and incentives for Climate-Smart Agriculture**



Source: own elaboration

Figure 1.1 visualises the scope of the study. It summarises the different avenues by which different sources and types of finance, through different providers and aggregators, can make available bundles of services to smallholders and SMEs.

The present study focuses on the financial services locally available to farmers, mainly through financial service providers (the red-marked area in the figure). Some financial

<sup>1</sup>The study does not include **international social investors** or **impact investment funds**. Yet such funds may be indirectly present in the study, in cases where they finance local FSPs. The study also does not cover **venture capital funds for SMEs**, who often operate at national or subregional levels rather than locally, nor does it include **informal finance providers** who are difficult to map through a web-based desk study. Also **pension** providers are excluded from the study, as they are considered less relevant for smallholders and agri-SMEs.

services are offered through value-chain actors; these are referred to in general, without going into details of specific organisations and services.

The scope of the mapping is still broad at this stage, as the case inventory and the demand survey are still ongoing. The mapping covers all 20 countries where CCAFS is active, in five subcontinental regions. It sketches the supply of financial services from formal and informal sources, for smallholders (f/m) and SMEs, and for a wide variety of possible crops and agricultural practices. It aims to identify both the most relevant providers of financial services and the types of products and services available.

This global study will not yet be sufficient to match specific financial services and providers to specific CSA practices. Such a match can only be made through in-field exploration of specific cases, which will be done in a next phase of the project.

## **Structure of the report**

Chapter 2 lays out the methodology of the study.

Chapter 3 provides a general typology of financial products and services, and a typology of FS providers. It also indicates how the financial services mapped in this study relate to a wider domain of finance and business models for CSA, including climate finance, disaster-response funding, non-financial services and incentives.

Chapter 4 gives an overview of the 20 countries where CCAFS is active. The list of 36 CSV AR4D sites is given in Appendix 2.

Chapter 5 contains the core of the study: An overview per country of the most relevant financial service providers. For each provider a very brief profile is given, which gives an indication of their target clients, types of services and scale of activities.

Chapter 6 draws some general conclusions from the mapping, and provides a perspective on how to use this study in future next steps of the project.

## 2. Methodology

### General approach

The study was to serve a dual purpose: to help select field cases for research into finance and business models in CSA, and to support the further development of the selected cases. The study had to cover 20 countries in a relatively short time span.

With these objectives in mind, and taking account of the wide diversity of countries and contexts, a rather practical and factual style was adopted for this study. The focus lies on two questions:

- Which FS providers are available closest to the CCAFS CSV AR4D sites?
- What range of financial services do they offer for which types of clients?

The result is an ‘annotated longlist of FS providers’ for each country, which can be used as a point of departure for more in-depth analysis to develop the cases, once these have been selected.

The mapping was done through desk research of relevant databases and websites and was carried out in November/December 2016.

### Steps taken

As a first methodological step, we identified the **geographical location** of the 36 priority areas in 20 countries. The locations are shown in Chapter 3. Where possible, we used information from the CCAFS Site Portfolio, which covers West and East Africa and South Asia (Förch et al., 2013). It became clear that most of the locations were villages or districts in the rural periphery, far away from the larger urban centres. This would probably imply that the number of formal financial institutions would be limited, and that semi-formal and informal finance sources would be quite relevant to the smallholder farmers. The large numbers of countries to be covered, in a very limited time, would imply that the mapping would necessarily have a quick-scan character.

The second step was to draft a rough **typology of financial products and services and FS providers**. This would enable us to present the supply of finance in an accessible way. The typology is presented in Chapter 3 of this report. It includes formal, semi-formal and informal finance, covering savings, credit, insurance and payment services. The typology also briefly

refers to the domains of climate finance and disaster-relief funding, being potentially relevant to the business cases, but outside the scope of the FS supply mapping.

The third step was to make an **inventory of web-based sources** of information about the existence of FSPs in and around the 36 CCAFS locations. It turned out that systematic geodata on FS supply only exist for 10 out of the 20 countries. These countries are shown in Table 2.1. The main source of such geodata is the Finclusion Lab at the MixMarket.<sup>2</sup> For the other countries, FS supply information is only available at an aggregated national level, which makes it impossible at this stage to link the FS supply to the specific districts where CCAFS is active. Also it turned out that the Finclusion Lab data are not homogenous for all countries, for example, not all the countries with Finclusion Lab data show the names of the FS providers.<sup>3</sup>

**Table 2.1. Geodata on FS supply per case country.**

	With geodata on supply of FS	Without geodata on supply of FS
Latin America West Africa	Guatemala, Colombia, Perú Senegal, Ghana	El Salvador, Honduras, Nicaragua Mali, Burkina Faso, Niger
East Africa	Tanzania, Uganda, Kenya	Ethiopia
South Asia	India	Bangladesh, Nepal
South-East Asia	The Philippines	Vietnam, Lao PDR, Cambodia

For mobile money providers and community-based finance (Village Savings and Loans Associations (VSLA) and variants), we used the websites of the GSM Association (GSMA) and TheSavix respectively. These websites provide data at national level, without detail about regions or districts. For value-chain finance, we used the main crops of the region as a proxy of where value-chain finance could possibly be found; where possible, this information was taken from the CCAFS Site Portfolio (Förch et al., 2013).<sup>4</sup>

<sup>2</sup> In Appendix 1, we provide an overview of web sources about financial inclusion. About half of the sources is demand-oriented. Of the supply-oriented sources, only Finclusion Lab contains geodata at the level of departments and/or districts within a country.

<sup>3</sup> These limitations in availability of geo-data also imply that the unit of analysis for this study is not the same in all countries. For some countries we can present information about financial service providers at district level (very close to the CSV sites), whereas in others we can only do so at departmental or national level, only loosely linked to the SCV sites.

<sup>4</sup> For the case of value-chain finance, we limited ourselves to identifying the main value chains in the respective countries and regions. Any further exploration of value-chain finance options would require zooming into selected value chains and their actors, and connected to specific CSA practices. This can be done in a next phase of the project, when specific sites and cases have been selected.

## Mapping and presentation

Based on the above ingredients we elaborated the **mapping of FSPs** for each country:

- For *countries with geodata* on FSPs:
  - Listing financial service providers that are closest to the CSV areas;
  - Providing a very short profile of each FSP, that would enable the CCAFS team to start further explorations of financial services in the field, in the next phase of the project. These profiles are based on the websites of the FSPs themselves (if they have a website), and/or bibliographic material found on the web.
- For *countries without geodata* on FSPs, we used bibliographic material to get a quick insight into the financial landscape of the country and to identify the most relevant FSPs at a national level.
- Also for countries with more than one CCAFS priority locations, we necessarily kept the mapping at a national level, rather than making a district-specific FS mapping.

## FSP selection criteria

In this study we use three **criteria** to pre-select FS providers for CSA scaling initiatives:

### 1. *Proximity*

The physical distance between the financial service provider and the smallholders or SMEs should not be too large.<sup>5</sup> This is important for the FS provider, because they must be able to select reliable clients and to monitor their loans. And it is also important for the smallholders and SMEs, because they must be able to reach and visit the FS provider when they need them. The boundaries of proximity may be stretched with new technologies (mobile-phone-based) and innovative outreach models (mobile branches, travelling credit agents, agent banking). But for some financial services, mainly credit and financing, proximity remains crucial.

### 2. *Affinity*

Regardless of the physical distance, CSA requires financial institutions that have affinity with the agricultural sector and with environmental sustainability issues. Also, affinity with smallholders and SMEs is essential.

### 3. *Scale of operations*

To reach scale in CSA, it is important to work with FS providers or FS networks that offer a certain size, in terms of branch network and clients served.

<sup>5</sup> The maximum viable radius for an FSP office depends on the type of service and the quality and costs of the transport infrastructure. For an often used financial service, such as cash deposits and withdrawals, in an area with poor transport, an hour's walking distance (5 km) could be the maximum radius for an office. For an MFI with agents that visit the clients or groups by motorcycle, or a bank that operates a mobile branch network, a radius of 30-50 km would be the maximum.

## **Limitations**

The limitations of the assignment, combined with the wide spectrum of CSV locations, and the wide range of potential clients between smallholders and SMEs, implied that the information about FSPs and financial products remained quite superficial at this stage. Further steps can be made after the shortlist of field cases has been defined, and the demand side for financial services has been investigated (by means of a survey ‘Understanding the demand for financial products and services in CSA in the CCAFS priority areas’). At that stage, field missions will be necessary to explore viable finance solutions for specific CSA-related initiatives, in dialogue with CCAFS field teams, the farmers/SMEs, FSPs and other relevant stakeholders.

### 3. Typology of financial services and products

In this report,<sup>6</sup> we refer to *financial services* as a *general term* for all kinds of services around depositing and lending out of money, management of capital funds and money transactions, and buying and selling of financial risks (f.i. through insurance or credit guarantees). In the domain of international financial inclusion, financial services generally comprise credit,<sup>7</sup> savings, insurance, and payment services. We refer to a *financial product* as a *specific* financial service offer, tailored to a specific purpose and target market, and with a specific bundle of attributes (features, functions, benefits, costs and uses) (CGAP 2009). See Table 3.1 for a set of examples of financial services and products.

**Table 3.1. The four types of financial services, and some examples of financial products**

Credit & Financing services (Examples)	Saving services (example)
<i>Agricultural/rural loans</i>	
<ul style="list-style-type: none"> <li>• Agricultural input loans (or inputs on credit)</li> <li>• Crop loans</li> <li>• Loans for replanting/renovation (f.i. cocoa, coffee)</li> <li>• Equipment loans or leases</li> <li>• Warehouse receipt loans</li> <li>• Value-chain finance</li> <li>• Group loans</li> </ul>	<ul style="list-style-type: none"> <li>▪ Savings account</li> <li>▪ Term deposit</li> <li>▪ Planned savings (for a specific purpose, such as Christmas, Tabaski, school fees, etc.)</li> <li>▪ Informal savings (such as ROSCAs, susus, tontines)</li> </ul>
<i>SME loans</i>	
<ul style="list-style-type: none"> <li>• Working capital loans</li> <li>• Investment loans</li> <li>• Equity investments</li> <li>• Factoring</li> </ul>	
<i>Consumer loans</i>	
<ul style="list-style-type: none"> <li>• Housing, car, TV, freezer, school fees, education, etc</li> </ul>	
Insurance and other risk instruments (Examples)	Payment (Examples)
<ul style="list-style-type: none"> <li>▪ Insurance (life, health, accident, inventory, agricultural, etc.)</li> <li>▪ Funeral societies</li> <li>▪ Social security &amp; safety nets</li> <li>▪ Pensions</li> <li>▪ Credit guarantees</li> </ul>	<ul style="list-style-type: none"> <li>▪ Domestic transfers</li> <li>▪ International transfers (remittances)</li> <li>▪ Payment of utility bills (water, electricity, etc.)</li> <li>▪ Mobile money - e-wallets - digital finance</li> <li>▪ Community currencies</li> </ul>

<sup>6</sup>There are many different definitions of financial services and products, depending on the domain, context and specific legislation and regulation. We here chose a definition that is most relevant to the subject of climate-smart agriculture with smallholder farmers in developing countries.

<sup>7</sup>A somewhat broader definition would not only include credit, but also other types of financing such as leasing, factoring or equity investments.

At this stage it is too early to become specific about the types of financial services and products that could be relevant for scaling CSA activities. That topic will be further explored in the next phase of the project, when the case selection has been made and the cases are prepared.

In the country chapters in this report, we will use the following typology of financial service providers. We drafted this typology based on typologies used by the MixMarket ([www.themix.org](http://www.themix.org)), the national financial inclusion surveys of Finscope/Finacces, and the global study of Dalberg (2016) about farmer finance. The types are mutually exclusive and collectively exhaustive, except for the categories mentioned in footnote 1.

**Table 3.2. Typology of financial service providers.**

Type	Description	Example
Banks	Banks generally offer a wide range of financial services, from bank accounts, debit cards/credit cards, savings accounts, loans, transfers, bank services, and sometimes insurance. Clients range from consumers/households, to SMEs and corporate clients.	Commercial banks, (agricultural) development banks, rural banks, microfinance banks
MFIs	Microfinance institutions, offering credit and savings services, generally with a social objective. Clients are mostly low-income or lower-middle-income categories. They sometimes also act as agents for other services, such as transfers, debit cards, insurance	Non-Bank Financial Institutions (NBFI) (Financial) NGOs <i>(legal entity types may differ - for-profit or not-for-profit - according to national legislation)</i>
SACCOs	Savings and credit cooperatives, sometimes united into unions and/or federations. They sometimes also act as agents for other services, such as transfers, debit cards, insurance.	Credit Unions, Savings & Credit Cooperatives and their Unions/Federations
Community-based finance	Village-based savings & loans organisations. Very simple and small-scale savings & credit mechanisms that can be easily managed by large analphabetic rural populations.	VSLA/CARE Savings for Change/OXFAM Bancos comunales/FINCA
Value-chain finance	Finance originating from value-chain actors, such as trading and processing companies, marketing cooperatives or input dealers. According to a recent overview (Dalberg, 2016), about 1/3 of credit for smallholders is value-chain finance. Most of these loans originate in so-called tight value-chains, f.i. for export commodities or products that require quick processing after being harvested (f.i. milk).	Traders Processors Cooperatives Input dealers
Agents networks	Local shopkeepers that act as agent for a mobile money provider or a bank. They manage simple over-the-counter services, such as registration of accounts, sales of mobile phone credits, and smaller deposits and withdrawals.	Mobile money agents Agent banking
Agricultural insurance-related companies	Companies that develop or sell insurance products, and/or take insurance risks.	Insurance companies Insurance brokers Insurance retail agents
Informal finance providers	Persons or organisations that offer savings or loan agreements without reference or recourse to the legal system	Family/friends, moneylenders, tontines, funeral societies, pawnbrokers

## **Financial services, climate finance and disaster-relief funding**

In this study we focus on financial products and services, offered to smallholders and SMEs. These services may be supplied by specialised financial service providers, or by value-chain actors (processors, traders, cooperatives etc.). See the red-marked area in Figure 1.1, which visualises the domain of the present study.

In general, the financial services for smallholders and SMEs are financed by capital from commercial sources, as well as social finance sources (social investors, impact investors, development finance institutions). Some of these capital providers – upstream in the financial chain - can actively stimulate their investees to make their portfolios climate-smart: for example, some development finance institutions are making their agricultural loans to countries climate-smart (e.g. World Bank and ADB). At the same time, the business models for climate-smart agriculture may require a broader set of services for the farmers, combining financial services with incentives and non-financial services. In that light, two other sources of finance for smallholders and SMEs could be relevant, though outside the scope of this study: climate finance and disaster-response funding.

- **Climate Finance** refers to the flows of capital, from both public and private sources, that support and finance climate-smart investments in the agriculture sector and aim to achieve climate change adaptation and mitigation objectives. Sources of climate finance may be domestic national budgets, private sector, bilateral and multilateral actors, development finance institutions and impact and institutional investors among others (Sadler et al., World Bank, 2016).
- **Disaster-response funding** is applied to fund, from both public and private sources, a wide variety of programs that provide grants and other support to assist state and local governments, and private entities (e.g., smallholders) during disaster recovery. Such funds are intended to cover disaster-related damages that are uninsurable. Also they may be interested to invest in the prevention of (climate-related) disasters.

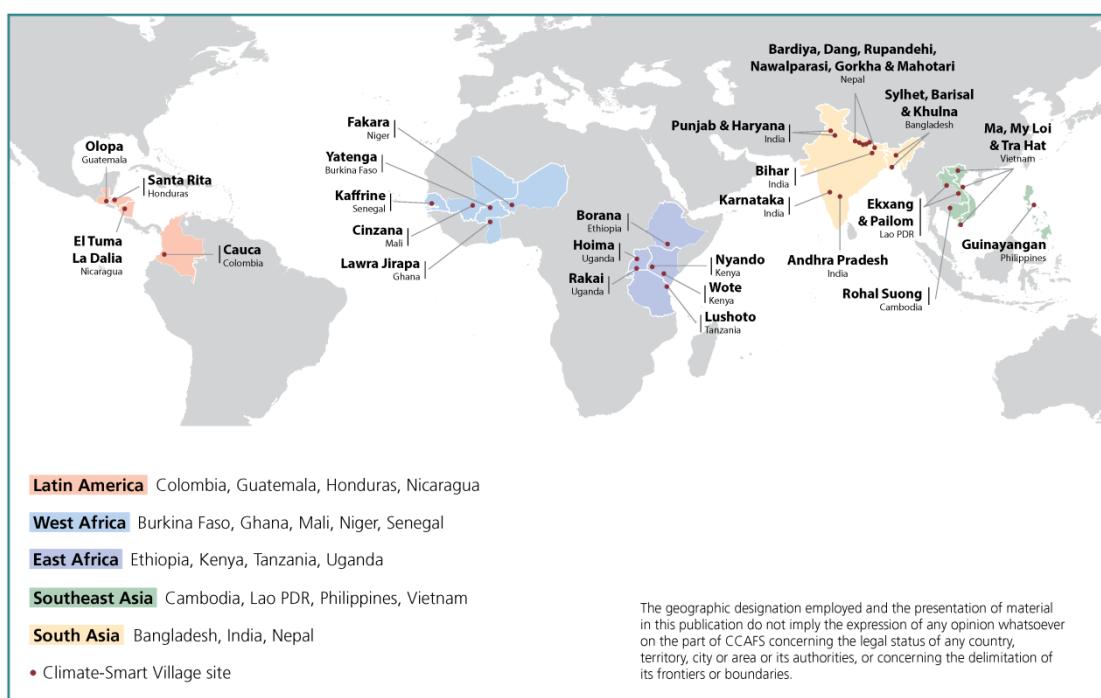
Climate finance and/or disaster-response funding may take the shape of a financial service, or may be channelled through financial service providers. Yet it may accept higher risk profiles, and leverage its resources with commercial capital ('blended finance'). Also, climate finance and disaster-response funding may generate revenue streams for the CSA business models, or may enable non-financial services or incentives for CSA.

See Figure 1.1 in chapter 1 for a conceptual overview of finance streams, including climate finance and disaster-response funding.

## 4. The 20 priority countries of the CCAFS Research Program

The map below shows the 20 countries where CCAFS is active. In many of the countries, CCAFS concentrates its activities in one district. But in South Asia, South-East Asia, Kenya and Uganda CCAFS is active in 2 to 5 districts per country. A complete list<sup>8</sup> of the 36 CSV AR4D sites can be found in Appendix 2.

**Figure 4.2. Location of 36 CCAFS-facilitated Climate-Smart Village AR4D sites, situation January 2017**



A CCAFS CSV AR4D site sometimes coincides with the administrative boundaries of a rural district or municipality. In other cases it is an agro-ecological zone, touching several administrative divisions. CCAFS works across all levels, from local/farm up to national, regional and global levels. The CSVs are the focus sites for participatory field testing of the CSV approach (co-development, testing and evaluation of technical and institutional CSA option). For more info: see [CSV AR4D Brochure](#)

<sup>8</sup> The list in Appendix 2 represents the situation by January 2017. Peru and El Salvador have been added to this study because they appeared on an earlier list, although in these countries no CCAFS activities seem to have been deployed so far. In some countries, CCAFS has added new CSV AR4D sites to its programme (f.i. Vietnam, India, Nepal).

Although in this report we will not go into detail about specific climate-smart practices and their financial requirements, it is useful to present at least a basic typology of climate-smart practices that are being tested in the CCAFS sites.

The figure below presents five types of climate-smart options, and some examples of each type. Obviously, each of these practices has its own consequences for the cash flow and cost-benefit profiles of the farm household, and thus for its financial needs and possible services to address these needs.

**Figure 4.2. Types of climate-smart options tested as part of the context-specific portfolios in the CCAFS AR4D Climate-Smart sites.**

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). Available online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org). Photo credits: N.Palmer (CIAT), C.Schubert (CCAFS), N.Palmer (CIAT) T.Mwaura (CCAFS).

## 5. Supply of financial services around the CSV AR4D sites of CCAFS

The regions and countries in this chapter are presented in geographic order, from West to East, and from North to South.

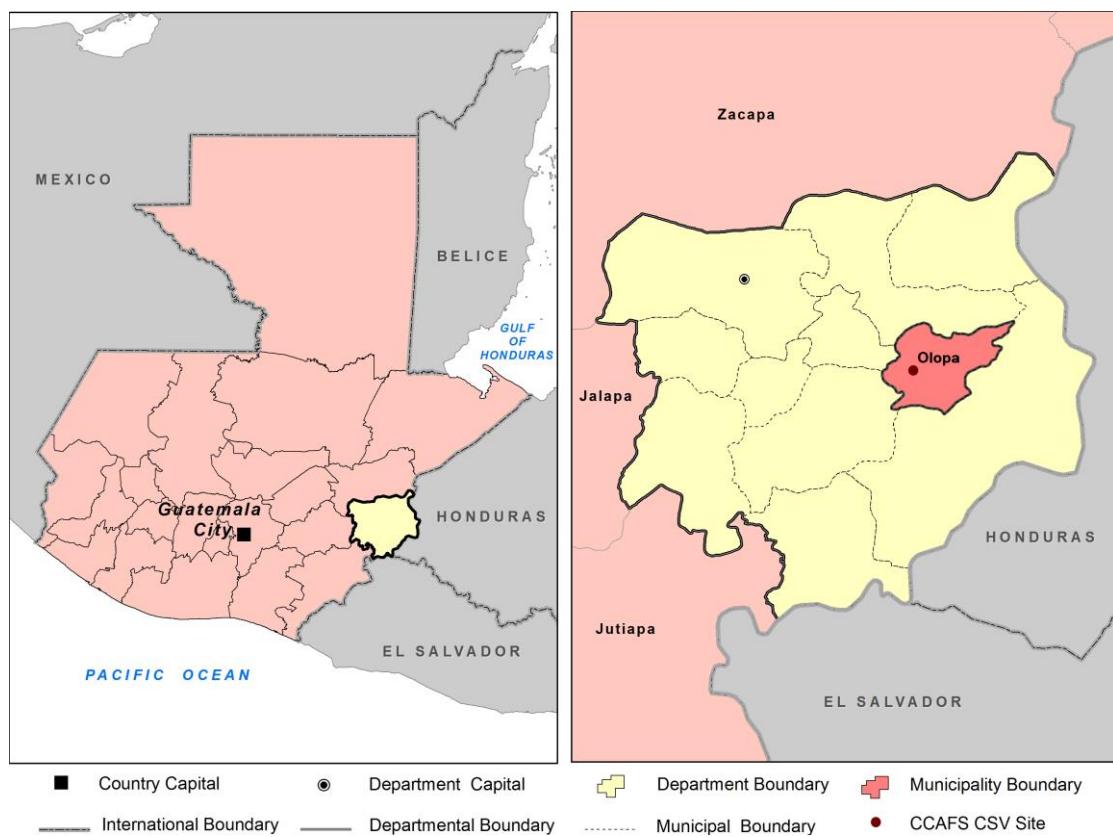
### 5.1 Latin America

In Latin America, CCAFS is active in the following countries: Guatemala, El Salvador, Honduras, Nicaragua, Colombia and Peru.

#### 5.1.1 Guatemala

In Guatemala, CCAFS is active in the rural municipality of Olopa, in the Chiquimula department in the East of the country, close to the border with Honduras (Figure 5.1.1). The total municipality counts 23,600 inhabitants, including the town of Olopa and 29 rural villages. Olopa is located at 21 km of the department's capital Chiquimula, a town of over 80,000 inhabitants.

**Figure 5.1.1. Guatemala: Municipality of Olopa in the Chiquimula Department.**



Although there are geodata available for Guatemala at the Finclusion Lab and the Financial Sector Deepening Trust, these data do not show the names of the financial service providers. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

#### **Banks** (with offices in Chiquimula):

- **Banco de Desarrollo Rural (BanRural)**: State bank for rural development, was restructured around 2000 to increase its sustainability and outreach.
- **Banco Agromercantil de Guatemala**: Commercial bank
- **Banco Industrial**: Commercial bank

#### **MFIs** (national level):

- **Genesis Empresarial**: Largest MFI in Guatemala, with about 89,000 borrowing clients. In the department of Chiquimula, it has offices in Chiquimula city, Esquipulas, Quetzaltepeque and Jocotán. It offers services for micro and small enterprise, as well as group loans and ‘bancos comunales’ (village banks). No explicit reference to agriculture.
- **Banco Compartamos GTM**: Second-largest MFI in Guatemala, in terms of clients (75,000). Subsidiary - created in 2011 - of the Mexican microfinance bank Compartamos. Offers group loans, some specific for women, and individual loans. Has an office in Chiquimula city. No explicit reference to agriculture.
- **FUNDEA (Fundación para el Desarrollo Empresarial y Agrícola)**: Mid-size MFI, with about 23,000 clients. Focuses on farmers and entrepreneurs in the rural area. Has no offices in Chiquimula.
- **Asociación SHARE**: NGO with a programme of ‘bancos comunales’ and individual loans. Not clear whether they have offices in Chiquimula. No explicit reference to agriculture.
- **FAFIDESS**: Mid-sized MFI with about 29,000 clients. No activities in Chiquimula.

