

Agricultural finance potential in Ethiopia

Constraints and opportunities for enhancing the system



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I Executive Summary

Financial services are a critical enabler for sustainable economic growth and therefore poverty reduction and food security in Ethiopia in general and in the agricultural sector in particular. Credit is used for investments to increase the productivity of agricultural operations or to diversify the economic activities of rural households. Savings products ensure safe and productive "storage" of money and ensure excess capital can be channeled to its most productive use. Payment products facilitate the ease of exchange of agricultural goods and insurance products help to spread risks of agricultural players in an efficient way. Thus, in short, financial services are essential for protecting and improving the livelihoods of rural populations.

However, the financial service offerings to agricultural sector players in Ethiopia face gaps in terms of access to financial services, product quality, and quantity. In terms of access, only few financial institutions serve rural areas in Ethiopia, leading to low levels of financial inclusion. In terms of product quality, gaps exist for all major product categories, including credit, savings, insurance, and payments, and all major types of agricultural players, including producers, traders, and manufacturers of all sizes. Key issues include lack of input credit and weather insurance for smallholders, lack of inventory financing for traders, lack of export financing for exporters, as well as lack of long-term credit, cash-flow-based lending, attractive deposit products, and reliable payment products for all players. In terms of product quantity, the overall Ethiopian economy is significantly credit constrained, with credit supply roughly USD 3 billion short of credit demand. Agriculture is strongly affected by this credit crunch compared with other sectors of the economy.

DIAGNOSTIC: CAUSES OF CONSTRAINTS

The diagnostic identified a set of root causes for these constraints that are grounded in three interdependent elements of the agricultural finance "ecosystem":

- **General characteristics of the financial sector.** Echoing findings on industry structure from other diagnostics on the maize and pulses value chains, the diagnostic showed a diverse but small sector, dominated by public institutions, with many subscale players and low levels of competition. Such an industry structure is not conducive to the development of customer-oriented financial products for any industry. A lack of both bank-specific and general ICT infrastructure to support the buildup of remote banking channels, gaps in agricultural finance regulation, e.g., a lack of a dedicated regulatory framework for financial cooperatives, and a recent high inflationary environment, exacerbate the problem.
- **Agriculture-specific constraints.** In addition to financial sector characteristics, several characteristics of the agricultural sector make it less attractive to serve for financial institutions than other sectors. This includes low levels of profitability due to limited

economies of scale as well as high transactions costs for financial institutions when serving the sector. The latter, in turn, are determined by small transaction sizes, "lumpy" repayments, illiquid and perishable collateral, risky cash flows with high covariance across borrowers, physically dispersed clients living in difficult to reach locations, and diverse sub-businesses with distinct dynamics.

- **Capabilities of financial players.** As a consequence of the prevailing industry structure, financial sector players in Ethiopia have skill gaps in most key banking processes, especially in risk-management. This leads to lending practices based on higher collateral than in benchmark countries, which is a primary reason for limited access to credit.

Key government agencies and development partners are already addressing many of these issues. Ongoing measures include stimulation of competition by providing "easy entry" conditions for domestic private banks, infrastructure buildup including the development of a credit bureau and national payment system, and capability-building programs with a focus on MFIs and credit guarantees for agricultural players, MFIs, and SACCOs to mitigate credit shortages.

RECOMMENDATIONS: FURTHER POTENTIAL INTERVENTIONS

The diagnostic suggests a set of nine potential further interventions around four critical themes to further boost the provision of agricultural finance. These themes are **(a)** improving incentives and regulatory environment to increase financial services in the rural sector, **(b)** strengthening rural financial institutions by using them as a channel for government cash flows, **(c)** accelerating the introduction of new product offerings, and **(d)** improving the overall "fitness" of the financial sector.

- **Improving incentives and regulatory environment to increase financial services in the rural sector.** Key initiatives include **(1)** *setting the right incentives for financial institutions to serve the rural sector*. These encompass fiscal incentives (e.g., tax reduction for banks active in rural areas or co-investments with financial players), temporary monopolies for serving the rural sectors, well-designed credit guarantee-schemes with first-loss-absorption schemes or other conditional incremental funding. This should be supported by **(2)** *improving the regulatory environment for rural financial institutions*, e.g., by putting in place a dedicated framework for the regulation of SACCOs under the oversight of the National Bank of Ethiopia (NBE).
- **Strengthening rural financial institutions by using them as a channel for government cash flows.** Key initiatives include **(3)** *providing input credit (primarily for fertilizer) through SACCOs or MFIs*. In combination with skill-building programs for these institutions and using well-designed credit guarantee schemes, this could decrease the risk of non-performing loans (NPLs) in the input credit business, increase the supply and uptake of fertilizer credit, and strengthen rural financial institutions by providing them with new

profitable market opportunities. **(4) Increasing financial inclusion and further strengthening rural financial institutions by using them as a channel for other non-credit government payments.** One specific way to do so that has been developed in more detail in collaboration with the Food Security Coordination Directorate (FSCD) of the Ministry of Agriculture and Rural Development (MoARD), the Ministry of Finance and Economic Development (MoFED), and development partners supporting the Productive Safety Net Program (PSNP) addresses the PSNP payments. The PSNP offers a large existing payments base, which could be leveraged by using financial service providers to add a financial service component to PSNP payments. The role of the financial institution would be sequentially expanded from merely attending distribution and offering paper-based financial services to distributing payments electronically and offering electronic financial services.

- **Accelerating the introduction of new product offerings.** Key initiatives include **(5) Putting in place the right conditions to increase the offering of insurance products, starting with index-based weather insurance.** In several parts of Ethiopia, index-based weather insurance has already been successfully piloted. In order to scale up these efforts, governments and donors need to upgrade the meteorological technical infrastructure as well as the capabilities of meteorological personnel, in order to collect the required weather data quickly and reliably. Additionally, a regulatory framework for micro-insurance should be put in place, the welfare-enhancing effect of government-subsidized insurance premiums needs to be assessed, and cooperatives should be trained to act as potential distribution agents for insurances schemes. **(6) Scaling up the current warehouse-receipt system so all market participants have best access to the system.** **(7) Fostering the buildup of IT infrastructure and mobile banking technologies to increase the level of financial inclusion.**
- **Continuing to improve the overall "fitness" of the financial sector.** Key initiatives include **(8) Putting in place a coordinated capability-building program for financial institutions and customers.** This should include leveraging existing educational institutions such as the extension system to increase capabilities specifically for rural financial institutions and customers. **(9) Increasing "system readiness" for possible further liberalization of the financial sector.** Over time, most countries consider liberalizing their banking sector from domestic partners to also include international players. While this option might be some time away in Ethiopia, a concerted effort to begin strengthening the systemic readiness of the financial sector to compete with regional and international players is a process that takes some time and should be adopted in a systematic manner.