#### **SACCOs** (in the Chiquimula department)

- Cooperativa Chiquimulja: SACCO, member of the MICOOPÉ network of the national SACCO federation FENACOAC. The MICOOPÉ system offers savings accounts, credits, debit cards, credit cards, remittances and insurance. Has 10 offices in the Chiquimula department.
- Coosajo: SACCO, member of the MICOOPÉ network of the national SACCO federation FENACOAC. The MICOOPÉ system offers savings accounts, credits, debit cards, credit cards, remittances and insurance. Has 9 offices in the Chiquimula department, including one in Olopa.

#### **Community-based finance** (national level):

In Guatemala, TheSavix does not report any village savings and loans associations (VSLA) or similar models.

On the other hand, so-called *bancos comunales* are promoted by several institutions, among them:

- CARE (international NGO)
- FAFIDESS - Fundación de Asesoría Financiera a Instituciones de Desarrollo y Servicio Social
- FUNDAP - Fundación para el Desarrollo Integral de Programas Socioeconómicos
- Genesis Empresarial
- Asociación SHARE de Guatemala

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS CSV AR4D sites.

#### **Value-chain finance:**

- The most common crops produced in the region are maize, beans, rice, potatoes, coffee, sugar cane, cacao, bananas and tobacco. Also cattle farms are present in the region, as well as mining (metals) and handicraft. To the extent that such value chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

#### **Agent networks**

- Mobile money services are offered in Guatemala by two providers: Bancamigo and Tigo Money.

#### **Agricultural insurance** (from Hatch et al., 2012):

- Two firms offer agricultural insurance in Guatemala: Agromercantil and G&T Continental. Modalities include variable performance-based investment insurance, individual crop insurance, production guarantees, livestock insurance, poultry insurance and aquaculture insurance. Variable performance-based investment insurance is the most common. This type of insurance compensates farmers for the difference between the insured yield of their crop and the actual yield obtained following an adverse event. Public and private firms are currently focused on weather-indexed insurance. Insurance is available for 25 crops.
- The government of Guatemala also supports the agricultural insurance market through the DaCrédito programme, which consists of a trust that is designed to facilitate access to credit for small and medium-sized producers. It includes a guaranty fund (to facilitate access to credit for small producers) and harvest insurance (the trust covers a high percentage of premium costs).

### **5.1.2 El Salvador**

In El Salvador, CCAFS has not yet decided about its priority regions of activity. Therefore, the supply of financial services for smallholders and SMEs is presented at national level.

#### **Banks and Financial companies:**

- **Banco de Fomento Agropecuario (BFA):** State bank for agricultural development. Offers savings accounts, debit cards, loans for agriculture and livestock, as well as microcredit. Operates through 12 agencies, covering most of the 14 departments of the country.
- **Banco Hipotecario:** Dedicates 14% of its loan portfolio to agriculture.
- **Banco Procredit:** Member of the Germany-based Procredit group, who bought the largest MFI Financiera Calpiá in 2004. Offers services for microenterprise and SMEs (including agriculture), as well as a wide range of other bank services. In its times, Financiera Calpiá dedicated 16% of its loan portfolio to agriculture.
- **Commercial banks:** Dedicates on average only 3% of their portfolio to agriculture. Among the most active in agriculture are:
  - Banco Cuscatlán
  - Banco Agrícola
  - Banco del Comercio

Wholesale banks offering loans to other financial intermediaries:

- **Banco Multisectorial de Inversiones (BMI):** Offers loans to financial companies, and to Cajas de Crédito and Bancos de Trabajadores of the FEDECREDITO network (see below). BMI has specific financing programs for agriculture and environment.
- **Banco de Desarrollo de El Salvador (Bandesal):** Development bank, offers wholesale lending for microenterprise and SMEs to financial intermediaries, as well as direct lending for medium-sized companies, and the National Guarantee Fund of El Salvador.

## **MFIs**

- **Enlace:** Second-largest MFI in El Salvador, NGO with 43,000 microfinance clients. Enlace offers loans to *bancos comunales* (also *bancos comunales* in agriculture), solidarity groups, individual clients. Works through 14 agencies.
- **Apoyo Integral:** Loans and savings association, with almost 19,000 clients. Offers services to micro and small enterprises, as well as consumers. Has a specific loan product for agriculture. Operates through a nation-wide network of agencies, and through about 500 express points (similar to service points of bank agents).
- **Credicampo:** CREDICAMPO DE RL CV is a cooperative providing financial services to micro and small entrepreneurs, and particularly to farmers in rural communities in the eastern part of the country. The foundation runs a network of five branches. Around 14,000 clients.
- **ASEI (Asociación Salvadoreña de Extensionistas Empresariales del INCAE):** NGO originating from alumni of the MBA program of INCAE. Offers group loans and individual loans, as well as loans for *bancos comunales*, aiming at microenterprises. Around 11,000 clients. No specific mention of agriculture on their website.
- **AMC:** Microfinance institution, spin-off of the network of Local Economic Development Associations (ADEL), promoted by the UN in the 1990s. Works through a network of 18 agencies, practically nation-wide. Offers loans (also for agriculture), remittances, savings accounts and credit cards.
- **Optima Servicios Financieros (former FINCA):** In 2016 FINCA International Holding transferred its services to Optima, a Salvadoran financial company. FINCA is an international microfinance network, oriented to the promotion of *bancos comunales*. Optima offers loans to micro, small and medium enterprise, agriculture, and consumers. Optima is present through 12 agencies throughout the country.

## **SACCOs:**

- **FEDECACES:** National federation of SACCOs, with 32 SACCOs affiliated. Provides financial services to its affiliated SACCOs: loans, central liquidity management, remittances, insurance. Also provides technical services to the SACCOs, such as inspections, audits, training. Its target clients are salary workers, micro and small enterprise, women and professionals.
- **FEDECREDITO:** Member of the World Savings Banks Association (WSBI). Federation of the so-called Cajas de Crédito and Bancos de Trabajadores (BT), with a member base of 48 Cajas and 7 BTs, 520 service points and a total of over 500,000 affiliated clients. Created halfway the 20th century by initiative of the state, as a system for rural credit. Privatised in 1991. The Cajas and BTs offer a broad array of financial services, for consumers, microenterprise and SMEs, as well as farmers.

## **Community-based finance**

In El Salvador, TheSavix does not report any village savings and loans associations (VSLA) or similar models.

On the other hand, so-called *bancos comunales* are promoted by several institutions, among them:

- ASEI, CAM, Enlace, Asaprosar, Optima/Finca

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS CSV AR4D sites.

## **Value-chain finance**

- Once the CSV AR4D site(s) of CCAFS is (are) chosen, the main value-chains can be identified. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### Agent networks

- Mobile money services in El Salvador are offered by two providers: m-banco and Tigo Money.
- Bank agents have been authorised in 2013, and the network is growing fast. Banks with agent networks are Banco Agrícola (the agents are called Banco Amigo), and FEDECREDITO.

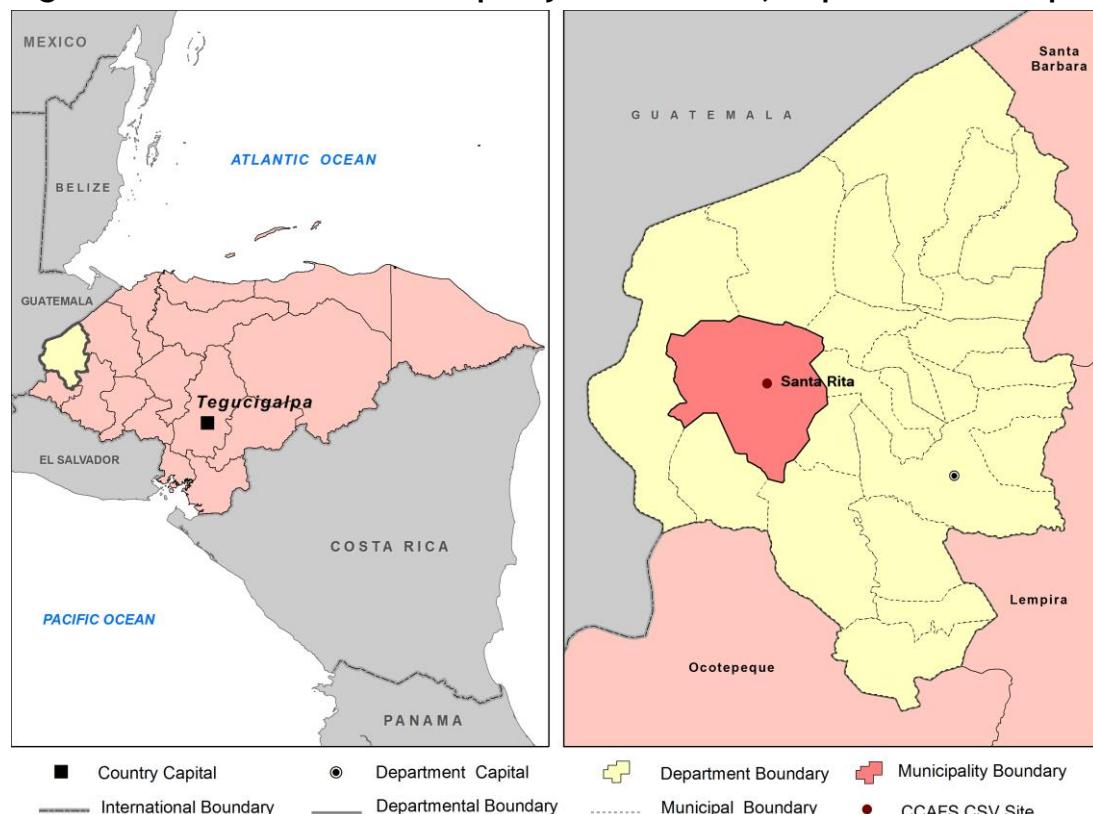
### Agricultural insurance (from Hatch et al., 2012):

- Agricultural insurance was introduced to El Salvador in 2001, as a result of the damage caused by hurricane Mitch and the El Niño phenomenon. The government responded by creating an insurance subsidy programme to revitalise cotton production. The programme subsidised 50% of premium charges.
- Two insurance firms are active in the country, offering multi-peril insurance, investment insurance and individual crop insurance. Agricultural insurance programmes in El Salvador have also been supported by international insurers - primarily the Mexican firm PROAGRO. The penetration of agricultural insurance is still quite low (estimated at less than 1% in 2011).

### 5.1.3 Honduras

In Honduras, CCAFS is active in the municipality of Santa Rita, in the western department of Copán, close to the archaeological-touristic site of Copán Ruinas and the border with Guatemala (Figure 5.1.3). The nearest market town is La Entrada (14,000 inhabitants), at 56 km east of Santa Rita. The departmental capital city Santa Rosa de Copán lies at 95 km distance and San Pedro Sula, the second-largest of Honduras, is a 175 km drive.

**Figure 5.1.3. Honduras: Municipality of Santa Rita, Department of Copán.**



There are no geodata available on microfinance supply in Honduras. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

### Banks

- **Ban Rural:** Subsidiary of the Guatemalan development bank BanRural, started operations in Honduras in 2014. Focuses on micro, small and medium enterprise and agriculture. Closest offices in Copán Ruinas and La Entrada.
- **Banco de Occidente:** Commercial bank, quite active in agriculture, and with its roots in the Copán department. Offices in Copán Ruinas, Dulce Nombre de Copán and Santa Rosa de Copán.
- **Banco Hondureño del Café (BANHCAFE):** Commercial bank, quite active in agriculture. Offices in Santa Rosa de Copán.
- **Banco de los Trabajadores:** Development bank for low-income households, created in the 1960s. No offices in the Copán department (closest in San Pedro Sula).
- **Banco Popular:** Commercial bank, office in La Entrada and Santa Rosa de Copán. Offers services for microenterprise and SME. Partner of several Development Finance Institutions (DFIs), such as IFC, BCIE, FMO, BIO.
- **Banco Atlántida:** Commercial bank, offices in Copán Ruinas, La Entrada and Santa Rosa.
- **Banco FICOHSA:** Commercial bank, office in Santa Rosa de Copán.
- **Banco del País:** Commercial bank, office in Santa Rosa de Copán.

### MFIs (largest MFIs at national level)

- **Hermandad de Honduras:** microfinance foundation oriented to agriculture and farmers, with different savings and loans products. Around 40,000 savings clients and 21,000 credit clients. Offices in Copán Ruinas, Santa Rita, La Entrada, Dulce Nombre de Copán, Santa Rosa de Copán.
- **Financiera FINCA Honduras:** Offers savings and credits (groups credits *for bancos comunales*, agriculture and solidarity groups, and individual credits including for agriculture). Office in La Entrada and Santa Rosa de Copán.
- **ODEF Financiera:** Microfinance company. Offers savings, credit,(for microenterprise, farmers, households, group loans). Around 82,000 clients. Offices in Santa Rosa de Copán.
- **FINSOL:** Offers savings and credits (for consumers, SME, farmers). Around 9350 clients. Nearest Office in La Flecha, Sta Bárbara.
- **FAMA OPDF:** Offers savings, credits (bancos comunales, solidarity groups, individuals, including for agriculture). Around 14,000 clients. Nearest office in Macuelizo, Sta Bárbara.

### SACCOs

- **Cooperativa de Ahorro y Crédito Ocotepeque:** large savings & credit cooperative, based in the neighbouring department of Ocotepeque, and with a dense office network in Western Honduras. It has an agency in La Entrada, and a smaller service point in Santa Rita de Copán. The cooperative is not specifically oriented to agriculture or rural activities, but offers rather general savings and loans services. Members can also deposit or withdraw money at other offices of the cooperative, or in other cooperatives throughout Honduras via the Unired/FACACH network.
- **FACACH - Federación de Cooperativas de Ahorro y Crédito de Honduras:** SACCO federation of Honduras. 87 affiliated cooperatives, with 845,000 members in total, and 215 service points. Apart from the Cooperativa Ocotepeque (see above), there is another SACCO in Santa Rosa de Copán (CAC Nueva Vida R.L.).

### **Community-based finance**

In Honduras, TheSavix does not report any village savings and loans associations (VSLA) or similar. On the other hand, so-called *bancos comunales* are promoted by several institutions, among them:

- Financiera FINCA de Honduras
- ADICH (NGO) - Asociación para el Desarrollo Integral Comunitario de Honduras
- FAMA OPDF – Familia y Medio Ambiente/ Organización Privada de Desarrollo Financiero
- Pastoral Social/Caritas
- PROCAFOR - Programa Regional Forestal de Centroamérica/ Finnish Development Cooperation

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS CSV AR4D sites.

### **Value-chain finance**

- The most common crops produced in the region are coffee, food grains (maize, beans), as well as livestock. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### **Agent networks**

- Mobile money services in Honduras are offered by one provider: Tigo Money.

### **Agricultural insurance** (from Hatch et al., 2012)

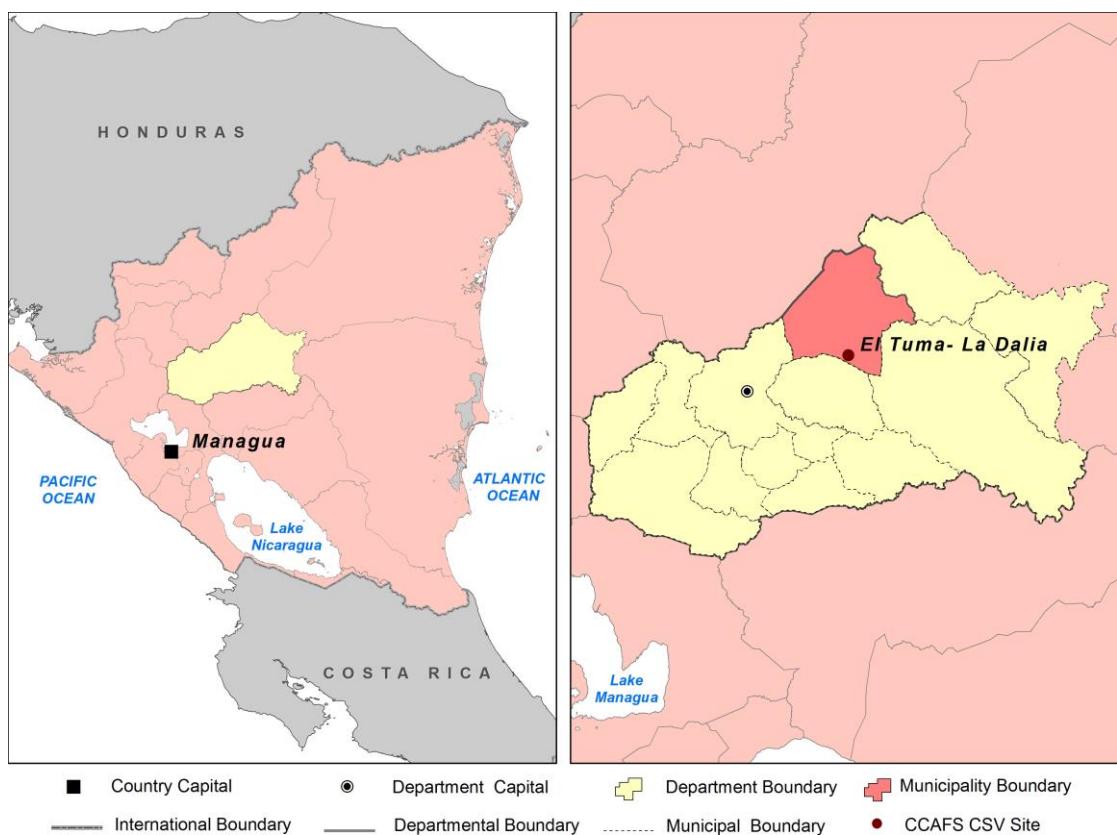
- The state has installed an Agricultural Insurance Committee (CSA), as an intersectoral agency attached to the Ministry of Agriculture. CSA is responsible for overseeing the country's National Agricultural Insurance Development Policy. Agricultural insurance is provided by three companies: Equidad, Interamericana de Seguros, and Seguros Atlántida.

### **5.1.4 Nicaragua**

In Nicaragua, CCAFS is active in municipality of El Tuma - La Dalia, in the northern department of Matagalpa (Figure 5.1.4). The town of La Dalia (8,000 inhabitants) lies at 43 km distance from the departmental capital Matagalpa (150,000 inhabitants).

There are no geodata available on microfinance supply in Nicaragua. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

**Figure 5.1.4. Nicaragua: Municipality of El Tuma-La Dalia, Department of Matagalpa.**



## Banks

- **Banco de Fomento a la Producción (BFP):** State-owned development bank. Created in 2007 by merging the national development bank Fondo de Inversiones (FNI) with the Rural Credit Fund (FCR). Provides direct and indirect finance to productive sectors, including agriculture. Indirect loans reach the clients through financial intermediaries, such as MFIs and cooperatives. Office in Matagalpa.
- **Banco LAFISE/Bancentro:** Commercial bank, Office in Matagalpa. No specific mention of agriculture on their website.
- **Banpro (Grupo Promérica):** Commercial bank. Office in Matagalpa. Offers loans for all sectors, including agriculture. Has a bank agent programme ('Agente BanPro'), with presence in La Dalia through (agricultural) trading companies.
- **Banco Procredit:** see below for a short description
- **Banco de Finanzas (BDF):** Commercial bank. Office in Matagalpa. No specific mention of agriculture on their website.
- **Banco de América Central (BAC):** Commercial bank. No specific mention of agriculture on their website, but has services for SMEs.

**Financial Capital:** Financial company focused on SME financing.

## MFIs (largest MFIs at national level)

- **Financiera FDL - Fondo Desarrollo Local:** About 42,000 clients. Focus on rural areas and agriculture. Works through 38 offices.
- **Financiera FAMA:** Around 53,000 clients. Offers credit for microenterprise, SME, employees and households. No specific reference to agriculture on their website. Office in Matagalpa.

- **Financiera FINCA Nicaragua:** Around 45,000 clients. Offers loans for groups (among others bancos comunales) as well as individuals (agriculture, SME, microenterprise). Office in Matagalpa.
- **Banco ProCredit:** Member of the international ProCredit group, based in Germany. Largest MFI in terms of loans and savings portfolio, but the number of clients is not published. Offers savings accounts, as well as loans for various purposes, including agriculture and green environment. Office in Matagalpa.
- **Financiera FUNDESER:** Almost 17,000 clients. Offers loans for microenterprise, SME, agriculture and livestock, and housing. Offices in La Dalia (!) and Matagalpa.
- **Pro Mujer:** Member of the Latin American Pro Mujer network (5 countries), based in Bolivia. Focus on women's entrepreneurship. Offers group loans (*bancos comunales*) and individual loans (for personal purposes, housing and agriculture). About 50,000 clients, exclusively female. Office in Matagalpa.
- **Fundenuse:** About 25,000 clients. Offers group solidarity loans, as well as individual loans (including several agricultural loans, f.i. for coffee, cattle, food grains). Office in Matagalpa.

#### SACCOs

- **CARUNA:** Savings and credit cooperative, operating at national level, with offices in the departments. Offers savings accounts, as well as loans for several sectors, including agriculture and livestock. Works through 34 offices in the country, plus 30 affiliated SACCOs, and has about 50,000 members. Office in Matagalpa.

#### Community-based finance

In Nicaragua, TheSavix hardly reports any village savings and loans associations (VSLA) or similar models, apart from a very small project by PCI with a total of 500 members.

On the other hand, so-called *bancos comunales* are promoted by several institutions, among them:

- Pro Mujer
- Financiera FINCA
- Prestanic
- FUMDEC – Fundación Mujer y Desarrollo Económico Comunitario

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS CSV AR4D sites.

#### Value-chain finance

- The most common agricultural activities in the Matagalpa department are food grains (maize, beans), coffee, cattle and horticulture. (Specific information on El Tuma - La Dalia is not available on the website). To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

#### Agent networks

- Mobile money services in Nicaragua are offered by two providers: Billetera Móvil and mPeso.

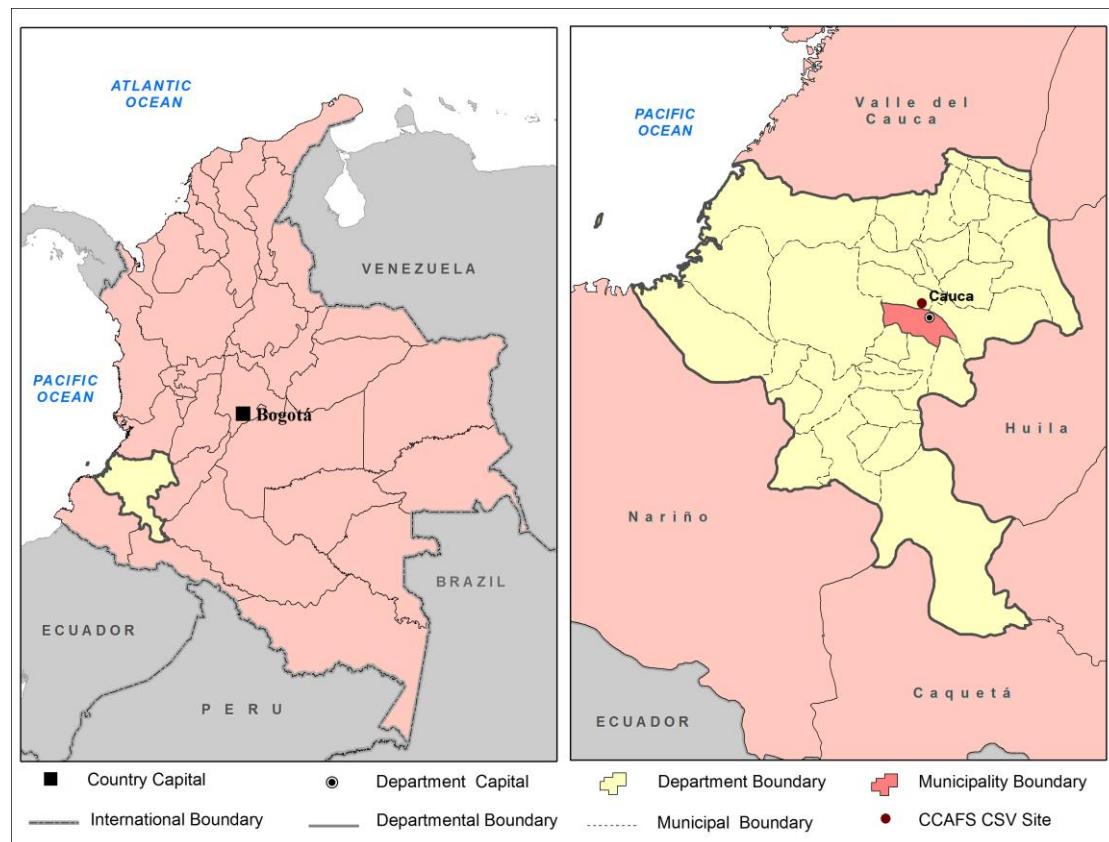
#### Agricultural insurance (from Hatch et al., 2012)

- Microinsurance became available in September 2011, with the introduction of a 'life microinsurance policy' issued by the Nicaraguan Insurance and Reinsurance Corporation (INISER). Seguros Latin American Financial Services (LAFISE) has also begun providing agricultural insurance services. Insured crops include peanuts and irrigated rice. In 2006, INISER implemented a Weather Index Agricultural Insurance Program. The programme's first initiative was a project to benefit peanut farmers belonging to the APROMANI Association. In 2008, it was expanded to include irrigated rice, corn and sesame.

### 5.1.5 Colombia

In Colombia, CCAFS is active in the Cauca department in the South-West of the country. The CSV AR4D site for CCAFS is located in the rural area of the department's capital city, Popayán, which has 277,000 inhabitants (Figure 5.1.5).

**Figure 5.1.5. Colombia: Municipality of Popayán, Cauca Department**



In the department of Cauca, the following financial institutions are represented (according to Finclusion Lab):

**Banks** (banks in the Cauca department, starting with the bank with the largest agent network):

- Development banks:
  - **Banco Agrario:** State-owned development bank, created in 1999. Finances 40 different crops. In 2014 it launched AgroAgil, a product for fast and efficient access of smallholders to credit
  - **Banco Caja Social (BCSC):** Social development bank created in 1911. Offers savings and credit, for microenterprise and SMEs, as well as consumer (f.i. personal loans and housing). Has over 700,000 clients.
- Commercial banks:
  - **AV Villas:** Commercial bank with the largest network of service points (agencies etc).
  - **Bancolombia:** Commercial bank. Has specific credits for coffee and sugar cane.
  - **BBVA Colombia:** Commercial bank. No specific reference to agriculture on their website.

- **Banco de Bogotá:** Commercial bank. No specific reference to agriculture on their website.
- **Banco Davivienda:** Commercial bank. Also offers services for agriculture and SMEs.
- **Banco de Occidente:** Commercial bank. No specific reference to agriculture on their website.
- **Citibank:** Commercial bank. Also offers services for SMEs.
- **Banco Colpatria:** commercial bank. Also offers services for SMEs and microcredit.
- **SERFINANSA:** Commercial bank. No specific reference to agriculture on their website.
- **Banco Popular:** Commercial bank, privatised from being a state bank in 1996. Also offers microcredit, among many other products. No specific reference to agriculture on their website.
- **Banco Corpbanca:** Commercial bank. Also offers services for SMEs. No specific reference to agriculture on their website.
- **Banco GNB Sudameris:** Commercial bank. No specific reference to agriculture on their website.
- **Bancoomeva:** Commercial bank. Also offers services for SMEs. No specific reference to agriculture on their website.

**MFIs and microfinance banks:** MFIs do only partially appear on the Finclusion site. We here present the largest MFIs on the country according to MixMarket, plus excellent MFIs according to MixMarket. We excluded MFIs that are explicitly not working in Cauca:

- **Banco Caja Social:** See above.
- **FMM (Fundación Mundo Mujer) Popayán:** FMM is a large MFI, with over 500,000 clients at national level. Member of the international network of Women's World Banking. Focuses on women entrepreneurship, including in agriculture. Headquarters in Popayán, in the Cauca department.
- **Fundación de la Mujer:** Offers savings and loans (also several specific products for agriculture). 318,000 clients.
- **Confiar:** Financial cooperative, with about 50,000 members. Offers microcredit and savings, but no specific products for agriculture.
- **BancoWWB:** Headquarters in Cali, member of the international network of Women's World Banking. Offers savings and credit (for microenterprise and consumers), no specific services mentioned for agriculture. Over 200,000 clients. Has 6 offices in the Cauca department, including 2 in Popayán.
- **Bancompartir:** Offers savings as well as credits for consumers and for micro and small enterprise. No specific mention of agricultural products. 124,000 clients. Office in Popayán.
- **Bancamía:** Over 350,000 clients. Offers savings as well as several credit products, for micro and small enterprise, also rural (not specifically agricultural). Has 3 offices in Cauca, including 2 in Popayán.

### SACCOs

- **COASMEDAS:** SACCO with national coverage. Mostly focused on consumers and employees. No specific services mentioned for agriculture. Office in Popayán.
- **COONFIE:** Regional SACCO, based in Neiva (Huilla department), and with an office in Popayán. Seems focused on consumers and employees. No specific services mentioned for agriculture.

### Community-based finance

In Colombia, village savings and loans associations (VSLA) or similar models are promoted by:

- IED, with a total of about 5,950 groups and 88,000 members.

On the other hand, so-called *bancos comunales* are promoted by several institutions, among them:

- Banca de las Oportunidades (a programme of Bancoldex bank for poverty outreach)
- Fundación Agape

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS CSV AR4D sites.

### **Value-chain finance**

- The most common crops produced in the region are food grains (maize, beans), sugar cane, coffee, potatoes, cassava, agave, tomatoes, blackberry and asparagus. Cattle and forestry are also quite important, as well as coca. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### **Agent networks**

- Mobile money services are offered by five providers: Ahorro a la Mano, DaviPlata, DDDedo, PlataMovil and Transfer Aval.
- Bank agents are quite relevant in Colombia. In the Cauca department, there are about 1700 bank agent service points, against 117 bank branches. Agent banking is usually done through alliances with commercial companies (supermarkets etc) with a wide network of outlets.

### **Agricultural insurance** (from Hatch et al., 2012):

- Colombia possesses a type of multi-peril insurance against excessive or insufficient rainfall, strong winds, flooding, frost damage, hailstorms, landslides and climate-related avalanches. New regulations also cover natural and biological risks, which are regulated specifically for each crop by the Ministry of Agriculture and Rural Development. According to data compiled by the Ministry of Agriculture and Rural Development, the country's primary insured crops are bananas (40%), corn (23%), rice (12%), cotton (9%) and tobacco (8%). The remaining 8% consists of sorghum, peanuts, plantains and forest species.
- The National Agricultural Risk Fund has been in operation since 1993, under the management of the Agricultural Credit Fund (FINAGRO). The National Agricultural Risk Fund provides funding for the Annual Agricultural Insurance Plan, which subsidises up to 60% of net premium value.
- In 2011, the Government of Colombia, acting through the Ministry of Agriculture and Rural Development, began promoting the use and expansion of agricultural insurance.

## **5.1.6 Peru**

In Peru, CCAFS has not yet decided about its priority regions of activity. Therefore, the supply of financial services for smallholders and SMEs is presented at national level.

### **Banks:**

- **Banco Agropecuario (AgroBanco):** One of the largest funders of agriculture in Perú, with a quarter of all bank financing to agriculture. Works among others through agreements with NGOs, companies, producer associations and municipalities.
- **Corporación Financiera de Desarrollo (COFIDE):** Runs a programme on rural entrepreneurship (PRIDER), with local savings and credit groups, value-chain contracts, agribusiness companies, financial institutions and local development associations.
- **Commercial banks:** Among the most active in agriculture are:
  - **Banco de Crédito del Perú:** Commercial bank. Invests in microfinance through its subsidiary MiBanco (see below).

### **MFIs (largest in the country):**

- **MiBanco:** Largest MFI in the country, emerged from the merger in 2014 of two leading MFIs: EDPYME Edyficar and MiBanco. Is a subsidiary of Banco de Crédito del Perú. Has over 870,000 clients, through 223 offices and a wide network of bank agents (supermarkets etc.). Offers savings accounts and loans (for micro and small enterprise, rural credit, agriculture, as well as consumers and employees).
- **Creditscotia:** About 630,000 clients. Offers savings accounts, debit and credit cards, credits, and other services. Aiming at consumers and micro and small enterprise. No specific mention of agricultural products.
- **Financiera Confianza:** About 213,000 clients. Focuses on consumers, microenterprise and SME, including for agriculture.
- **Compartamos Financiera:** Subsidiary of the Mexican microfinance bank Compartamos, and was sold in 2015 to the Mexican investment company Gentera. About 270,000 clients, mostly in Lima and Arequipa.
- **Financiera Efectiva:** Over 290,000 clients. Focused on consumer finance.
- **EDPYME Raíz:** Taken over by Caja Rural Chavín in 2016. Offers mainly consumer finance and working capital for small enterprise. No mention of agriculture. About 91,000 clients.
- **Financiera Credinka (former Financiera Nueva Visión):** Focuses on consumers and micro and small enterprise. No specific mention of agriculture. Roughly 60,000 clients.
- **EDPYME Alternativa:** MFI in the North of the country, with 13 offices. Offers specific loans for SMEs, rural/agricultural credit, and consumer loans.
- **Credivision:** Offers savings, as well as group loans and individual loans (including agriculture). Almost 8,000 clients.

### **SACCOs and similar entities:**

- **Cajas Municipales de Ahorro y Crédito (CMAC):** CMACs are savings and credit institutions created by the municipality, mostly in the provincial capital cities. There are 11 CMACs in the country, with a total of more than 28,000 service points through a system of agents. According to Mixmarket figures, they have a total of about 4m clients/members, which would make them the largest microfinance sector in Peru. They are focused on micro and small enterprise, as well as consumers and employees. No specific focus on agriculture or farmers. The CMACs are united in the national federation FEPCMAG.
- **Cajas Rurales:** A type of rural SACCO, aimed at smallholder farmers. There are 10 Cajas Rurales in the country, several of them suffering profitability problems.
- **CREDICOOP:** Cooperative active in the South and Centre of the country. Offers savings and loans to consumers, SMEs, farmers, as well as group loans.

### **Community-based finance:**

In Peru, village savings and loans associations (VSLA) or similar models are promoted at quite a modest scale, by:

- Catholic Relief Services
- Freedom from Hunger

The total membership is almost 2200 members in about 230 groups.

On the other hand, so-called *bancos comunales* are promoted by several institutions, among them:

- FINCA Peru
- ADRA Peru
- ECLOF Peru

The NGO network PROMUC, which affiliates 16 NGOs that promote *bancos comunales*, estimates that there are currently about 12,000 *bancos comunales* in Peru, with a total of 180,000 members, in majority women.

### **Value-chain finance**

- Once the CSV AR4D site(s) of CCAFS is (are) chosen, the main value-chains can be identified. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### **Agent networks**

- Mobile money services are offered by two providers: BIM and Tu Dinero Móvil.

### **Agricultural insurance** (from Hatch et al., 2012)

- Agricultural insurance in Peru is subsidised by FOGASA, an agency attached to the Ministry of Agriculture. In 2012, the government allocated approximately USD 10m to FOGASA, to reduce the exposure of farmers in vulnerable areas to climate variations during the 2011-2012 crop.
- Agricultural disaster insurance in Peru is designed to benefit small farmers living in extreme poverty. It is offered in rural communities, for crops such as rice, corn, potatoes and cotton. Coverage includes drought, excessive rainfall, strong winds, frost damage and flooding. Producers organise themselves collectively to receive insurance. Payouts are awarded when the aggregate yield obtained by farmers is lower than that specified in the policy.
- In 2008, an area-yield index insurance scheme was implemented as a pilot project for cotton farmers in the Ica Valley. Under this system, payouts are awarded when the average yield of the insured crop in a community is lower than the yield established by the policy.

## 5.2 West Africa

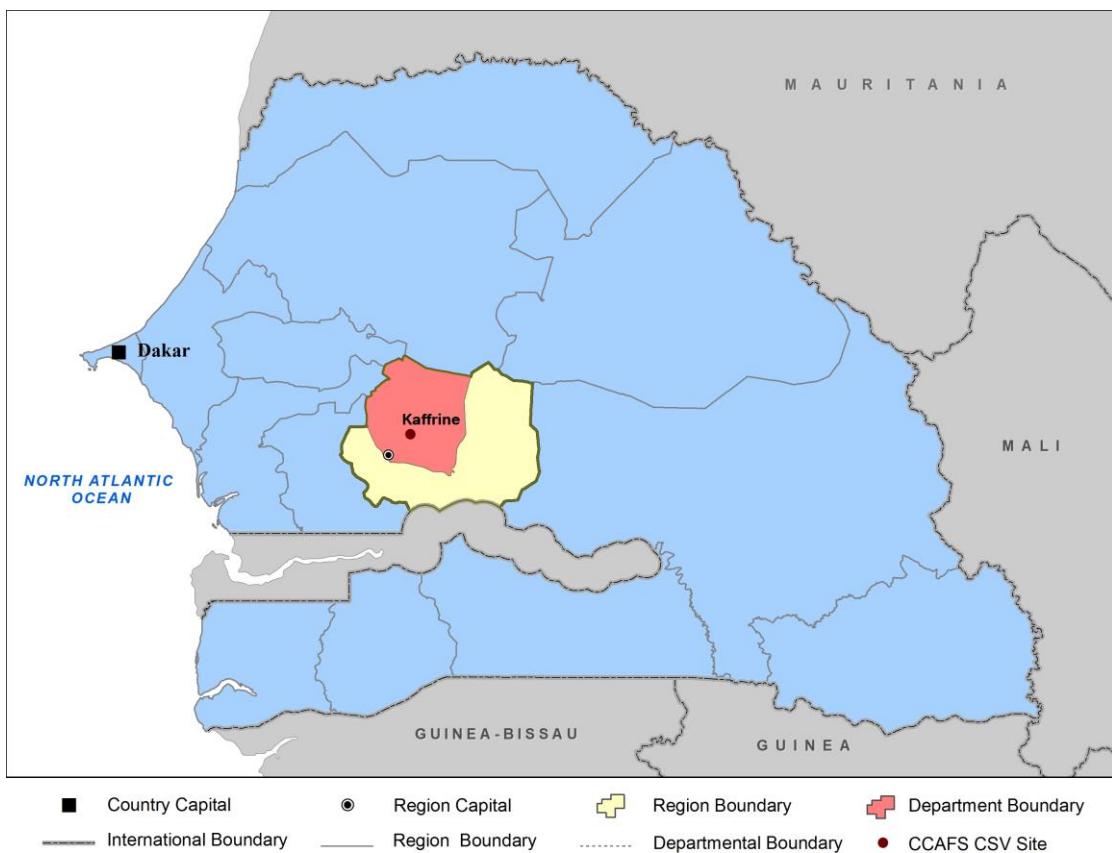
In West Africa, CCAFS is active in Senegal, Mali, Burkina Faso, Niger and Ghana.

### 5.2.1 Senegal

In Senegal, CCAFS' site is located within the department of Kaffrine, which is one of the four departments of the wider Kaffrine region (Figure 5.2.1). The department's capital, the town of Kaffrine, is a town of about 40,000 citizens. The closest larger city is Kaolack, at about 60 km West of Kaffrine. Kaolack has 234,000 inhabitants, which is 6 times as large as Kaffrine.

Kaolack is the economic centre of the region and harbours a wider range of financial institutions than Kaffrine.

**Figure 5.2.1. Senegal: Kaffrine Region**



In the town of Kaffrine, the following financial institutions are represented:

#### Banks:

- **CNCAS**, the country's national agricultural bank. It has an office in Kaffrine. CNCAS has several special purpose funds, with foreign or public financing, to provide loans to agriculture, livestock, fishermen and SMEs. With its own resources it finances salaried workers and SMEs (short and long term). They do not offer microcredits themselves, but finance microloans indirectly through MFIs. Apart from credits, CNCAS offers bank accounts, savings accounts and money transfers.
- Another 8 commercial banks are represented in the city of Kaolack.

### **MFIs:**

- **CMS**, the largest MFI of the country, with a cooperative structure. It has 2 offices in the Kaffrine department, which report to CMS's regional office in Kaolack. CMS offers loans for - among others - agriculture, including for agricultural equipment, seasonal crop loans and dry-season loans. CMS offers a specific loan product for female entrepreneurs (Siggil Jigeen). Besides loans, CMS also offers several savings products, international money transfers, and other semi-bank services.
- **PAMECAS** is one of the top three MFIs in Senegal. It is affiliate of the West African CIF network, which unites the larger cooperative MFIs of Francophone West Africa. Information on its products is currently not available, as its website is not available.
- **MicroCred** is in the top three of MFIs in Senegal, and is part of the French PlanetFinance group. MicroCred only recently entered into agricultural finance, because their origin is rather in the urban small and medium enterprise finance. Apart from credit, they also offer several types of savings accounts, insurance (life, health, stocks), and money transfers.
- **ACEP**, one of the top five MFIs in Senegal, originated from a USAID project in the 1980s in the peanut production region around Kaolack/Fatick. Its Kaffrine office reports to the regional office of ACEP in Kaolack. ACEP offers individual microcredit for trade, services and agriculture, as well as group loans. ACEP also offer SME loans (> EUR 23,000), for investment and working capital, and consumer loans for housing and social expenses. Besides credit, ACEP also offers several savings products, as well as money transfers (Moneygram, Ria, Mobile Cash and Western Union).
- **FDEA** is a small MFI, oriented towards women and youth, and a smaller number of male entrepreneurs. Their Kaffrine office reports to their regional office in Kaolack. FDEA offers credits for groups, microenterprises, SMEs, cooperatives and consumers. FDEA has special external funds for agricultural loans. They also offer several savings products.

### **Community-based finance:**

In Senegal, village savings and loans associations (VSLA) and similar models are deployed by:

- Catholic Relief Services
- Childfund
- Plan International
- WorldVision

Based on this quick scan, we cannot confirm whether these activities relate to the Kaffrine department.

### **Value-chain finance**

- Kaffrine lies in Senegal's peanut basin. Millet, peanuts and maize are the most common crops in the Kaffrine, and are cultivated by 85-90% of the farmers. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### **Agent networks**

- Mobile money agents are much more represented than any other financial access points. Orange Money has a commercial office in Kaffrine plus 37 sales agents in the department. These agents sell mobile money (against cash), but from web-sources it cannot be seen whether all these sales agents also offer paying out mobile money in cash.  
Other mobile money networks in Senegal are AfriMarket, Tigo Cash, W@ri and Yoban'tel.

### **Agricultural insurance**

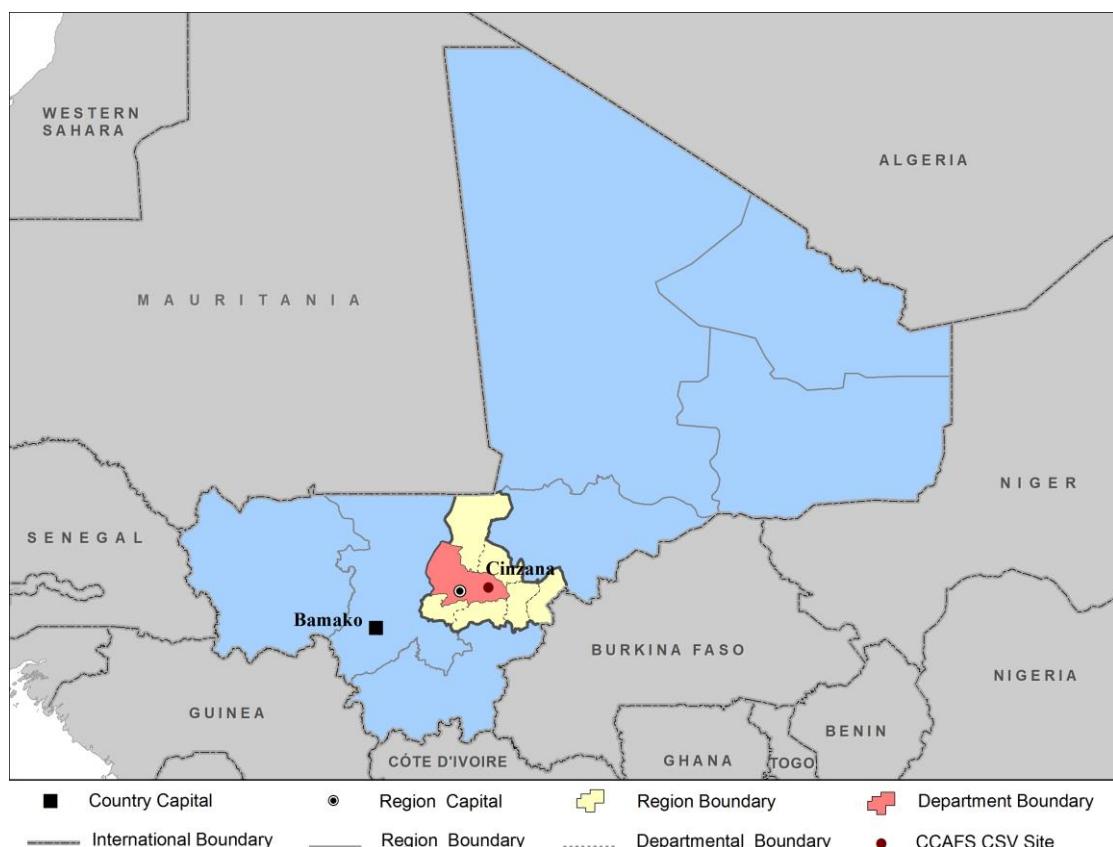
- Agricultural insurance exists in Senegal, through the state insurance company CNAAS. A variety of agricultural insurance products is offered ([www.cnaas.sn](http://www.cnaas.sn)). However, from web sources it cannot be seen whether these products are available in the Kaffrine department.

- Also PlanetGuarantee (France) - through its Senegal office - is deploying agricultural insurance in Senegal. Also in this case, its availability in Kaffrine is to be verified if Senegal is chosen as a case study.

### 5.2.2 Mali

In Mali, CCAFS is active in 7 rural communities in the Cinzana commune (municipality), located in the Cercle (province) de Ségou, within the Ségou region (Figure 5.2.2). The closest city is Ségou, at about 60 km distance, with 130,000 inhabitants.

**Figure 5.2.2. Mali: Cinzana commune, Ségou region.**



There are no geodata available on microfinance supply in Mali. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

#### Banks (with an office in Ségou)

- **Banque Nationale de Développement Agricole (BNDA):** State-owned agricultural development bank. Offers also wholesale loans to MFIs. Closest office is in Ségou.
- **Ecobank:** Commercial bank. Wide range of bank services, but no specific mention of agriculture on the website. Offers also wholesale loans to MFIs.
- **Bank of Africa:** Commercial bank. Offers all bank services, but no specific mention of agricultural loans. Closest office is in Ségou.

- **Banque de Développement du Mali (BDM):** Commercial bank. Wide range of bank services, but no specific mention of agriculture on the website.
- **Banque Internationale pour le Mali (BIM):** Commercial bank. Wide range of bank services, but no specific mention of agriculture on the website.
- **Banque Atlantique:** Commercial bank. Wide range of bank services, but no specific mention of agriculture on the website.
- **Banque Malienne de Solidarité:** State-owned development bank. Wide range of bank services, but no specific mention of agriculture on the website.

#### **MFIs**

- **Kafo Jiginew:** Largest MFI in the country, with a cooperative nature. Kafo Jiginew has an agricultural background and originates from the cotton region in Southern Mali. It has a nation-wide branch network.
- **Nyesigiso:** Second-largest MFI in the country, with a cooperative nature. Nyesigiso has an agricultural background and originates from the Segou region. It has an almost nation-wide branch network.
- **Soro Yiriwaso:** One of the largest non-member-based MFIs in Mali, with a branch network in 4 regions. Its client base is mainly rural.
- **MicroCred:** Part of the French PlanetFinance group. It is mainly active in and around the capital city Bamako. MicroCred only recently entered into agricultural finance, because their origin is rather in the urban small and medium enterprise finance. Apart from credit, they also offer several types of savings accounts, insurance (life, health, stocks), and money transfers.
- **RMCR:** RMCR is a cooperative MFI, founded in 2000 as a subsidiary of the global Vision Fund, based in the USA. It has been funding microenterprises and agriculture-related activities, and offers savings services as well. It operates in the Séguo region and 4 other regions.
- **CVECA ON:** A union of village-based savings and loan associations, centered in the irrigated rice belt in the Office du Niger, around Niono in the Northern part of the Séguo region.

#### **Community-based finance**

In Mali, village savings and loans associations (VSLA) and similar models are deployed by:

- Oxfam
- Plan International

Based on this quick scan, we cannot confirm whether these activities relate to the Cinzana commune.

#### **Value-chain finance**

- CCAFS Site Portfolio (2013): ‘Agriculture is the mainstay of the economy of the region, and employs more than 80% of the active population. Main crops grown include: millet, sorghum, maize, fonio, rice. Extensive livestock rearing (small ruminants and cattle). Income sources include: small businesses, remittances, farm labour, rice production, cash crops (cotton, groundnuts, sugar cane, Sesame, Soybean).’ To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

#### **Agent networks**

- Mobile money is offered in Mali by Orange Money and MobiCash (Malitel/Sotelma).

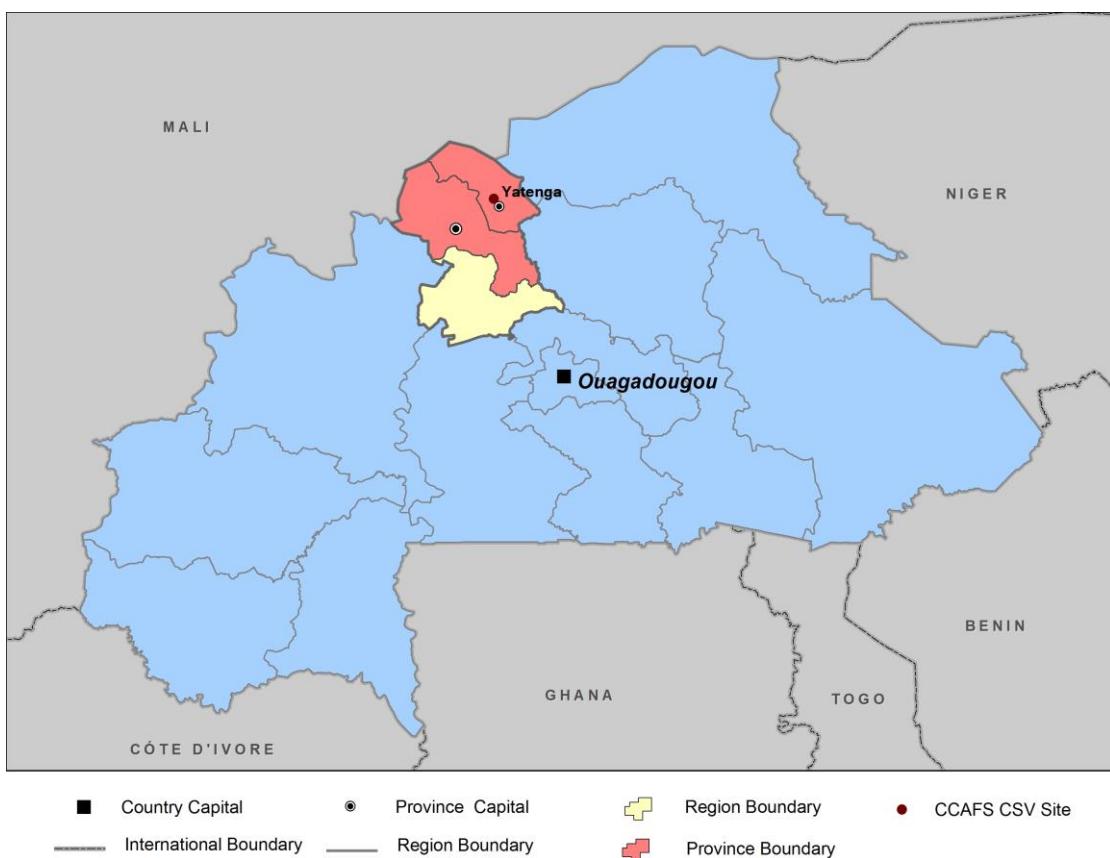
#### **Agricultural insurance**

- Planet Guarantee has developed weather index insurance, specifically drought insurance in maize, and yield insurance in cotton, with 2 MFIs as distribution channels.

### 5.2.3 Burkina Faso

In Burkina Faso, CCAFS is active in the Northern region of Burkina Faso, in two provinces specifically: the Yatenga province and the Loroum province. More specifically, CCAFS is active in 4 rural municipalities (called ‘communes’ or ‘départements’): Ouahigouya, Namissiguima, Koumbri in the Yatenga province, and Titao in the Loroum province (Figure 5.2.3). The capital of the Northern region is the city of Ouahigouya, with about 122,000 citizens. The town of Titao, at 47 km North-East of Ouahigouya, counts about 22,000 inhabitants.

**Figure 5.2.3. Burkina Faso: Yatenga and Loroum provinces.**



There are no geodata available on microfinance supply in Burkina Faso. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

#### Banks

- **Ecobank:** Has taken over the state agricultural bank BACB in 2008, and has thus become the most important agricultural bank in the country. It has an office in Ouahigouya.
- **Bank of Africa:** Offers all bank services, but no specific mention of agricultural loans. No office in Ouahigouya.

- **Banque Atlantique (BABF)**: Commercial bank. No specific mention of agriculture on their website.
- **Banque Internationale pour le Commerce, l'Industrie et l'Agriculture (BICIA)**: commercial bank. No specific mention of agriculture on their website.
- **Banque Internationale du Burkina (BIB)**: No website found.
- **United Bank for Africa - Burkina Faso (UBA-BF)**: Commercial bank. No specific mention of agriculture on their website

#### **MFIs (in order of size of loan portfolio)**

- **Union Régionale des Caisses Populaires du Nord (URCPN)**: Affiliated to the nationwide microfinance institution RCPB, which is by far the largest microfinance institution in Burkina. RCPB is a cooperative organisation, in three layers: the national structure is a federation of five regional unions, each of which consists of primary *caisses populaires*. The RCPB network offers loans, savings, transfers and a limited offer of insurance. RCPB is familiar with the agricultural sector.
- **PAMF-B**: Among the top three of the mid-sized MFIs in Burkina, that is, after RCPB. PAMF-B is part of the international Aga Khan network, and has been traditionally strong in agriculture. Ninety per cent of its clients are rural and one-third are women.
- **ACEP BF**: ACEP only started in Burkina in 2012, but has grown quite fast, based on a strong network of foreign capital investors. It is part of an international network of ACEP International and I&P investors (France). It specialises in individual loans for small and medium enterprise ('missing middle'), through a branch network in the 3 main cities of Burkina. It is not (yet) represented in Ouahigouya.
- **FAARF (Fonds d'appui aux activités génératrices des femmes)**: FAARF is a state fund, providing loans to women in rural and urban areas, from informal solidarity groups to small and medium enterprises. It is active in all provinces of Burkina. Agriculture only represents 4% of the portfolio, but livestock 34%.
- **Société de financement de la petite entreprise (Sofipe SA)**: SOFIPE aims at small enterprise finance, with a capital base of international investors. It offers group loans and individual loans.
- **Graine SARL**: Graine is a microfinance institution created by Caritas Burkina and Catholic Relief Services. It specialises in solidarity group loans for women, but has developed also a wider service offer including several savings products, individual loans, and money transfers. Its loan offer includes agriculture.
- **Microstart**: Microstart is a microfinance institution aiming predominantly at women entrepreneurs. It finances group solidarity loans, but also offers individual loans for different purposes (including agriculture) and several savings products.
- **MECAP Ouahigouya**: Mutuelle d'Epargne et de Crédit des Artisans et Producteurs de Ouahigouya. MECAP/Ouahigouya is one of the four MECAPs united in the Union UMECAP. It offers several savings and loans products, including loans for agriculture.

#### **Community-based finance**

In Burkina Faso, village savings and loans associations (VSLA) and similar models are deployed by:

- Catholic Relief Services
- Freedom from Hunger
- Plan International

Based on this quick scan, we cannot confirm whether these activities relate to the Yatenga and Loroum provinces.

#### **Value-chain finance**

- The CCAFS Site Portfolio (2013) describes the production systems of small-scale farming, predominantly agro-sylvo-pastoral based on extensive cereals (millet, maize and sorghum production) and extensive livestock system (small ruminants). To the extent that such

value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

#### Agent networks

- Mobile money is offered in Burkina by Airtel and MobiCash (Talmob/Onatel).

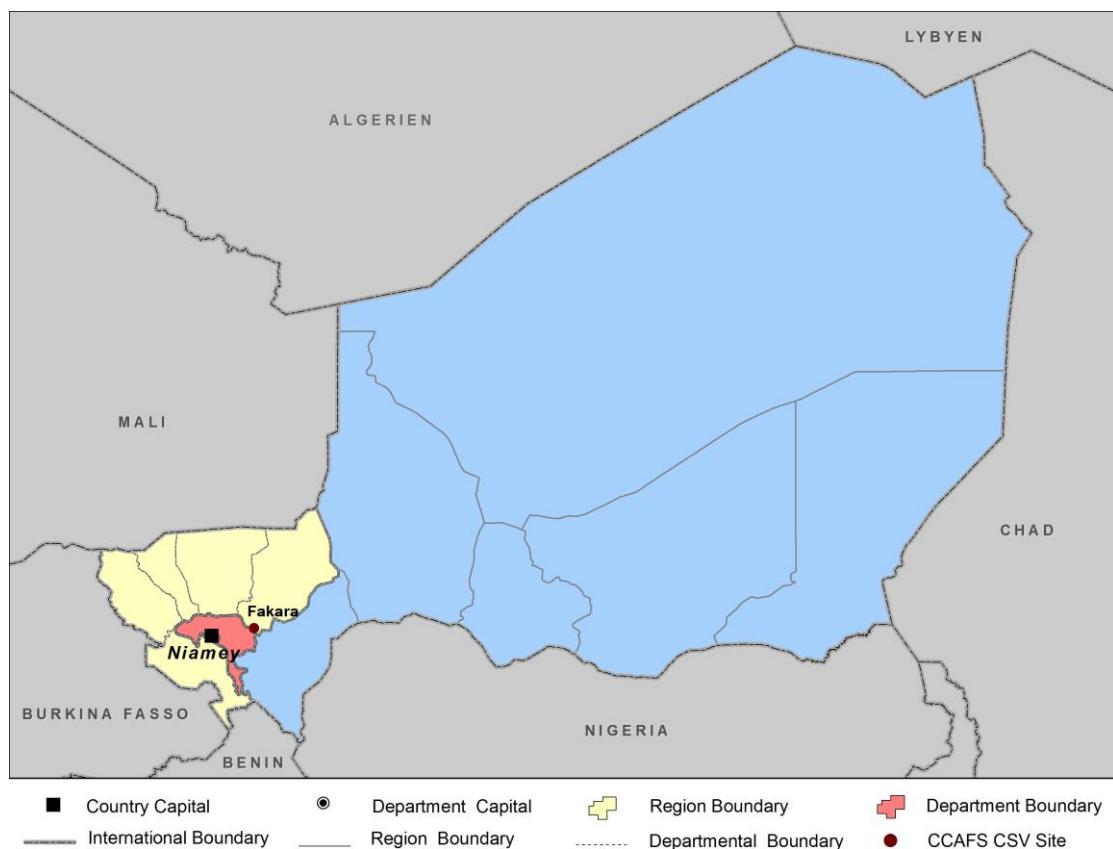
#### Agricultural insurance

- Agricultural insurance is offered at a limited through the network of Planet Guarantee, in collaboration with banks, MFIs, local insurance companies and input dealers. Weather index insurance has been developed for maize (drought insurance) and cotton (yield insurance).

#### 5.2.4. Niger

In Niger, CCAFS is active in the Fakara commune (municipality) of the Kollo department (Tillabéri region), 40 km east of the capital city Niamey (Figure 5.2.4). Nearby towns are Kouré (40,000 inhabitants) and Yeni. The Tillabéri region is one of the relatively better serviced regions in Niger, in terms of microfinance (source: Portail de la Microfinance).

**Figure 5.2.4. Niger: Fakara commune, Kollo region.**



There are no geodata available on microfinance supply in Niger. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception*

*of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site).*

### Banks

- **Banque Agricole du Niger (Bagri-Niger):** State-owned bank, created in 2010, to fill the vacuum of smallholder finance in the country. Offers loans to producer organisations and wholesale loans for agri-financing to MFIs. And offers other banking services.
- **Bank of Africa:** Offers all bank services, but no specific mention of agricultural loans. Closest office in the capital city Niamey, at 80 km distance.
- **Banque Atlantique:** Commercial bank. Part of the international group Atlantic Business International, which is active in 7 countries in Francophone West Africa. Aims at consumers and SMEs. No specific mention of agriculture on its website.
- **Banque Internationale pour l'Afrique:** Commercial bank. No specific mention of agriculture on its website.
- **Ecobank:** Commercial bank. No specific mention of agriculture on its website.
- **Banque Islamique du Niger pour le Commerce et l'Investissement (BINCI):** commercial bank. No website found.
- **Banque Commerciale du Niger (BCN):** Commercial bank. No specific mention of agriculture on its website. No website found.
- **Banque Sahelo-Saharienne pour l'Investissement et le Commerce (BSIC Niger):** Commercial bank. No specific mention of agriculture on its website.
- **Sonibank:** Commercial bank. No specific mention of agriculture on its website.
- **CBAO-Attijari:** Commercial bank. Member of the Moroccan Attijariwafa group, also active. No specific mention of agriculture on its website.
- **Société Sahélienne de Financement (SAHFI S.A.):** Commercial bank. No website found.

### MFIs (largest in the country)

- **Asusu S.A.:** Largest MFI in the country, originally founded by the government-funded Poverty Reduction Project. It has a wide network of branches and smaller service points. Its original target group are rural micro and small enterprises. It offers loans, savings and smart card services, as well as non-financial services. Asusu also provides loans for agriculture, partly with targeted international funds.
- **Capital Finance:** Second-largest MFI in Niger, member-based, with 26,000 clients. Savings and credit services. No specific web info available about their products for agriculture.
- **Taanadi:** Cooperative MFI, with 25,000 clients, offering savings and credit services. Loans among others for warehouse receipt financing, agricultural input loans, and loans for women entrepreneurs.
- **MCPEC (Mouvement des Caisses Populaires d'Epargne et de Crédit):** Oldest cooperative MFI network in Niger, affiliated originally to WOCCU. Has been involved in rural and agricultural finance. No recent web info available.
- **U-CMN (Caisse Mutuelle du Niger):** Cooperative MFI network, offers savings, loans and transfers.
- **MECREF (Mutuelle d'Epargne et Crédit des Femmes):** Cooperative MFI with about 27,000 women members. Mainly active in urban areas (Niamey, Maradi), with savings, group loans and individual loans.

### Community-based finance:

In Niger, village savings and loans associations (VSLA) and similar models are deployed by:

- CARE
- Plan International
- World Vision

Based on this quick scan, we cannot confirm whether these activities relate to the Fakara commune.

#### Value-chain finance

- The CCAFS Site Portfolio (2013) describes: ‘The agricultural system is characterised by the cohabitation of two agrarian cultures, the Jarma crop-farmer culture, and the Fulani pastoralist culture. The present farming system is largely subsistence oriented, based on millet staple (mainly millet and some sorghum) associated with a range of secondary crops, either dual purpose legumes (cowpea, bambara nut, ground nut) or cash crops (sesame, sorrel).’

To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

#### Agent networks

- Mobile money is offered in Niger by Airtel, Orange Money and Flous.

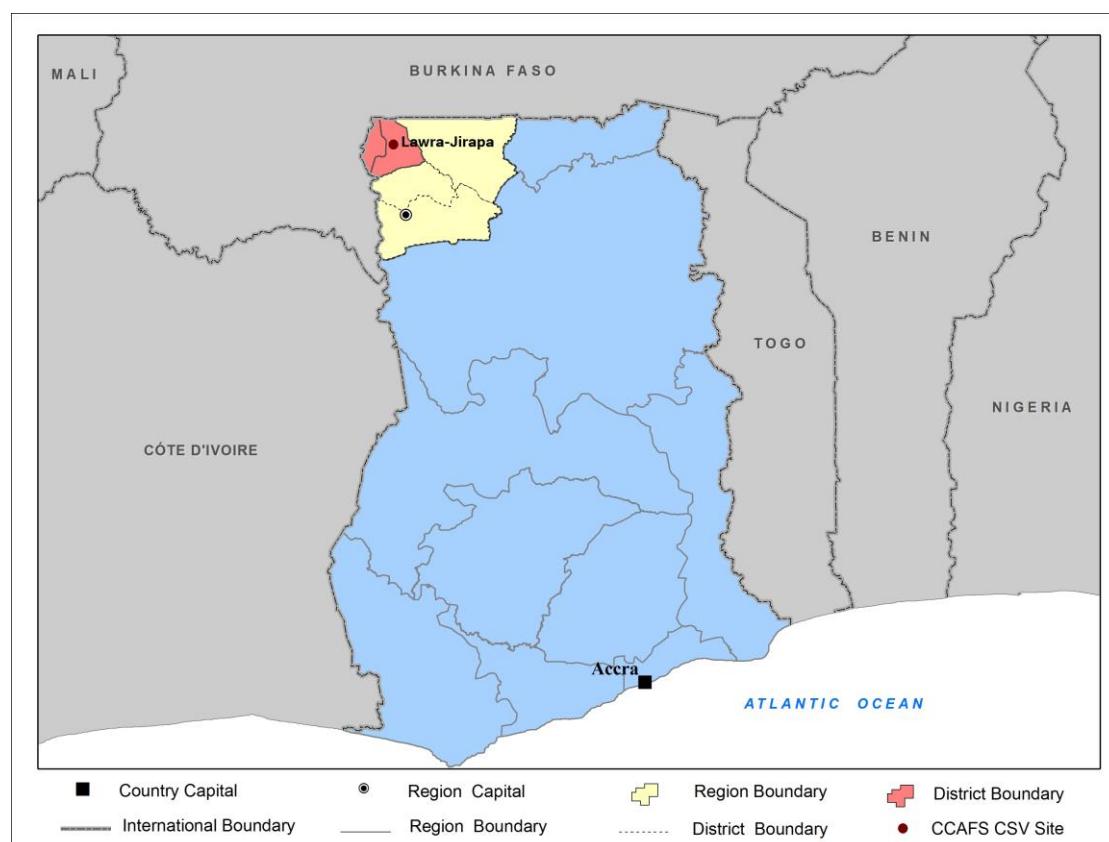
#### Agricultural insurance

- Up to 2012, no agricultural insurance experience available in Niger, but discussions are being held (IFC, UNCDF).

### 5.2.5 Ghana

In Ghana, CCAFS is active in the districts of Lawra and Jirapa, in the Upper West Region, close to the border with Burkina Faso. The capital of the Upper West region, the city of Wa, is at 70 km distance, with 112,000 inhabitants (Figure 5.2.5).

**Figure 5.2.5. Ghana: Lawra and Jirapa districts, Upper West region.**



Information about financial institutions is not available at district level, but rather at regional level (Finclusion Lab @ Mixmarket). In the Upper West region, the following financial institutions are represented:

### Banks

- **Ghana Commercial Bank Ltd:** Has a branch office in Lawra, and another one in Wa. Offers a wide range of SME services, as well as other normal banking services (accounts, savings, loans, money transfer, etc). No specific mention of agricultural loans on the website.
- In the wider Upper West Region, the following banks are present:
  - **ARB Apex Bank:** Umbrella bank of the Rural and Community Banks Ghana. It has offices in all the regional capital cities, including Wa for the Upper West region. ARB offers services to the rural banks, not directly to clients. It could be a dialogue partner to discuss financial partnerships with rural banks, for specific purposes and products.
  - **Barcays Bank of Ghana Ltd:** Office in Wa. Wide range of bank services, but no specific mention of agriculture on the website.
  - **National Investment Bank:** Office in Wa. Wide range of bank services, but no specific mention of agriculture on the website.
  - **SG-SSB Limited:** Office in Wa. Wide range of bank services, but no specific mention of agriculture on the website.
  - **Stanbic Bank Ghana Ltd:** Office in Wa. Wide range of bank services, but no specific mention of agriculture on the website. (According to the GAIP insurance program (see below), Stanbic is one of the major providers of agricultural finance.
  - **First National Bank:** office in Wa. Wide range of bank services, but no specific mention of agriculture.

### Rural Banks

- Lawra Rural Bank, located in Lawra
- Sonzele Rural Bank, located in Jirapa
- Nandom Rural Bank, located in Nandom
- Sissala Rural Bank, located in Tumu

### Savings & Loans

- **Sinapi Aba Savings & Loans Ltd:** Non-bank financial institution and a top four MFI according to MixMarket, Sinapi belongs to the worldwide microfinance network of Opportunity International. Sinapi offers a wide variety of savings and loan products for micro and small businesses, including agricultural loans (preferably linked to a value-chain).

### Credit Unions

- 14 credit unions in the region, all member of the Ghana Co-operative Credit Unions Association (global WOCCU network). These credit unions are constituted within companies (employees), communities and Catholic parishes. In Jirapa there is a credit union of the St Joseph parish. They provide savings and loans to their members. It is unclear to what extent farmers or agriculture are represented in their membership.

### Community-based finance

In Ghana, village savings and loans associations (VSLA) and similar models are deployed by:

- CARE
- Plan International
- World Vision

Based on this quick scan, we cannot confirm whether these activities relate to the Lawra and Jirapa districts.

#### **Value-chain finance**

- Crops grown in the Upper West region include corn, millet, groundnuts, okro, shea butter, and rice. Sheep, goats, chickens, pigs and guinea fowl are raised for meat and eggs. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, input and equipment dealers).

#### **Agent networks**

- MTN is represented with a network of 75 mobile money agents in the Upper West region. This network is much more represented than any other financial access point.
- Other mobile money providers in Ghana are Airtel Money, Tigo Cash, txtNpay wallet, and Vodafone Cash.

#### **Agricultural insurance**

- Agricultural insurance was launched in Ghana in 2011, through the GIZ-project ‘Innovative Insurance Products for the Adaptation to Climate Change’ (IIPACC). This project launched the Ghana Agricultural Insurance program (GAIP), in collaboration with a platform of almost 20 local insurance companies. In 2013 GAIP offered weather index insurance (drought index insurance and area yield insurance) in 7 out of 10 regions of Ghana.

## 5.3 Eastern Africa

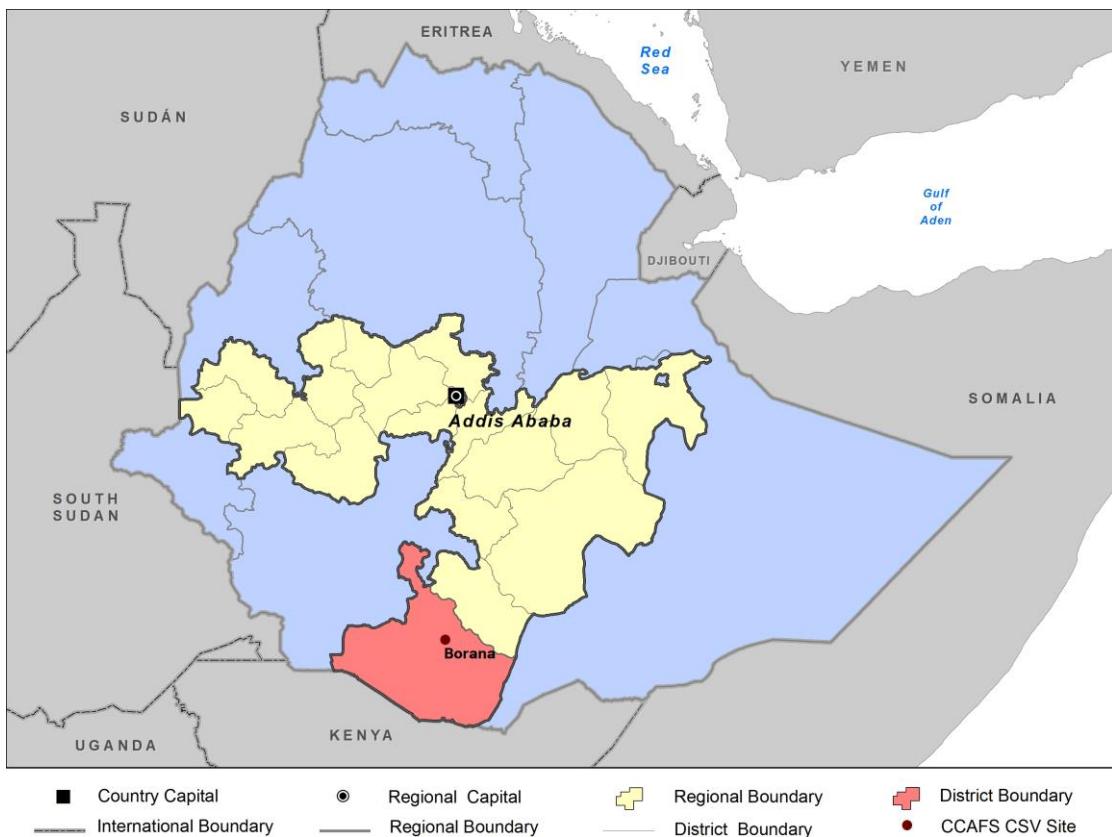
In Eastern Africa, CCAFS is active in Ethiopia, Uganda, Kenya and Tanzania.

### 5.3.1 Ethiopia

In Ethiopia, CCAFS is active in the Yabelo district (Woreda) of the Borana zone, in the south of the Oromia region (fairly close to the border with Kenya). The CCAFS priority area is located at about 40 km east from the town of Yabelo. Yabelo is a small town of nearly 20,000 inhabitants (Figure 5.3.1).

The Finclusion data about Ethiopia are limited. Only banks are included, whereas MFIs and SACCOs are absent from the Finclusion maps. Still, by combining different sources of information, we managed to get the following information.

**Figure 5.3.1 Ethiopia: Yabelo district, Borana zone (Oromia regional state)**



In the Yabelo district, the following financial institutions are represented:

#### Banks

- There are no banks in Yabelo, according to the Finclusion Lab data.
- The closest town where banks are located is Hagere Mariam (Bule Hora, Woreda), with roughly 22,000 inhabitants, at 100 km North of Yabelo. There are 6 banks located in Bule Hora:

- *State-owned banks:* Commercial Bank of Ethiopia
- *Private banks:* Awash International Bank, Bank of Abyssinia, Dashen Bank, Oromia International Bank
- *Cooperative banks:* Oromia Cooperative Bank

**MFIs:** The microfinance sector in Ethiopia is quite vibrant and fast-growing, with 6 large MFIs owned by regional governments, and a series of mid-size MFIs of private nature. Besides, there are SACCOs and rural SACCOs, operating under Cooperative Law.

- **MFIs:** The Finclusion Lab only covers banks and insurance companies, but does not provide geodata on MFIs and SACCOs in Ethiopia. Also in other web sources, no specific mention was made to MFIs present in the Borana zone or the Yabelo district.
- **SACCOs:** In the Borana zone, over 200 small SACCOs exist, with around 10,000 members in total (Yabelo Coop office, cited by Holtland 2011). Statistics and data on these SACCOs are of poor quality.

#### **Community-based finance:**

In Ethiopia, village savings and loans associations (VSLA) and similar models are deployed by:

- CARE
- Child Fund
- Mercy Corps
- PCI
- Plan International
- World Vision

For a total of over 10,000 groups and nearly 200,000 members.

Based on this quick scan, we cannot confirm whether these activities relate to the Yabelo district.

In Ethiopia, traditional ROSCAs and funeral societies are strongly embedded in local culture and widely spread.

#### **Value-chain finance**

- Borana pastoralists who live in southern Ethiopia, CCAFS learning site, make their living mainly from livestock keeping, cattle, sheep and camels. Recently, crop cultivation and poultry production are making their ways into the system.
- To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, input and equipment dealers). Holtland (2011) - in his study on cooperatives in the pastoralist economy in Borana, refers to the relevance of Livestock Marketing Cooperatives, and cooperatives for gums and incense, milk and butter, and aloe vera soap.

#### **Agent networks**

- Mobile money is quite new in Ethiopia. There are 2 services reported in GSMA's Mobile Money Deployment Tracker: m-Birr and Hello Cash.

#### **Agricultural insurance**

- Agricultural insurance is quite new in Ethiopia. A few pilot initiatives are in development. R4 Rural Resilience Initiative has scaled unsubsidised index insurance to over 20,000 poor smallholder farmers (index insurance for teff, beans, maize, wheat). Also, the Index-Based Livestock Insurance (IBLI) project in Kenya (and Ethiopia) - mortality-index insurance - demonstrates innovative approaches to insuring poor nomadic pastoralists in challenging circumstances. JICA and the Ethiopian Ministry of Agriculture launched the Rural Resilience Enhancement Project (RREP) in 2012 to enhance the resilience of rural communities in the Oromia and Somali regions. One of the objectives of the project was 'introducing a Weather Index insurance plan for farmers in low rainfall areas of Oromia Region.' More recently, the Dutch G4AW programme of the Netherlands Space Organisation launched two initiatives aimed at the use of satellite-based information for

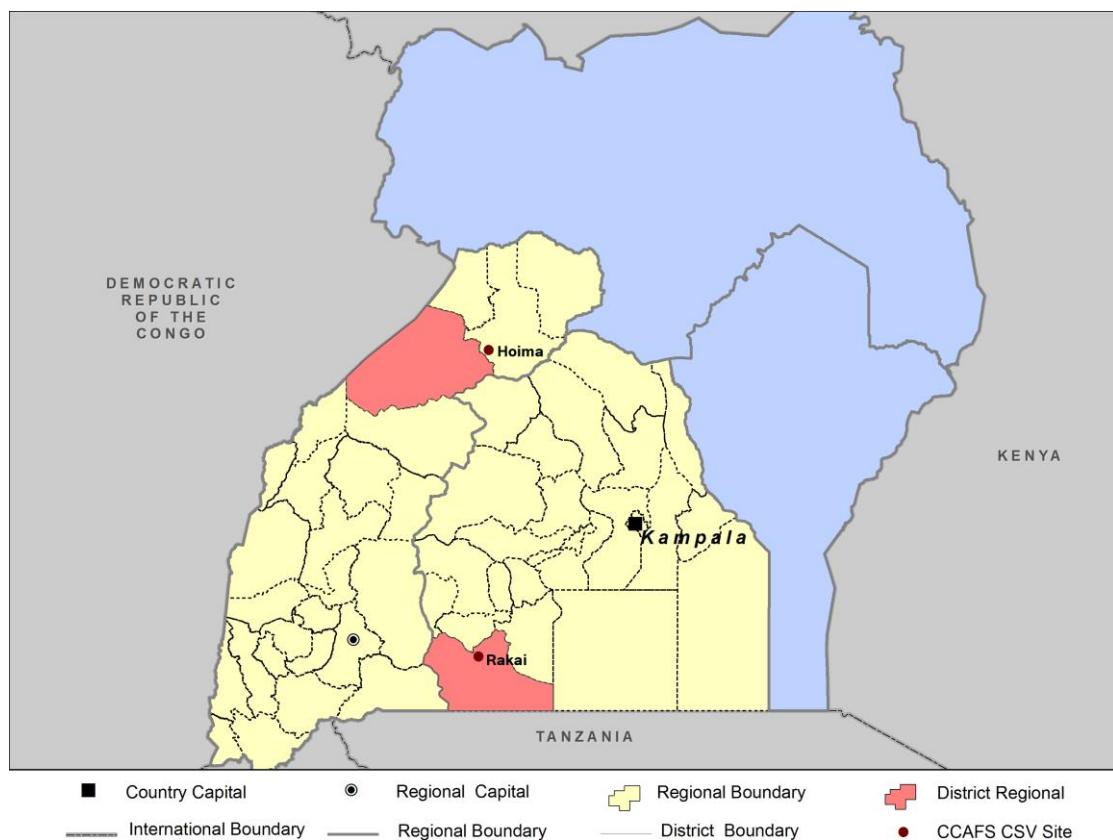
agricultural insurance: the CommonSense programme and the Geodata for Innovative Agricultural Credit Insurance Schemes (GIACIS).

### 5.3.2 Uganda

In Uganda, CCAFS is active in:

- the Hoima district in the Albertine Rift (at the north of the Western region), close to Hoima and Kabarole towns. Hoima is a town of 30,000 inhabitants. The closest city is Misindi with 95,000 inhabitants, at 70 km from Hoima (Figure 5.3.2).
- the Rakai and Isingiro districts of the Kagera river basin, at the south end of the Western and Central regions. Rakai is a small town of 7,600 inhabitants. Larger towns in the neighbourhood are Kyotera (at 10 km from Rakai, 7,600 inhabitants), Masaka (104,000 inhabitants, at 53 km from Rakai), Isingiro (30,000 inhabitants, at 118 km from Rakai) and Mbarara (195,000 inhabitants, at 131 km from Rakai).

**Figure 5.3.2. Uganda: Hoima district and Rakai district.**



In the CCAFS CSV AR4D sites, the following financial institutions are represented:

#### Banks

##### For Hoima:

- **Barclays Bank:** Before 2006, the bank focused on meeting the banking needs of only large corporations and high-net-worth individuals. That focus was loosened to include SMEs and regular customers.
- **Centenary Bank (CRDB):** Commercial bank created by the Roman Catholic Diocese and Secretariat, with 63 branches. It is primarily involved in the promotion of

development through loans to rural farmers, processors of agricultural produce, small traders, small manufacturers, importers, and exporters. While engaged in all areas of commercial banking, the bank has a significant portion of its portfolio in the [microfinance](#) arena in an attempt to meet the needs of the many individuals and business entities with limited means.

- **Crane Bank:** One of the largest banks in the country. Recently (Oct 2016) put under surveillance by the central bank, because of undercapitalisation.
- **DFCU Bank:** Created as a state development finance institution the 1960s, DFCU was privatised in 2005. In 2013 Rabobank Development became one the shareholders. DFCU - the 5<sup>th</sup> commercial bank of Uganda in terms of size - wants to be a retail bank with a rural orientation. It has 43 branches in the country.
- **KCB Bank:** Subsidiary of the Kenyan KCB group. Focuses on financial services for individuals and corporates, including SMEs and agri.
- **Stanbic Bank:** Subsidiary of the Standard Bank group of South Africa. It offers a range of banking products including [Internet banking](#), mobile money, SME lending, and debit and credit cards, among other products. It has 100 branches in Uganda.

#### For Rakai:

- No banks in Rakai village
- Closest banks are in the village of Kyotera, at 10 km distance from Rakai:
  - CRDB Centenary Rural Development Bank (see above)
  - Stanbic Bank (see above)

**MFIs:** information based on Finclusion Lab geodata on financial services. Mixmarket data for Uganda are quite incomplete.

#### For Hoima: 18 deposit-taking MFIs, 2 non-deposit-taking MFIs, and 29 SACCOs, the largest being:

- **BRAC** (deposit-taking MFI): Based on the cumulative portfolio figures BRAC publishes, its current microfinance clientele is estimated at somewhere between 20,000 and 25,000 clients. BRAC offers credit to MSE and small enterprises. Besides the microfinance, the NGO BRAC manages a series of other social development programmes, including some on agriculture, poultry and livestock.
- **Nulo SACCO:** No information available.
- **Finca** (deposit-taking MFI): Offers savings, credit and money transfers. Active loan portfolio of around USD 25m (2015). Credit include business loans, agricultural loans, small group loan, village bank group loan. Branch office in Kyotera, at 10 km distance of Rakai.
- **Hofokam** (non-deposit-taking MFI): Uganda's oldest and largest rural MFI. Over 16,000 clients, mostly rural (men and women).
- **Pride Microfinance Ltd** (deposit-taking MFI): Largest MFI in Uganda, serving over 400,000 deposit clients and over 70,000 credit clients (2014). Offers several savings and deposit services, loan products and money transfers.

In Hoima there is also an office of the Microfinance Support Centre (MSC), a state-owned institution that provides technical advice and financing to MFIs and SACCOs.

#### For Rakai/Isingiro:

- in Rakai: 15 SACCOs but no MFIs.
- in Isingiro: 23 SACCOs but no MFIs.

Names of the SACCOs are not known, because Finclusion Lab only provides names of the top fifty largest financial institutions in a given country.

In Mbarara and in Masaka there is also an office of the Microfinance Support Centre (MSC) - see above.

### **Community-based finance**

In Uganda, village savings and loans associations (VSLA) and similar models are deployed by:

- CARE
- Catholic Relief Services
- Childfund
- Plan International
- We Effect

For a total of over 23,000 groups and nearly 665,000 members.

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS CSV AR4D sites.

### **Value-chain finance**

- In the CCAFS priority area the major crops are as follows:
  - In the Hoima district, the farming system is highland agroforestry, mid-hill coffee/tea, and small-scale mixed farming/commercial to dry land small-scale agriculture/agro pastoralism along Lake Albert.
  - In the Rakai district, the main staples grown include: maize, bananas, cassava, beans, and sweet potato. The cash crops include: coffee, tobacco, sugar cane.
- To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, input and equipment dealers).

### **Agent networks**

- Uganda has 7 mobile money services identified by GSMA's Mobile Money Deployment Tracker: Africell Money, Airtel Money, EzeeMoney, M-Sente, mCash, Micropay, MTN Mobile Money, Warid.

### **Agricultural insurance**

- A few years ago some insurance companies introduced agricultural insurance policies such as Kungula Agrinsurance, a product offered by a group of six insurance companies. These are Lion Assurance, APA, UAP, FICO, NIKO and National Insurance Corporation (NIC). Currently, there are two types of agricultural insurance covers. Livestock/animal and crop insurance and weather-index based insurance. The packages cover crop and pasture losses due to drought and excessive rainfall, among others.
- In 2016 the government launched a programme for the Uganda Agricultural Insurance subsidy, that is, a partial subsidy to the premium paid by the farmer. The program will be implemented through public-private partnerships, f.i. with the National Union of Coffee Farmers for a 50% premium subsidy for a drought insurance for coffee.
- ILRI is doing a project on Index-based livestock insurance (IBLI).

### **5.3.3 Kenya**

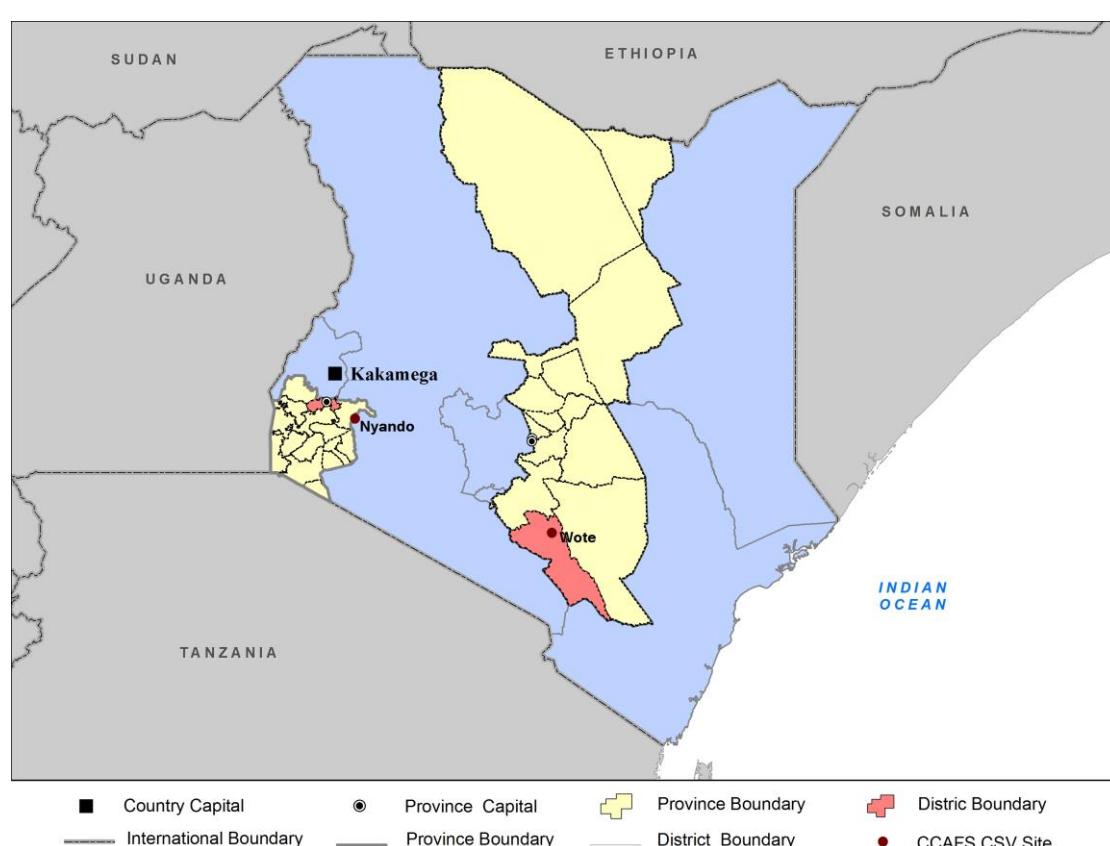
In Kenya, CCAFS is active in two distinct sites:

- The Nyando site which lies across Kisumu County and Kericho County, in Western Kenya Kisumu is a port city at the Victoria Lake, in Western Kenya, with 409,000 inhabitants. The town of Kericho – at about 83 km South East of Kisumu - has 30,000 inhabitants (Figure 5.3.3).

- The Wote Division in the Makueni county. Wote is the capital town of the Makueni county. The Wote town council counts a population of about 56,400 inhabitants, of whom 5,540 are urban (1999 Census).

Although there are geodata available for Kenya at the Finclusion Lab and the Financial Sector Deepening Trust, these data do not show the names of the financial service providers. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site).

**Figure 5.3.3. Kenya: Kisumu and Makueni counties.**



### Banks

#### Nyando

- In Kisumu and Kericho together, there are 44 bank branches, two-thirds of which are in Kisumu. One of the most interesting banks, according to CCAFS staff, is Equity Bank.
- In Kisumu and Kericho together, there are 208 bank agents.
- In Kisumu and Kericho together, there are 16 post offices with financial services.
- In Kericho, 5 outlets for hire-purchase can be found. None in Kisumu.
- There are 3 development finance institutions in Kericho and Kisumu together.
- Kericho counts 3 micofinance banks and one microfinance institution. In Kisumu, no microfinance bank is reported by the Finclusion Lab, but the CCAFS staff reports that Rafiki Microfinance Bank has a branch office in Kisumu.

Wote (Makueni county):

- In Makueni county, there are 10 bank branches and 240 bank agents, as well as 13 post offices with financial services. There are also 12 outlets for hire-purchase and 3 development finance institutions.
- Makueni counts 5 micofinance banks and 16 microfinance institutions.

### **MFIs and SACCOs**

Nyando

- In Kericho, there are 20 SACCO outlets, and 5 in Kisumu.
- Kericho counts 3 micofinance banks (among others Rafiki Microfinance Bank) and one microfinance institution. In Kisumu, no microfinance bank is reported by the Finclusion Lab, but the CCAFS staff reports that Rafiki Microfinance Bank has a branch office in Kisumu.

Wote

- In Makueni, there are 21 SACCO outlets.
- Makueni counts 5 micofinance banks and 16 microfinance institutions.

### **Community-based finance**

In Kenya, village savings and loans associations (VSLA) and similar models are deployed by:

- CARE
- Catholic Relief Services
- Path
- Plan International
- VI Agroforestry

For a total of over 11,000 groups and over 240,000 members.

These activities relate to the CCAFS CSV AR4D site within Soin-Sigowet subcounty of the greater Kericho County, and also within Nyakach subcounty of the grater Kisumu County.

### **Value-chain finance**

- In the CCAFS priority area the major crops are :
  - Wote: A blend of crop-livestock systems, growing food crops such as maize, cowpea and pigeon pea. Almost all the farmers grow maize, even in areas designated as unsuitable for it. Other crops grown in order of importance are cow peas, beans, pigeon peas and green grams. Other sources of income include beekeeping, small-scale trade, livestock keeping and fruit farming.
  - Nyando: The site is characterised by a mixed rain-fed crop-livestock and largely subsistence farming system
- To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, input and equipment dealers).

### **Agent networks**

- Kenya is worldwide the front-running country in rolling out mobile money services. It has 6 mobile money services identified by GSMA's Mobile Money Deployment Tracker: Airtel Money, M-PESA (market leader), MobiKash, Orange Money, EQUITEL, PAYG Platform and Tangaza Pesa Mobile Money Transfer.  
Mobile money agents are by far the largest network of service points for financial services in Kenya, with 79% of all service points. In Kisumu and Kericho together, there are over 2600 mobile money agents, and in Makueni about 2250.
- Bank agents represent the second-largest network of service points for financial services in Kenya, with 13% of all service points.

### **Agricultural insurance**

- ACRE Africa: Created by Syngenta Foundation created a separate company to act as insurance surveyor. Its Kilimo Salamaa scheme insures farmers against drought and excess

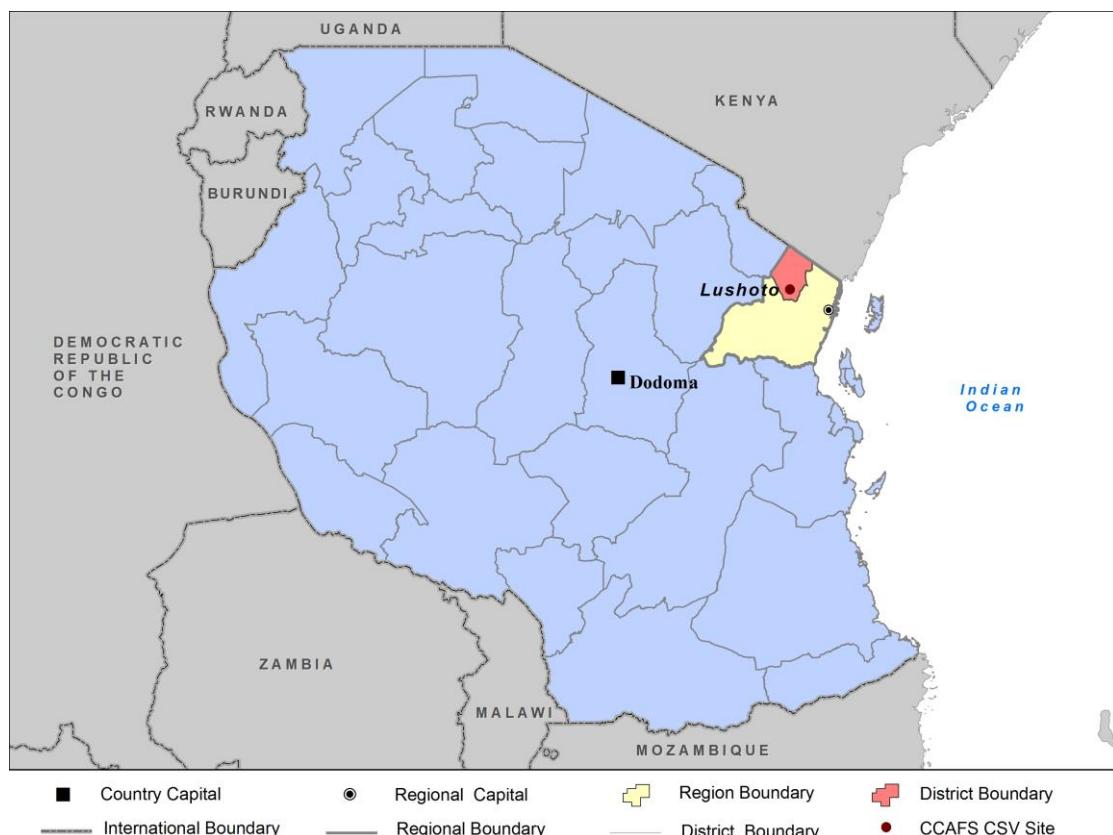
rain. It works with loan insurance, contract seed grower insurance, dairy livestock insurance and replanting guarantee. By the end of 2013, ACRE claims to have insured 187,000 farmers in three countries, including Kenya.

- AKI: The association of Kenya Insurers (AKI) communicates about the availability of agricultural insurance through 9 different members companies. These companies offer crop insurance, livestock insurance, horticultural insurance, and forstry (tree crop) insurance.<sup>9</sup>
- In March 2016, the Kenyan government announced the launch of a Kenya National Agricultural Insurance program, with assistance from the Word Bank and a series of donors. The program would include livestock and crop insurance modalities, in cooperation with the private sector.
- Index-Based Livestock Insurance (IBLI) project in Kenya (and Ethiopia) - mortality-index insurance - demonstrates innovative approaches to insuring poor nomadic pastoralists in challenging circumstances.

#### 5.3.4 Tanzania

In Tanzania, CCAFS is active in the Lushoto district of the Tanga region, right at the border with Kenya. The closest larger town is Korogwe, at 57 km distance, with 44,000 inhabitants (Figure 5.3.4). The capital city of the Tanga region is the seaport of Tanga, where sisal, coffee, tea and cotton are exported. Tanga is located at 150 km from Lushoto and has 273,000 inhabitants.

**Figure 5.3.4. Tanzania: Lushoto districts, Tanga region.**



<sup>9</sup> [www.akinsure.com/images/seeds/Agriculture%20Insurance-%20Seeds%20of%20Gold%201.pdf](http://www.akinsure.com/images/seeds/Agriculture%20Insurance-%20Seeds%20of%20Gold%201.pdf)

In the Lushoto district, the following financial institutions are represented:

### Banks

- **Tanzania Postal Bank:** Has a regional branch office in the seaport of Tanga, and offers its banking services through the postal offices (among others in Lushoto). It offers bank and savings accounts, credits (for business, SME, microcredit), mobile payment services, insurance, etc.
- **NMB (National Microfinance Bank):** Former state bank, privatised around 2005, and in which Rabobank Development has taken an important equity and management participation. Its ambition is to expand financial services for households, businesses, agribusiness and corporates, through its wide branch network. It offers a wide range of financial services, with a special focus on agriculture and SMEs. Has a branch office in Lushoto.
- Elsewhere in the Tanga region, there are 5 other banks active, among them CRDB Bank (former Cooperative Rural Development Bank) who is quite active in enlarging its outreach through mobile branches, bank agents (1741) and loans to MFIs (441).

### MFIs

- The Lushoto district counts 3 small MFIs or SACCOs, but the names of these MFIs are not mentioned at the Finclusion site because they do not belong to the top 50 of the country.
- Elsewhere in the Tanga region, there are 15 other MFIs, the larger ones being Faidika, TCCIA Sacco, BRAC, Finca, Mshikamano Sacco, Platinum Credit and Pride Tanzania.

### Community-based finance

In Tanzania, village savings and loans associations (VSLA) and similar models are deployed by:

- Aga Khan Foundation
- CARE
- Catholic Relief Service
- Plan International
- World Vision

For a total of roughly 30,000 groups and 675,000 members.

Based on this quick scan, we cannot confirm whether these activities relate to the priority areas of CCAFS.

### Value-chain finance

- The CCAFS site has diverse micro eco-zones within a relatively small area; mixed crop-livestock and intensive farming systems in higher elevation and agro-pastoral farming systems in lower elevation. Common crops are maize, beans, tomatoes, potatoes, bananas, cassava, coffee, fruits and vegetables.
- To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, input and equipment dealers).

### Agent networks

- After frontrunner Kenya, Tanzania is the second country in massive roll-out of digital finance services. Tanzania counts 5 mobile money initiatives: Airtel Money, Dau-Pesa, ezyPesa, Tigo Pesa, Vodacom M-Pesa. Mobile money agents are much more represented than any other financial access point: in Lushoto there are 15 mobile money agents.
- Many banks in Tanzania have started to work with bank agents, i.e. shopkeepers that administer simple cash and account transactions on behalf of the bank. CRDB Bank has the largest agent network - called Fahari Huduma (about 50%), but also NMB Bank, Equity Bank, Tanzania Postal Bank and DCB have substantial agent networks. Smaller agent

networks are managed by Access Bank, Finca, Amana Bank, Advans and Efatha Bank. Half of the bank agents are in the largest cities (Dar es Salaam, Arusha, Mwanza).

#### **Agricultural insurance**

- There is hardly any agricultural insurance in Tanzania. A CENFRI diagnostic on insurance in Tanzania (CENFRI 2012) mentioned one existing agricultural microinsurance initiative of MicroEnsure (weather index insurance for cotton), and another potential initiative of CRDB Microfinance studying possibilities for an agricultural insurance offering to be distributed through agriculture-based MFIs and AMCOS (Agriculture Marketing Co-operative Societies). More recently, the Tanzanian farmers organisation MVIWATA has started experiments with agricultural insurance in 2016: insurance for cashew started in the Masasi district (Mtwara region), and insurance for maize was expected to start in the Kiteto district (Manyara region) and the Kongwa district (Dodoma region). For both maize and cashew, the insurance would cover drought and excessive rainfall, through an index insurance. MVIWATA's initiative has identified possible linkages with AMCOS, VICOBAs, SACCOs, banks (NMB, CRDB, NBC).

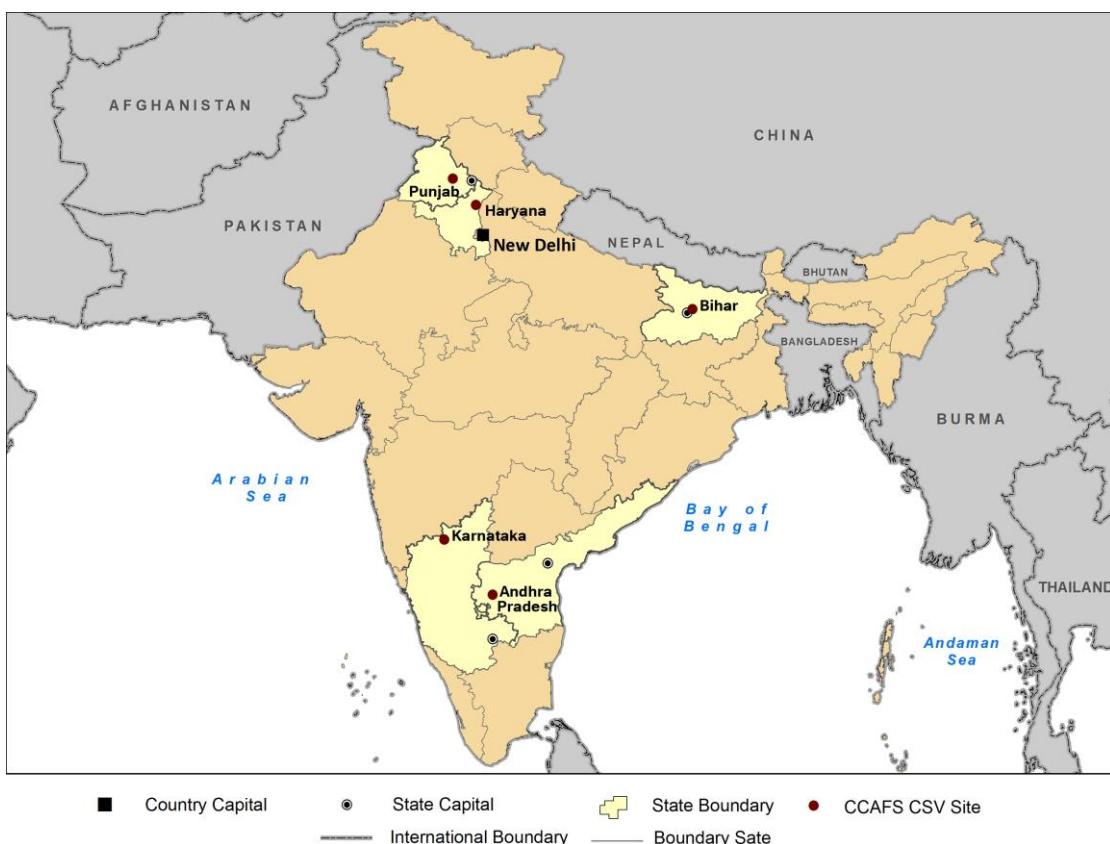
## 5.4 South Asia

In South Asia, CCAFS is active in India, Nepal and Bangladesh.

### 5.4.1 India

In India, CCAFS is active in the states of Punjab (Sangrur district), Haryana (Karnal district) and Bihar (Vaishali and Samastipur district), as well as in the states of Andhra Pradesh (districts of Kurnool and Anantapur) and Karnataka (Bijapur district, Figure 5.4.1).

**Figure 5.4.1. India: States of Punjab, Haryana and Bihar**



Microfinance in India has emerged in different forms:

- Cooperative credit societies
- Cooperative banks and regional rural banks
- Development banks (NABARD National Bank for Agriculture and Rural Development, and SIDBI Small Industries Development Bank of India)
- Land Development Banks
- Interlinkages between formal and semi-formal finance:
  - Linkages with Self-Help Groups (NABARD-bank-SHG model)
  - Service provider model by private banks
  - Kisan Credit Card model (private banks, regional rural banks, coop banks)
  - Business correspondent model of private banks

- Non-bank financial companies (NBFC)
- MFIs
- Post offices

The Finclusion Lab presents data on the presence of financial institutions per district in India.

The FSPs (banks, MFIs) present in the 3 CCAFS priority areas are listed below.

**Banks & MFIs:** There are a large number of banks and MFIs present in the CCAFS CSV AR4D sites. Because of their large number, these are listed in the table 5.4.2 below.

### Community-based finance

The *Self-Help Groups*, widespread in India, can be considered a community-based finance modality. SHGs are promoted by more than 1,000 NGOs in India. NABARD estimates that there are 2.2 million SHGs in India, representing 33 million members, mostly women. This number does not include SHGs that have not borrowed through the NABARD linkage programme.

In India, *village savings and loans associations* (VSLA) and similar models are deployed by:

- Aga Khan Foundation with a total of 3451 groups and 56,590 members.

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS priority areas, although we know that about two-thirds of these projects are located in Bihar state.

### Value-chain finance

- The major crops per district/state are:
  - *Sangrur district/Punjab*: wheat, rice, vegetables, cotton, sugar cane.
  - *Karnal district/Haryana*: Rice and wheat are the main crops whereas some farmers also grow maize, gram, mustard, sugarcane, cotton and fodder. The average yield of paddy is almost 5 t/ha and wheat is 4 t/ha. Farmers in this district are highly commercially oriented. Karnal is widely known for its production of very high-quality basmati rice. The cropping intensity in this area is 180% and all arable lands are irrigated.
  - *Vaishali district/Bihar*: Rice-based cropping system is common. After rainy rice, farmers grow wheat and pulses such as gram, lentil and mung, oilseeds such as mustard under residual moisture. Cash crops such as sugarcane, chillies, potatoes, turmeric are important crops raised under irrigated agriculture. Where assured irrigation facilities are available, crop rotation such as rice-wheat and rice-sugarcane are common. In the upland situations, maize and arhar are common mixed crops, which are grown in the rainy season. Most of the farmers have integrated farming components, integrating crops with livestock (goats, chicken, cows and buffaloes). A large proportion of the farmers in the district produce food and livestock only for their subsistence.

To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

**Table 5.4.2. Banks and MFIs: number of branches, per institution and district.**

District (State)		Sangrur (Punjab)	Karnal (Haryana)	Vaishali (Bihar)	Kurnool + Anantapur (Andhra Pradesh)	Bijapur (Karnataka)
Name	Type					
India Post	post office	197	168	285	1707	405
APGB	business correspondents				596	
State Bank of India	business correspondents				310	26
Syndicate Bank	business correspondents				180	138
Andhra Pragathi Grameena Bank	regional rural bank				197	
Andhra Bank	business correspondents				154	
Kaveri Grameena Bank	business correspondents					146
Syndicate Bank	public sector bank	3	11	3	82	37
Andhra Bank	public sector bank				89	
Canara Bank	public sector bank	4	21	13	35	10
State Bank of India	public sector bank	12	23	25		21
Spandana MFI	microfinance institution			0	79	
Punjab National Bank	public sector bank	26	35	6	3	1
Karnataka Vikas Grameena Bank	regional rural bank					66
State Bank of Patiala	public sector bank	48	18			
Uttar Bihar Gramin Bank	regional rural bank			59		
Central Bank of India	public sector bank	5	11	27	8	3
Axis Bank Ltd	private sector bank	12	11	6	14	1
State Bank of Hyderabad	public sector bank				41	2
HDFC Bank Ltd	private sector bank	14	12	1	13	1
Oriental Bank of Commerce	public sector bank	19	17	2	3	
Canara Bank	business correspondents				32	8
ICICI Bank Ltd	private sector bank	11	7	1	18	2
Punja and Sind Bank	public sector bank	24	12			
Ing Vysya Bank Ltd	business correspondents				22	8
Union Bank of India	public sector bank	5	10	1	4	9
Bank of India	public sector bank	4	3	9	9	1
Allahabad Bank	public sector bank	7	5	9	2	1
Ing Vysya Bank Ltd	private sector bank	1			18	5
Vijaya Bank	business correspondents				2	22
Bank of Baroda	public sector bank	4	5	4	8	2
Corporation Bank	public sector bank	4	4		12	3
SKS	microfinance institution		4	9	9	
Vijaya Bank	public sector bank	1	1	1	12	5
Corporation Bank	business correspondents				14	4
Indian Bank	public sector bank	1	6	1	8	1
Indian Overseas Bank	public sector bank	2	1	1	8	1
UCO Bank	public sector bank	1	7	2	2	1
Union Bank of India	business correspondents				6	6
IDBI Bank Ltd	public sector bank	1	2	1	6	1
Karur Vysya Bank Ltd	private sector bank		1		7	
Karnataka Bank	private sector bank					7
Dena Bank	public sector bank	1	2	3		
State Bank of Mysore	public sector bank					6
Andra Bank	public sector bank	1	3			1
Bank of Maharashtra	public sector bank	1	1	1		2
Indusind Bank	private sector bank	1	3	1		
Bank of Baroda	business correspondents					4
Federal Bank Ltd	private sector bank	2	2			
Karnataka Bank	business correspondents					4
Lakshmi Vilas Bank	private sector bank				4	
United Bank of India	public sector bank	1	1	1		
Kotak Mahindra Bank Ltd	private sector bank	1	1			
Yes Bank Ltd	private sector bank	1	1			
Jammu & Kashmir Bank Ltd	private sector bank		1			
State Bank of Bikaner & Jaipur	public sector bank		1			
total		415	411	472	3714	961

### **Agent networks**

- There is a substantial number of mobile money providers in India, although the penetration rate is much lower than in Africa. The 13 providers are: Alpha Money, Beam Money, Eko, Idea Money, M-PESA, Mobile Money, MoneyonMobile, mRupee, Oxigen Wallet, State Bank Mobicash, Sauvidhaa Money, Union Bank Money.
- Bank linkage models are:
  - Service provider model by private banks
  - Kisan Credit Card model (private banks, regional rural banks, coop banks)

Business correspondent model of private banks.

### **Agricultural insurance**

- India has by far the largest agricultural insurance market in developing countries: the national agricultural insurance scheme (NAIS) which insures close to 25 million farmers annually. The insurance - managed by the public insurer AICI - is compulsory for farmers who borrow from financial institutions and is based on area yield. Yet, 95 million farmers are not covered, and the system is open-ended which poses a risk for the state budget. Pilots with alternative schemes have been done since. More recently, two initiatives have tried to overcome the limitations of NAIS: the modified NAIS (mNAIS), and the Weather-Based Crop Insurance scheme (WBCIS). Also Syngenta Foundation India (SFI) started a pilot on weather insurance: a replanting guarantee, based on their experience in Kenya.

The Modi government launched a new crop insurance initiative in 2016: the Prime Minister's Crop Insurance Scheme, aiming at increasing the coverage to 50% of all farmers.

### **5.4.2 Nepal**

In Nepal, CCAFS is active in 5 districts, all along the southern border of the country, at the foot of the Himalaya Mountains (Figure 5.4.2):

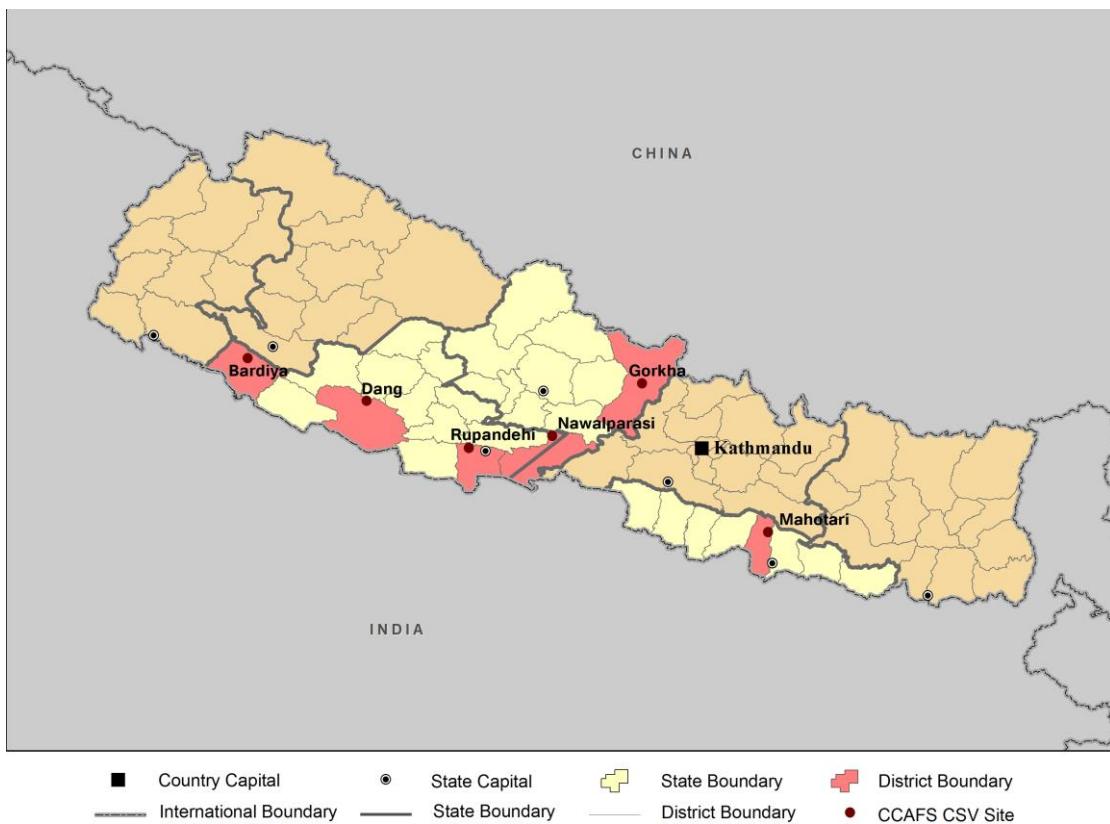
- In province no. 5: districts of Bardiya, Dang and Rupandehi
- In province no 4: districts of Nawalparasi and Gorkha
- In province no.2: district of Mahottari

The central bank of Nepal (NRB) has licensed 4 forms of financial institutions in the country:

- Class A: 30 commercial banks
- Class B: 73 development Banks
- Class C: finance companies
- Class D: 41 microfinance financial institutions
- 15 savings & credit cooperatives, 27 NGOs, 8 other institutions

Government policy is to beef up financial inclusion, by stimulating commercial banks to step into rural microfinance, and by bringing financial NGOs under Class D regulation, with heavier supervision and requirements. The potential beneficial effects of this policy on the sector are disputed.

**Figure 5.4.2. Nepal: Five CSV AR4D sites in three provinces.**



There are no geodata available on microfinance supply in Nepal. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

#### Banks (Class A/B/C)

- Agriculture Development Bank: Created in the 1970s as a state-owned development bank. With the new financial sector law of 2004, it became a state-owned commercial bank.
- A number of commercial banks (class A and B) have opened microfinance subsidiaries, to benefit from recent government policy.
- A number of financial NGOs have transformed their microfinance operations under a banking licence.

The following three refinance institutions (second tier) have been established to provide wholesale loans to different MFIs in Nepal:

- Rural Microfinance Development Center (RMDC): An apex fund that lends resources to cooperatives (220), financial intermediary NGOs (26), Microfinance Development Banks (19) and Development Banks implementing microfinance programs (10). Its outstanding loan portfolio is about USD 220 million.
- Rural Self-Reliance Fund (RSRF): A smaller whole lending facility, aimed at non-bank MFIs
- Sana Kisan Bikas Bank (Small Farmers Development Bank): Aimed at wholesale financing of small farmers agricultural cooperatives and rural MFIs

### **MFIs (Class D):**

The Mixmarket shows as top five MFIs the following (without specifying whether they belong to Class D or to Class A/B/C):

- Nirdhan: 256,000 clients, in savings and credit
- CBB (Chhimek Bank): 243,000 clients, in savings and credit.
- SB Bank (Swabalamban Laghubitta Bikas Bank): Microfinance bank, 197,000 clients, in savings and credit
- PGBB (Pashchimanchal Grameen Bikas Bank): 176,000 clients, in savings and credit
- JBS (Jeevan Bikas Samaj): NGO, 163,000 clients, in savings and credit

### **Community-based finance:**

In Nepal, large numbers of small informal savings & credit cooperatives exist, sometimes called Savings & credit Groups (SCG), Self-Reliance Groups (SRG) or Self-Help Groups (SHG).

It is unclear how many of these unregistered groups exist. Estimates vary from 8,000 -50,000.

MercyCorps mentioned an estimate of 8,000-50,000 groups, in its microfinance assessment of 2008.

In Nepal, there are no initiatives promoting village savings and loans associations (VSLA) and similar models (according to Thesavix.org).

### **Value-chain finance**

- In Rupandehi<sup>10</sup>: Rice-wheat is common cropping pattern followed with legumes in the rotation. However, in recent years, vegetables and banana fruits crops, sunflower, organic vegetable farming and cereal seed production have also added in the agricultural systems. Most farmers integrate livestock with crop production in the district. Cattle, buffaloes, chicken and goats are common livestock species
- To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### **Agent networks**

- The Mobile Money Tracker (GSMA) reports 3 mobile money services for Nepal: Bill Payment, Fonepay, Hello Paisa.

### **Agricultural insurance**

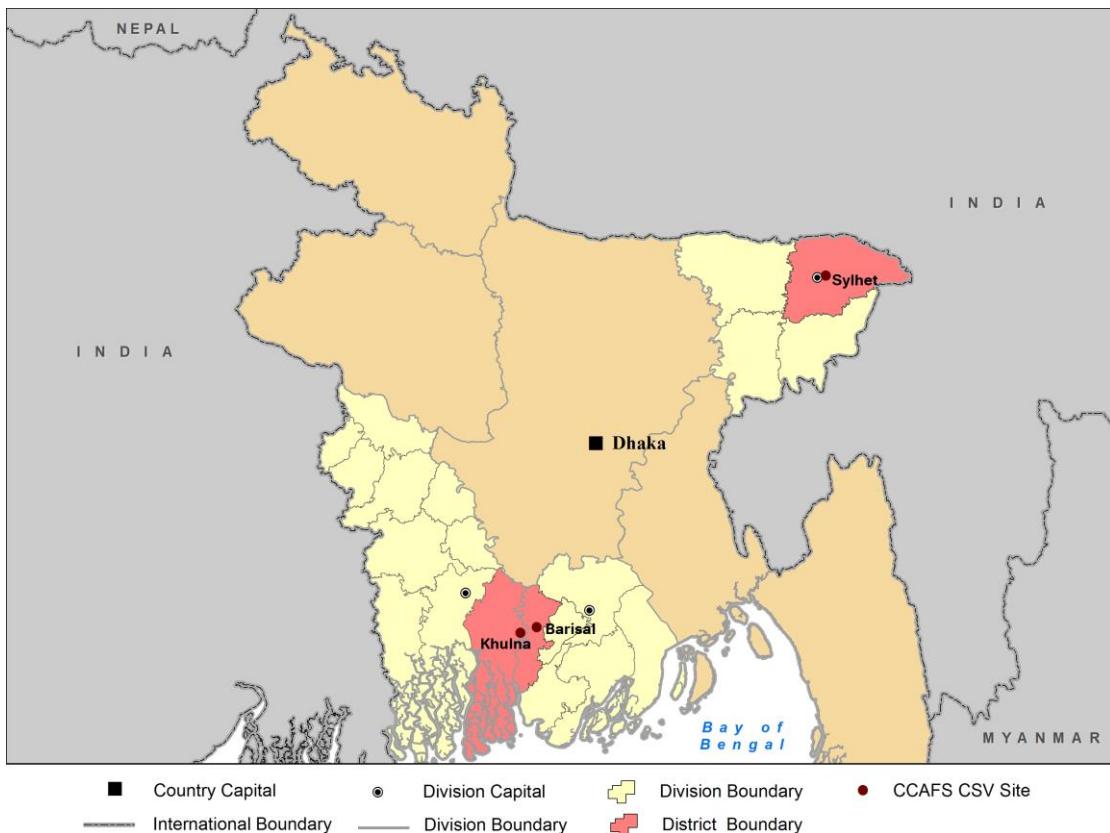
- In Nepal, the government announced its ambition to launch crop and livestock insurance programs in 2013.
- So far, fragmented small-scale experiences have been functioning in different non-regulated markets:
  - Livestock insurance: the Deposit and Credit Guarantee corporation (DGGC), the Community Livestock Development Project, the Small Farmers Ltd (founded by the Agricultural Development Bank), Centre for Self-Help Development, Participatory District Development program.
  - Crop insurance: Banana and Vegetable Pilot Insurance program.

<sup>10</sup> The CCAFS Site Portfolio (Förch et al., 2013) only offers information on the Rupandehi district. Similar information on the other 4 districts is not available for this quick scan.

### 5.4.3 Bangladesh

In Bangladesh, CCAFS is mainly active in the South-West coastal region of Bangladesh, specifically in the Bagerhat and Satkhira districts (Khulna Division), and in the Pirojpur and Jhalokhati Districts (Division of Barisal). Additionally CCAFS is active in the North-East of the country, in Sylhet (Division of Sylhet). Population density in Bangladesh is very high, at 370/km<sup>2</sup> in the Bagerhat district (Figure 5.4.3).

**Figure 5.4.3. Bangladesh: Bagerhat and Satkhira districts (Khulna Division), Pirojpur and Jhalokhati Districts (Division of Barisal) and Sylhet (Division of Sylhet)**



There are no geodata available on microfinance supply in Bangladesh. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the five largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

**Banks:** Bangladesh counts with two specialised banks for agriculture ('krishi'), both state-owned, and created in the 1970s/1980s:

- **Bangladesh Krishi Bank (BKB):** 952 branches, mostly rural. BKB gives importance to accumulation of rural small savings through its branches. The Bank provides loans and advances to different sectors, namely crop and fisheries, agro based industry (which includes large and medium industry, small and cottage industry), poverty alleviation, retail business and services such as transportation, communication, insurance, working capital loan etc.

- **Rajshahi Krishi Unnayan Bank (RAKUB):** Created especially for the poorer North-West region of Rajshahi, and as such not so relevant to our quick scan.

**SME financing facilities through banks:** There is a series of SME refinancing facilities, in which a large number of private and public banks participate.

**MFIs:** Bangladesh is one of the front-running countries in microfinance, since the foundation of Grameen Bank in the 1970s. Its high population density has made it possible to cover a substantial share of the population below the poverty line: nearly 60% of the rural households were covered (2012). The creation of the PKSF wholesale lending fund for MFIs contributed to this growth. More than 90% of microfinance clients are women. Yet, MFIs in Bangladesh have mainly supported rural non-farm activities, although in recent years they have started supporting agriculture and urban activities.

The top three MFIs cover about 75% of the market:

- **Grameen Bank:** Social bank with over 2,500 branches and 81,000 villages served, with 8.64 million clients (members). Credit is the main activity of Grameen Bank, including group loans, individual loans, loans for small entrepreneurs, housing loans, children scholarships and higher education loans, loans for village phones. Savings deposits are an increasing category of service. They also offer life and loan insurance. Grameen Bank does not seem to have a zonal office in Bagerhat, but in the neighbouring districts of Khulna and Pirojpur; whether the Bagerhat district enjoys services of Grameen Bank remains to be checked in the next phase, that is, after the present quick scan report.
- **BRAC:** Largest NGO in the world, with operations in 11 countries in microfinance, health, education, water/sanitation/hygiene, agriculture & food security, ultrapoorn and social enterprises. For its microfinance operations it has created BRAC Bank. It serves about 6 million microfinance clients in Bangladesh, with credit and savings services. Their credit services include microfinance for women, small enterprise finance, agricultural microfinance, migration loans. BRAC Bank has one branch office in Bagerhat city.
- **ASA:** MFI with 7 million microfinance clients, and parallel programs on agriculture, health, sanitation, education and remittances. ASA claims to be the most efficient MFI in the world, because of its extremely streamlined operations. It has about 33 branch offices in the Bagerhat district, including 2 in Bagerhat city and 2 in Marrelganj. Their main loan products are the primary loan for short-term credit up to USD 885, and the special loan for medium-term credit up to USD 12,500. ASA also offer different types of savings services, as well as loan insurance and international remittances for expat Bengali and their families.

### Community-based finance

In Bangladesh, there are no initiatives promoting village savings and loans associations (VSLA) and similar models (according to Thesavix.org).

### Value-chain finance

- Main crops in the area are paddy, wheat, jute, sugarcane, potato, banana, onion, garlic and spices. Main fruits are mango, jackfruit, banana and papaya. Generally, the cropping pattern is aus/jute followed by winter crops or transplanted aman followed by winter crops. Besides rainy paddy, boro paddy is also grown wherever irrigation facilities are available. Most shrimp culture activities in the Bagerhat are carried out in ghers located on land protected from the sea by polders (very large dikes).
- To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### Agent networks

- The Mobile Money Tracker (GSMA) reports 13 mobile money initiatives in Bangladesh: DBBL Mobile Banking, Hello, IFIC Mobile Banking, mCash, MobiCash Bill Play, Mobile Cash, MYCash, OK Banking, Robi mPay, SureCash, trust Bank Mobile Money, UCash.

### **Agricultural insurance**

- A 2010 World Bank study indicated that pilots had been done by SBC, the public insurance company, with multi-peril crop insurance (MPCI) in the period 1977-1995, but that these pilots were ended in 1995 due to low uptake rates and underwriting losses. A few MFIs are offering livestock insurance (Proshika, Grameen Fisheries and Livestock Foundation, PBK, DSK, GUK), but no crop insurance.

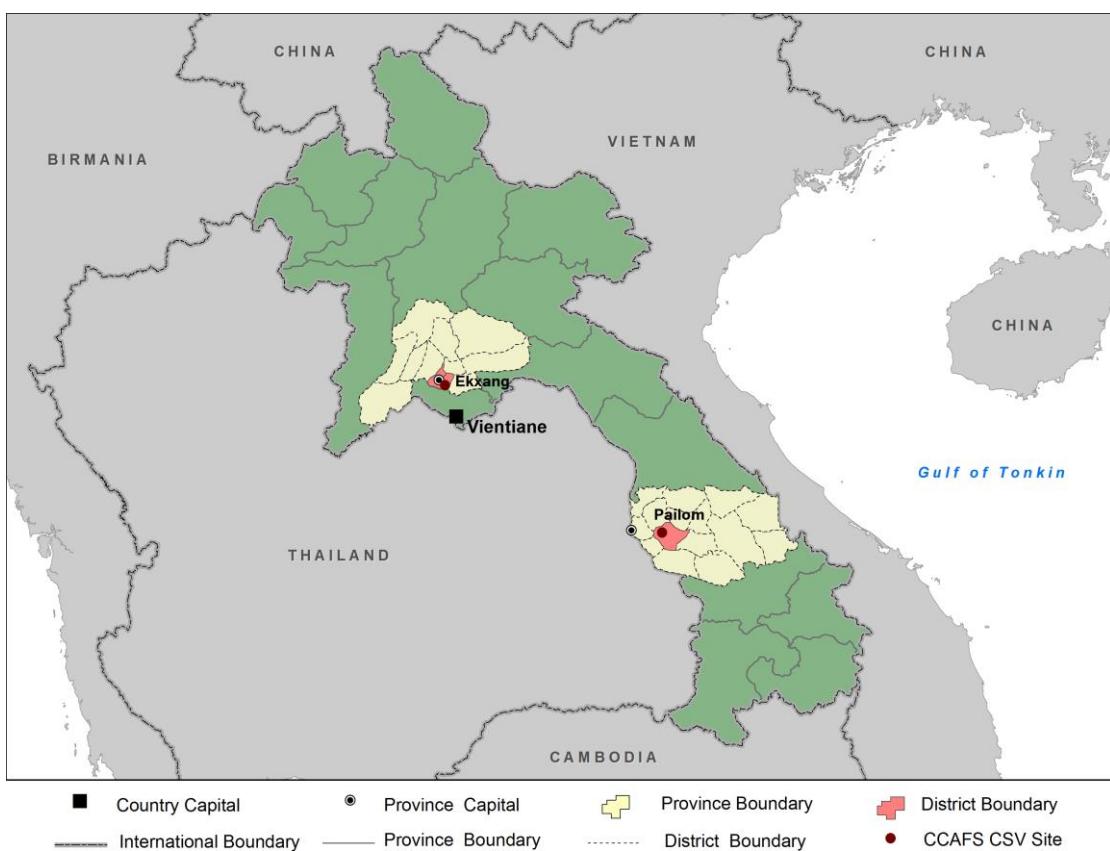
## 5.5 South-East Asia

In South-East Asia, CCAFS is active in Lao PDR, Cambodia, Vietnam and the Philippines.

### 5.5.1 Lao PDR

In Lao PDR, CCAFS is active in two provinces and districts: in the Viengkham and Phonhong district of the Vientiane province (at 70 km North of the capital city Vientiane), and in the Champhone district of the Savannakhet province, at about 465 km south-east of Vientiane (Figure 5.5.1)

**Figure 5.5.1. Lao PDR: Vientiane and Savannakhet provinces.**



Lao PDR has a young but gradually growing microfinance sector. In two subsequent GIZ surveys, it showed that the number of MFIs grew from 26 (2009) to 42 (2011). By 2015 some new MFIs had entered the market, including the ACLEDA Bank from Cambodia.

Still, the number of members or clients of microfinance is quite low compared to many other countries. In 2015, the total number of credit and savings clients was 72,000 and 234,000 respectively. The MFIs all together serve about 29% of the villages in the country (2495 of the 8636 villages).

There are 4434 village funds (also called village banks), an unregulated form of savings and credit. These funds have a total of 430,000 members, which makes them the largest

microfinance subsector in the country. The number of villages served by the village funds may be somewhat lower than 4434, because some villages may have more than one fund.

There are no geodata available on microfinance supply in Lao PDR. Therefore the list below contains the most relevant financial institutions in the Central Region: the banks that are known for their involvement in agriculture, and the largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

### Banks

- **Agricultural Promotion Bank (APB):** One of the three state-owned commercial banks. Was heavily reformed in the period 2007-2014, to turn more towards agriculture and increase its outreach and impact. In 2012 it had over 26,000 credit accounts.
- **Commercial banks:** Laos has 9 commercial banks, of which 7 are fully private and 2 have a mixed private-public ownership structure. Moreover there 10 branches of foreign commercial banks.

### MFIs

- **Deposit-taking MFIs (DTMFI)**
  - ACLEDA Lao: largest MFI in the country, subsidiary of ACLEDA Bank Cambodia. Client base of 62,000 clients, for savings and loans services.
  - Ekphatthana Microfinance Institution (EMI): 79,000 clients, mostly for savings deposits but also for loans.
  - XMI: 30,000 clients, for savings and loans
  - Lao Post Microfinance Institution
  - Newton MFI : 17,000 clients, mainly savings but also loans
  - Saynhai Samphanh MFI: 6800 clients
  - MFI Champalao: 4900 clients, mainly savings but also loans
  - MFI Seng Ali
  - MFI Mani
  - MFI Bor Kham Chaleurnsub
  - MFI Development
  - MFI Patoukham: 1,000 clients for savings and loans
- **Non-deposit-taking MFIs (NDTMFI):** There are 6 NDTMFIs in the Central region, with a total of 7850 clients.
- **Savings & Credit Unions (SCUs):** There are 11 small SCUs in the Central region, with a total of 8551 members (2011).

### Village funds

- There are 4,434 village funds in the country, with 430,000 members in total. This makes the village funds the largest microfinance subsector in Lao PDR. Most of the village funds (80%) are deposit-taking and thus offer savings services; the other 20% provide credit only, with external sources of capital, and are generally smaller in average members. In the Central region, where 60% of the VFs are located, VFs have an average size of 117 members. Village funds are promoted by a total of 192 village fund promoters.

### Value-chain finance

- The major crops in Lao PDR are rice, coffee and opium (legal in the Lao PDR), and in lesser volumes cardamom, corn, cotton, fruit, mung beans, peanuts, soybeans, sugarcane, sweet potatoes, tobacco, and vegetables. To the extent that such value-chains are well-

organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

#### Agent networks

- No mobile money services are reported by the GSMA Mobile Money Tracker.

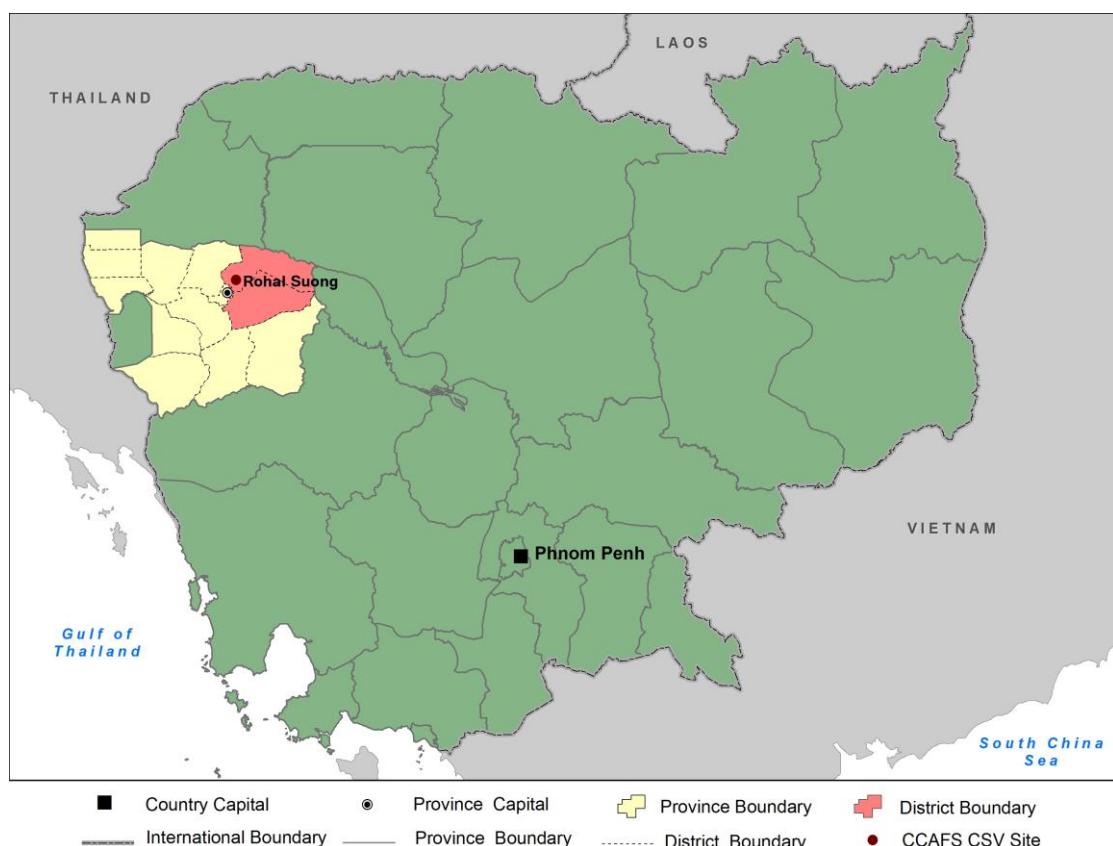
#### Agricultural insurance

- Lao's Strategy for Agricultural Development mentions the ambition to develop a systemic approach to risk management, including insurance schemes for the most vulnerable.

### 5.5.2 Cambodia

In Cambodia, CCAFS is active in the Eak Phnom and Sangkae districts in the Battambang province, at 340 km North West of the capital city Phnom Penh, near the border with Thailand (Figure 5.5.2). The Eak Phnom district is 35 km away from Battambang city, the provincial capital with around 250,000 inhabitants.

**Figure 5.5.2. Cambodia: Eak Phnom and Sangkae districts in the Battambang province.**



There are no geodata available on microfinance supply in Cambodia. Therefore the list below contains the most relevant financial institutions in the country: the banks that are known for their involvement in agriculture, and the largest microfinance institutions (*with exception of*

*(those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site).*

#### **Banks<sup>11</sup>**

- **ACLEDA Bank:** Microfinance bank, the largest microfinance entity in the country, with 1.6 million clients. More oriented to urban and salaried customers, as well as SMEs, rather than to farmers.
- **Canadia Bank:** Offers among others SME loans, besides a wide array of banking services.
- **ANZ Royal Bank (Australia New Zealand Banking Group):** Offers a wide array of banking services.

**MFIs:** the MFI sector is quite vibrant and has a total outreach of 3.4 million clients. According to the MIMOSA study (MIMOSA 2015), Cambodia risks being oversaturated in microcredit in almost all its provinces. In the province of Battambang oversaturation is still mild, and a substantial number of farmers may still experience lack of access to finance.

- **PRASAC:** Second-largest MFI, with 462,000 clients. Emerged in 2000 from a rural development project of the EU. Oriented towards rural credit. Offers a wide range of savings and loans products (also for groups, SME, microloans), but not specifically for agriculture.
- **HKL:** 215,000 clients, nation-wide branch network. Emerged from a food security and farming project in the 1990s. Offers a wide range of services, including savings, loans, transfers, mobile top-ups. Loans for agriculture not mentioned on the website.
- **AMRET:** 175,000 clients. Has several offices in Battambang. Offer solidarity groups loans, as well as individual loans, including loans for SMEs, agriculture (//Agrifin/WB) and biodigesters.
- **AMK:** 163,000 clients. Has several offices in Battambang. Says it reaches out to 88% of all villages in Cambodia, among others through agent-based mobile banking. Offers savings and credit services (also for group loans, agriculture, business expansion).
- **VisionFund Cambodia:** Member of the global VisionFund, linked to the NGO WorldVision (USA). Offers savings services, as well as loans for MSMEs, agriculture, small business. Has an office in Battambang.
- **KREDIT:** 92,000 clients. Offers loans for community banks and individuals, savings services, transfers.

#### **Community-based finance**

In Cambodia, village savings and loans associations (VSLA) and similar models are deployed by:

- CARE, and Oxfam with a total of 1,942 groups and 29,705 members.

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS priority areas.

#### **Value-chain finance**

- The major crops in Cambodia are rice, maize, cassava, sweet potatoes, groundnuts, soybeans, sesame seeds, dry beans, and rubber. Also sugarcane, cotton, and tobacco. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

#### **Agent networks**

- There are 5 mobile money services available in Cambodia: AMK Money Transfer, Asia Wei Luy, E-money, SmartLuy, True Money.

<sup>11</sup> Most relevant to agribusiness, according to WB study 2013

### Agricultural insurance

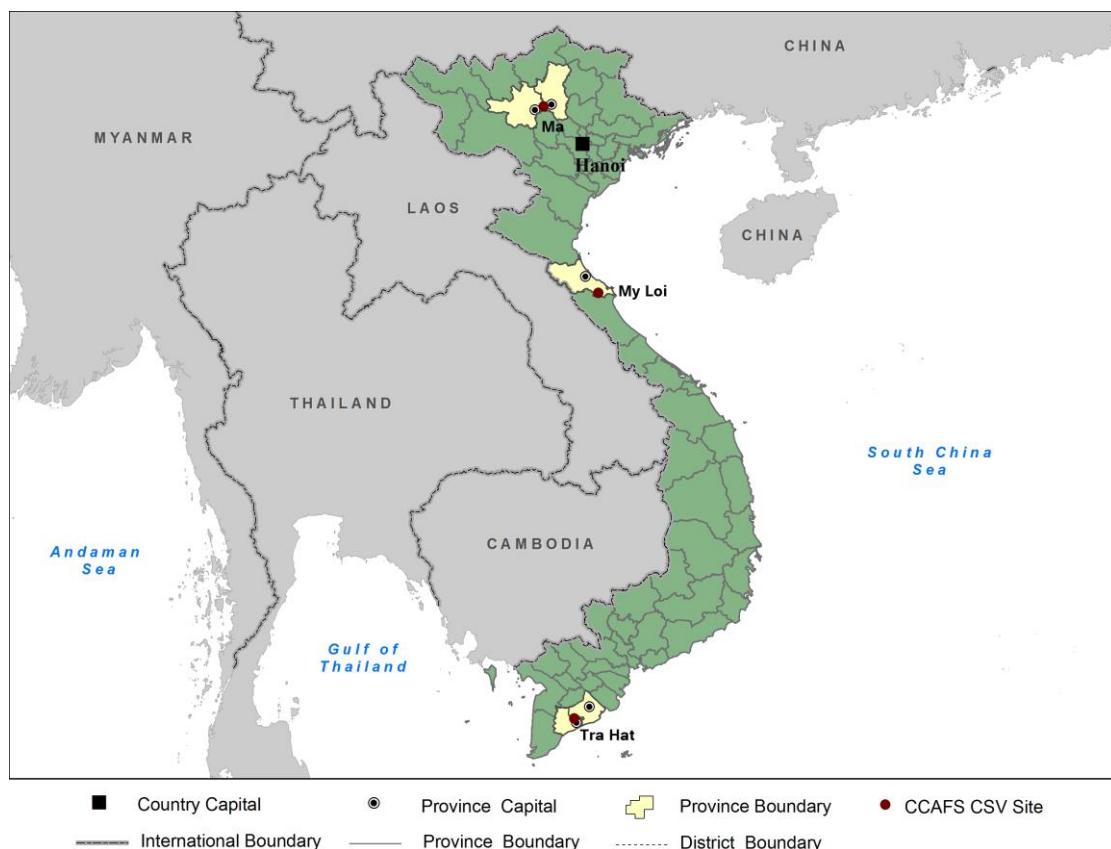
- The first agricultural insurance in Cambodia was launched in 2015, to insure rice farmers against crop losses. It is a joint initiative of Achmea Netherlands with the Cambodian Center for Study and Development in Agriculture (CEDAC), creating the Cambodian Agriculture Cooperative Insurance Company (CACIC).

### 5.5.3 Vietnam

In Vietnam, CCAFS is active in 5 different provinces, spread all over the country (Figure 5.5.3):

- the Yen Binh district (Yen Bai province), as well as the Yen Son district (Tuyen Quang province) (highland), 200 km north-west of Hanoi
- the Ki Anh district, in the coastal Ha Tinh province, 365 km south of Hanoi
- the districts of Hoa Binh and Vihn Loi, both in the Bac Lieu province (far South), 290 km south-west of Ho Chi Minh city
- the Thanh Tri district (Soc Trang province), 180 km South-West of Ho Chi Minh city.
- Additionally a specific CCAFS activity (not a CSV AR4D site) takes place in the Hoang Pong commune of the Hoang Hoa district, in the Thanh Hoa province, 160 km South of Hanoi.

**Figure 5.5.3. Vietnam: Provinces of Yenbai and Tuyen Quang, Ha Tinh, Bac Lieu and and Soc Trang**



Different from many other countries, Vietnam's microfinance market is heavily dominated by the state. State-owned institutions such as VBSP and VBARD are dominant microfinance players, although the emerging MFI sector is increasing in importance.

VBSP and MFIs serve lower-income segments, with MFIs having the lowest average loan size. PCFs and VBARD serve the less poor segments.

There are no geodata available on microfinance supply in Vietnam. Therefore the list below contains the most relevant financial institutions at national level: the banks that are known for their involvement in agriculture, and the largest microfinance institutions (*with exception of those institutions from which we know from web sources that they are not at all present near to the CCAFS CSV AR4D site*).

### Banks

- **VBSP (Vietnam Bank for Social Policies):** VBSP is a state-owned bank operating as a tool of Vietnamese Government to fight against poverty. Accounts for 65% of all clients of the microfinance system. VBSP was separated in 2002 from VBARD, because the government wanted to separate 'policy lending' from commercial lending. VBSP works through 4 mass organisations (Women Union of Vietnam, Farmer Union of Vietnam, War Veteran Union of Vietnam, Youth Union of Vietnam). These organisations organise the savings and credit groups, certify the poor household for eligibility, and supervise the use of the loans.
- **VBARD (Vietnam Bank for Agriculture and Rural Development):** Accounts for 14% of all clients of the microfinance system. VBARD has lost many clients to the emerging MFI sector.
- **Cooperative Bank:** Apex institutions of the PCFs (see below), transformed originally from the Central People's Credit Fund.
- **Commercial banks:** There are 49 commercial banks in Vietnam. Their relevance for smallholders, however, is limited.

### MFIs

- **People's Credit Funds (PCF):** PCFs are credit and savings cooperatives owned and often initiated by the farmers themselves. There are 1130 PCFs in the country, with about 1.8 million members in total. PCFs offer savings, loans (also for agriculture) and transfers. The PCF's are united into the Vietnam Association of PCFs (VAPCF).
- **TYM:** One of the two officially-licensed MFIs in the country. It was founded by the Vietnam Women's Union. TYM offers savings and credit, also for agriculture.
- **M7:** Also a licensed MF, operating in the North of the country, and focusing on poor women and ethnic minorities. It offers loans to groups of 5 persons, for an agricultural season (6 months), or up to 12 months or 18-24 months (medium-term).
- **50 semi-formal MFIs:** The other 50 MFIs are semiformal, supported mostly by mass organisations, as well as social funds of local governments, and donors.

### Community-based finance

In Vietnam, village savings and loans associations (VSLA) and similar models are deployed by:

- Plan International

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS priority areas.

### Value-chain finance

- The major export crops in Vietnam are rice, coffee, cotton, peanuts, rubber, sugar cane and tea. To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### Agent networks

- The only mobile money service known from Vietnam is Momo, operated by mService.

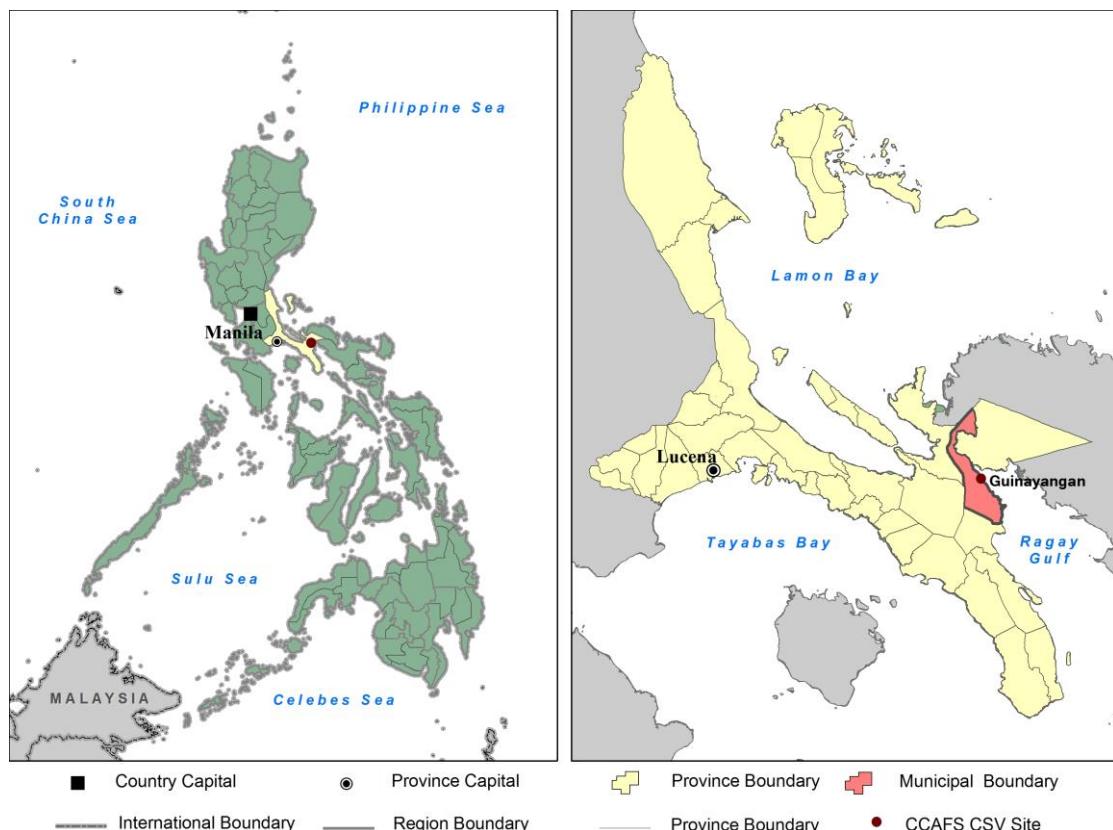
### Agricultural insurance

- Agricultural insurance has been piloted by the Bao Viet Insurance Corporation, for rice, rubber and dairy. Also the French Groupama company has piloted agricultural insurance. But both companies struggle with the profitability and market reach of this insurance. Micro insurance is a very recent phenomenon in Vietnam. In 2013, first experiments were allowed for the Community Finance Resource Center in collaboration with the MFI M7, and for an insurance entity affiliated to the MFI TYM. A formal regulation for microinsurance was expected in 2015.
- In August 2016, the ASEAN Climate Resilience Network had a conference in Vietnam to discuss the role of agricultural insurance to increase their resilience to climate change.

### 5.5.4 The Philippines

In the Philippines, CCAFS is active in Guinayangan, a rural municipality in the province of Quezon (region of Calabarzon), on the island of Luzon. The municipality counts 45,000 inhabitants (Figure 5.5.4).

**Figure 5.5.4. Philippines: municipality of Guinayangan (province of Quezon)**



In the municipality of Guinayangan, the following FS providers are present (according to Finclusion Lab):

### Banks

- **Land Bank of the Philippines:** State bank created in the 1960s - in the framework of the agrarian reform - to finance the acquisition and distribution of agricultural estates for division and resale to small landholders, and to provide credit to smallholders. Was reorganised into a universal bank for the countryside. Offers the full range of banking services, including loans for farmers, fishers and SMEs.
- **Several rural banks:** Rural banks in the Philippines are generally small local banks, with low capital requirements and limited bank charters. They are for-profit and offer services to the general public in the countryside, including farmers and SMEs. They tend to be quite conservative and risk-averse in their lending policies (Kocourek 2015). The Finclusion website reports only one rural bank in the municipality of Guinayangan, without mentioning its name because rural banks are typically small and do not belong to the top fifty financial institutions of the country. But from a quick web search it appears that there are several rural banks represented in Guinayangan:
  - Rural Bank of Calaug
  - Rural Bank of Tagkawayan
  - Quezon Capital Rural Bank (QCRB)

### MFIs

- **Card Bank:** Largest MFI of the country in terms of client outreach, with over 900,000 clients and 55 branches. Created by the NGO CARD (Center for Agricultural and Rural Development), with which it is still affiliated. They offer micro and SME loans, also for agriculture. They have an office in Guinayangan.
- **5 NBFIs w/o QB:** The municipality of Guinayangan has 5 'non-bank financial institutions without quasi-banking functions' represented. These NBFIs are financial institutions supervised by the central bank. They do not have a full banking licence but they facilitate bank-related financial services, i.e., investment, risk pooling, contractual savings and market brokering. NBFIs without quasi-banking functions borrow money from less than 20 lenders. The names of the NBFIs located in Guinayangan are not published on the Finclusion website, as they are relatively small and do not belong to the top fifty financial institutions of the country.

### Community-based finance

In the Philippines, village savings and loans associations (VSLA) and similar models are deployed by:

- World Vision with a total of almost 3000 groups and 64,000 members.

Based on this quick scan, we cannot confirm whether these activities relate to the CCAFS priority areas.

### Value-chain finance

- The major crops in Guinayangan are coconut, rice, banana, corn, root crops, legumes and fruits, as well as livestock and fishery (Municipality of Guinayangan, 2017). To the extent that such value-chains are well-organised, financing might be available from value-chain actors (traders, processors, cooperatives, input and equipment dealers).

### Agent networks

- There are 2 mobile money services available in the Philippines: GCash and Smart Money.

### **Agricultural insurance**

- Agricultural insurance is offered by the Philippines Crop Insurance Corporation (PCIC), a government-owned corporation. Insurance (indemnity-based) is available for rice, corn, livestock, fisheries, agricultural assets, high-value agricultural crops and accidents. The premium is subsidised for farmers that cultivate less than 7 hectares. In case the insurance is tied to a loan, the financial institution (f.i. Land Bank) also pays a share of the premium. Even with the government subsidy, the insurance penetration rate remains low, especially for rice and corn.

## 6. Conclusions and perspectives

The mapping, though limited and sketchy in nature, has generated interesting ‘raw material’ that can be exploited in the next phase of the project. A few cross-cutting observations can be made at this stage:

- Banks are generally represented in the cities and larger towns. CCAFS districts that are close to such urban centres, may have several banks close by. However, this does not mean that these banks are necessarily relevant to the CSA activities of smallholder farmers and/or SMEs. Only some of the banks have services that are suitable for smallholders, often banks that originate from some kind of social objective (cooperative banks, microfinance banks, development banks), or banks that are strongly rooted in agriculture and the rural economy (agricultural banks, rural banks). Another stretch of banks has explicit services for SMEs. In the CCAFS CSV AR4D sites in India, it is striking to see the long list of banks, many of them public, in the districts where CCAFS is active: it will be interesting to explore the potential of this network for supporting CSA activities.
- MFIs and SACCOs differ substantially in modalities and degrees of development per country. Bangladesh, with its giant MFIs, is a world apart from Lao PDR where the MFIs are quite small and cover a modest fraction of the population. Some of the SACCOs are formally-licensed and supervised financial institutions, but in several countries large numbers of small informal SACCOs exist in the rural areas. Like in the case of banks, not all MFIs and SACCOs are automatically relevant for the CSA activities: the services most suited to smallholders come from MFIs and SACCOs that have a strong natural connection with agriculture and rural life.
- Village-based financial services can be found in almost all countries. Some are rooted in country-specific developments, such as the village funds in Lao PDR or the People’s Credit Funds in Vietnam. Others are spin-offs of international development agencies, such as the VSLA, *bancos comunales* and similar models. The strength of these models is the proximity to the rural community, and their self-reliant governance. Their limitations lie often in their limited linkages with external capital streams.
- Value-chain finance can be a substantial source of funding for agriculture, especially in tighter value chains. The present mapping was limited in identifying concrete sources for specific districts, other than indicating the most important crops where the CSA potential of value-chain finance might be further explored.
- Mobile money services (through mobile phone) have now emerged in many countries. In some African countries more than 10% of the financial accounts of the population are mobile money accounts (source: World Bank 2014), although a certain share of these accounts remains dormant. The network of service points (mobile money agents) is

typically much larger than any other financial service provider's branch network, which makes them easy to reach. In case a CSA activity would require many small money transactions, it would be worthwhile to explore whether mobile money could be part of the solution.

Similarly, agent banking networks are also growing very fast. In East Africa, bank agents (shopkeepers that administer simple account transactions on behalf of banks) are already the second largest outlet network, immediately after mobile money. Also the business correspondent model in India is an example of the same phenomenon.

- Agricultural insurance is still experimental or small scale in most of the countries. But in India it is an industry with decades of experience, and also in Kenya the step towards scaling is being made.
- Financial services often have a gender and age bias. Globally, the percentage of men with an account is about 9% higher than the percentage of women with an account (59% vs 50%); this gender gap is highest in South Asia (18%) (Source: World Bank, 2014).

However this global average conceals many contextual differences, as we have seen in the country sections of this document. Some FS providers and their services are more oriented towards women, such as VSLAs, *bancos comunales* and many microfinance institutions. On the other hand, agricultural finance is more often oriented towards men, at least in majority. Young people (15-24 years old) have more difficulty to access financial services, mostly in the case of credit where FS providers attach great importance to track record and experience.

The information about FSPs and financial products in this mapping necessarily remained quite general at this stage. This is due to the limitations of the assignment, combined with the wide spectrum of CSV locations, and the wide range of potential clients between smallholders and SMEs. Further steps can be made after the shortlist of field cases has been defined, and the demand side for financial services has been investigated (the survey on 'Understanding the demand for financial products and services in CSA in the CCAFS priority areas'). At that stage, field missions will be necessary to explore realistic finance solutions for specific CSA situations, in dialogue with CCAFS field teams, the farmers/SMEs and the FSPs.

## Future Perspectives

The present study can be used for the following two steps: 1) case selection, and 2) for the further development of the selected cases.

### ***Step 1: case selection***

The material contained in this study can be used for the case selection, as one of several ingredients (besides the case inventory, the demand survey and discussions with interested development partners). The key question is then:

*Are there FS providers in proximity to the CCAFS area, with sufficient affinity and scale, that could support the scaling of CSA?*

For the shortlisted cases, it will be important to verify the longlist of potential FS providers to work with. This is important, because the present study only used web-based materials. This check can consist of three elements:

- a) **validate the longlist:** Validate and complement the Supply of Financial Services from this web-based study, with the respective CCAFS field teams. (Which of the longlisted FS providers are potentially relevant for the CSA initiatives? Do these FS providers offer sufficient potential for the case studies?)
- b) **explore current FS collaborations:** Verify with the CCAFS field teams to what extent and how they are already collaborating with FS providers and development partners, and what potential this collaboration has for scaling CSA.
- c) **identify a development partner:** Identify whether there is a development partner who works with FS providers and who can act as counterpart of the WUR-CCAFS project. Having such a development partner in place will be essential for the case project, to complement roles that WUR and the CCAFS field team can play.<sup>12</sup>

### ***Step 2: case development***

Once the cases have been selected from the shortlist, and preliminary agreements have been made with a development partner for the cases, the material from this study can be used in

<sup>12</sup> The cases will research the effectiveness of different bundles of services (financial and non-financial) to promote CSA at scale. We assume that in most cases such services will be operated by specialized providers (banks, MFIs, extension services, etc.), rather than by the research organisations of CCAFS and WUR. We also assume that the role of stimulating and supporting these providers in adapting their services for CSA purposes, and of facilitating stakeholder collaborations, is a typical role of development partners, rather than of researchers. Hence the importance of establishing collaborations with development partners, also as a selection criterion for potential cases. A development partner could for example be an NGO, a government agency, a lead company in a certain value chain, a social investor, etc. Of course there will also be cases which can be developed without a development partner. But then the roles described above should anyhow be covered in the case design.

further designing the case. This starts with setting the case strategy, in dialogue between WUR, CCAFS field team and development partner:

- a) analyzing the **linkages** between CSA, business models and finance. This is two-way traffic between CCAFS and the development partner. It requires analysing the CSA aspects of the existing business models and financing portfolios, as supported by the development partner. And it requires looking into the business model and financing aspects of the CSA technologies proposed by CCAFS (for example: what is the credit demand related to the introduction of a certain CSA technology? is this technology profitable for the farmers? and how does it mitigate economic risks, for the farmers and for the FS providers?).
- b) identifying **win-win solutions** between the business models, financing and CSA, and thus between CCAFS and the development partner. These win-win solutions can contain different bundles of financial and non-financial services as well as non-reimbursable incentives. These bundles can be developed, tested and compared/evaluated throughout the pilot case. Also, combinations can be sought with climate finance and possibly disaster-response funding.
- c) developing a **strategy** for realising these win-win solutions (approach, stakeholders, key roles and responsibilities, phasing, global resource planning). This includes defining a strategy to identify and involve the most promising FS providers as key stakeholders, as early as possible in the process.
- d) defining **first activities** of the stakeholder process (activities, responsibilities, planning, monitoring, coordination)

One final observation: for the project it will make a substantial difference whether the smallholders or SMEs who want to step into CSA activities are already client of a given financial service provider. If they are, there is already a relationship of mutual trust and track record, and the project could really focus on the challenge - both for farmers and FSPs - of how existing financial services can be adapted to the CSA aspects of farming. That is a doable task in a limited project period. This will be quite different when the smallholders and SMEs are totally new to the financial service provider, or when their crop is not yet financed at all. The problem of financial access will then be much more fundamental and more difficult to resolve at the envisaged scale within a project's period.

## Appendix I. Useful data sources for measuring financial inclusion

### Data sources for demand-side and supply-side data

Demand-side data sources	Supply-side data sources		
Global Findex	Survey	IMF Financial Access Survey	National statistics
Finscope Survey/Finaccess Survey	Survey	GSMA Mobile Money Adoption Survey	Survey
Financial Inclusion Tracker Surveys	Survey	World Bank's Global Payment Survey	Survey
Financial Inclusion Insights Surveys	Survey	Finclusion Lab maps at MixMarket FSPmaps.com *	Geospatial maps Geospatial maps

Source: blog op CGAP website: <https://www.cgap.org/blog/10-useful-data-sources-measuring-financial-inclusion>

\* At the moment of this study, the FSPmaps.com website was not yet accessible.

Most of the data sources contain key statistics or survey outcomes on financial inclusion. Only a small minority presents data in a geo-specific way, that is, traceable to specific rural districts in the country. More detail on each source can be found in the blog itself (See Source).

## Appendix II. CCAFS countries and CSV AR4D sites

Region	Country	CCAFS CSV AR4D site	State/province/region	District/county where CSVs are located or other CCAFS activities are carried out
West Africa	Senegal	Kaffrine	Kaffrine region	Kaffrine commune
	Niger	Fakara	Kollo region	Fakara commune
	Mali	Cinzana	Ségou region	Cinzana commune
	Ghana	Lawra-Jirapa	Upper West region	Lawra-Jirapa district
	Burkina Faso	Yatenga	Loroum province	Yatenga
East Africa	Ethiopia	Borana	Oromia Region	Yabello district
	Tanzania	Lushoto	Tanga Region	Lushoto district
	Uganda	Hoima	Western Region	Hoima district
		Rakai	Central Region	Rakai district
	Kenya	Wote	Eastern Kenya	Makueni county
		Nyando	Western Kenya	Kisumu county
Latin America	Guatemala	Olopa	Chiquimula department Province of Verapaz	Olopa municipality
	Colombia	Cauca	Cauca department	Popoyán municipality
	Honduras	Santa Rita	Department of Copán	Santa Rita municipality
	Nicaragua	El Tuma la Dalia	Matagalpa department	El Tuma-La Dalia, municipality
	El Salvador	none		
	Peru	none		
South East Asia	Lao PDR	Ekxang	Vientiane Province	Viengkham and Phonhong Districts
		Pailom	Savannakhet Province	Champhone District
	Cambodia	Rohal Suong	Battambang province	Eak Phnom and Sangkae disctrict
	Vietnam	Ma	Yenbai Province	Yen Binh District
			Tuyen Quang province	Yen Son district
		My Loi	Ha Tinh Province	Ki Anh district
		Tra Hat	Bac Lieu Province	Hoa Binh district Vinh Loi District
			Soc Trang province	Thanh Tri district
			Thanh Hoa province	Hoang Phong commune, Hoang Hoa District
South Asia	India	Bihar	Bihar state	Vaishali and Samastipur district
		Punjab	Punjab state	Sangrur district
		Haryana	Haryana state	Karnal district
		Andhra Pradesh	Andra Pradesh state	Districts of Kurnool and Anantapur
		Karnataka	Karnataka state	Bijapur district
	Bangladesh	Khulna	Division of Khulna	Bagerhat and Satkhira Districts
		Barisal	Division of Barisal	Pirojpur and Jhalokhati Districts
		Sylhet	Division of Sylhet	District of Sylhet
	Nepal	Bardiya	Province no.5 (Harare)	Bardiya district
		Dang	Province no.5 (Harare)	Dang district
		Rupandehi	Province no.5 (Harare)	Rupandehi district
		Nawalparasi	Province No. 4	Nawalparasi district
		Mahotari	Province No. 2	Mahotari district
		Gorkha	Province No. 4	Gorkha district
	Philippines	Guinayangan	Quezon province	Guinayangan municipality

# References

## General references

- Baedeker, T. (2017), ‘Climate change and agriculture: a key opportunity for commercial lenders’, presentation at AgriFin webinar, 11 January 2017, Washington: World Bank.
- 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). Available online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org)
- CGAP (2009), Product development for microfinance institutions’, CGAP Course Series *Skills for microfinance managers*, Washington: CGAP/World Bank.
- Dalberg. (2016). Inflection point: unlocking growth in the era of farmer finance. Initiative for Smallholder Finance/Mastercard Foundation/Rural & Agricultural Finance Learning Lab.
- Förch W, Sijmons K, Mutie I, Kiplimo J, Cramer L, Kristjanson P, Thornton P, Radeny M, Moussa A and Bhatta G (2013). CCAFS Site portfolio: core sites in the CCAFS Regions: East Africa, West Africa and South Asia, Version 3. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org)
- Greatrex, H. e. a. (2015). Scaling up index insurance for smallholder farmers: recent evidence and insights. CCAFS Report no. 14.
- Hatch, D., M. Núñez, F. Vila, K. Stephenson (2012). Agricultural Insurance in the Americas: A Risk-Management Tool. San José, Costa Rica: IICA.
- IPCC (2014), Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland.
- Sadler, M., Millan, A., Swann, S., & Viasileiou, I. (2016). Making climate-finance work in agriculture. Washington: Wold Bank, Global Practice for Food and Agriculture.
- World Bank (2015). The little data book on financial inclusion. Washington: Wold Bank, Global Findex.

## Country-specific references

### *El Salvador:*

- ALIDE (2005), ‘El financiamiento agropecuario en El Salvador’, Lima: Asociación Latinoamericana de Instituciones Financieras para el Desarrollo (ALIDE).

*Peru:*

ALIDE (2016), ‘Las finanzas agrícolas en América Latina - perspectiva y buenas prácticas en la banca de desarrollo’, Lima: Asociación Latinoamericana de Instituciones Financieras para el Desarrollo (ALIDE).

*Ethiopia:*

Gerrit Holtland (2011), ‘The Role of Cooperatives, SACCOs and Traders in Value Chain Development in Borana Zone’, report by CTRT for Trocaire, SCIAF and CAFOD.

*Tanzania:*

CENFRI (2012), ‘Tanzania Access to Insurance Diagnostic’, funded by the Financial Sector Deepening Trust Tanzania (FSDT) and FinMark Trust, with the support of the Tanzania Insurance Regulatory Authority.

*Cambodia*

World Bank (2013), Cambodia, study on access to financial services for small and medium agribusiness enterprises in Cambodia, Technical Working Paper, report no. 82585-kh.

*Philippines*

Municipality of Guinayangan (2017), The official website of the Municipality of Guinayangan, Quezon, [www.guinayangan.com](http://www.guinayangan.com)

Kocourek, P. & G. Poston (2015), ‘Provincial’ banking in the Philippines: Strategic Priorities and Opportunities, Research Note, Singapore: Bridge Advisory.

F.L. Decena (2016), Agricultural insurance in The Philippines, Los Baños/La Laguna (The Philippines): SERD-PCAARD.

### **Websites about financial inclusion**

Alliance for Financial Inclusion: [www.afi-global.org](http://www.afi-global.org)

Centre for Financial Inclusion: [www.centerforfinancialinclusion.org](http://www.centerforfinancialinclusion.org)

Centre for Financial Regulation and Inclusion: <http://cenfri.org>

CGAP: [www.cgap.org](http://www.cgap.org)

Finclusion Lab: <http://finclusionlab.org>

Global Findex: [www.worldbank.org/en/programs/globalfindex](http://www.worldbank.org/en/programs/globalfindex)

*MIMOSA:*

Mix Market: [www.mixmarket.org](http://www.mixmarket.org)

Mobile money tracker, GSMA: [www.gsma.com/mobilefordevelopment/m4d-tracker/mobile-money-deployment-tracker](http://www.gsma.com/mobilefordevelopment/m4d-tracker/mobile-money-deployment-tracker)

The Savix: <http://thesavix.org>

## **Maps sources used**

- Environmental Systems Research Institute (ESRI), (2016). ArcMap 10.5.  
URL: <https://www.esri.com/en-us/home>
- Food and Agriculture Organization of the United Nations. FAO GEONETWORK. Global Administrative Unit Layers (GAUL) (GeoLayer). (Latest update: 04 Jun 2015) Accessed (24 Ene 2018). URI: <http://www.fao.org/data/en/>
- Geonames. The GeoNames geographical database. URI: [www.geonames.org](http://www.geonames.org)
- Global Administrative Areas (2014). GADM database of Global Administrative Areas, version 2.0. URL: <https://gadm.org/>
- Instituto Nicaraguense de Estudios Territoriales (INETE). (Nd)

# Glossary

Climate finance	Flows of capital, from both public and private sources, that support and finance climate-smart investments in the agriculture sector and aim to achieve climate change adaptation and mitigation objectives.
Climate-smart agriculture	Agriculture that 1) sustainably increases agricultural productivity and incomes, 2) adapts and builds resilience to climate change, and 3) reduces and/or removes GHG emissions where possible.
Commercial finance	Financial services offered with a deliberate commercial objective, that is, in essence profit-driven.
Development bank	Development banks are government-owned financial institutions that provide financing for economic development. They may be constituted at multilateral, bilateral, national or provincial levels.
Development finance	Financial services provided by development banks, international finance institutions (IFIs) and development finance institutions (DFIs).
Development finance institution (DFI)	Multilateral or bilateral financial institution that provides financial services to the private sector for investments that promote development
Disaster-response funding	Funding, from both public and private sources, for a wide variety of programmes that provide grants and other support to assist state and local governments, and private entities (e.g., smallholders) during disaster recovery.
Financial institution	Formally registered company or organisation that provides financial services, under a specific licence for financial services.
Financial product	<i>Specific</i> financial service offer, tailored to a specific purpose and target market, and with a specific bundle of attributes (features, functions, benefits, costs and uses) ( <i>adapted from CGAP 2009</i> )
Financial services	<i>General term</i> for all kinds of services around depositing and lending out of money, management of capital funds and money transactions, and buying and selling of financial risks (f.i. through insurance or credit guarantees).
Financial service provider (FSP)	Person, organisation or company that offers financial services. FSPs can be formal or informal.
Formal finance	Financial services offered by financial institutions.
Informal finance	Financial services offered by other entities than financial institutions.
International financial institutions (IFIs)	Financial institutions that conduct development-oriented finance on a bilateral or multilateral basis.
Junior debt	Debt (loan) that is lower in <u>repayment</u> priority than other debts in the event of the issuer's <u>default</u> .
Re-insurance	Insurance purchased by an insurance company, as a means of risk management.
Semi-formal finance	Financial services offered by financial institutions who do not have a banking licence.
Social finance	Financial services driven by a combination of economic return and social objectives.



RESEARCH PROGRAM ON  
**Climate Change,  
Agriculture and  
Food Security**



The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic initiative of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT). CCAFS is the world's most comprehensive global research program to examine and address the critical interactions between climate change, agriculture and food security.

**For more information, visit [www.ccafs.cgiar.org](http://www.ccafs.cgiar.org)**

Titles in this Working Paper series aim to disseminate interim climate change, agriculture and food security research and practices and stimulate feedback from the scientific community.

CCAFS is led by:



Strategic partner:



Research supported by:



Fund



Ministry of Foreign Affairs of the  
Netherlands

NEW ZEALAND MINISTRY OF  
FOREIGN AFFAIRS & TRADE  
MANU AORERE

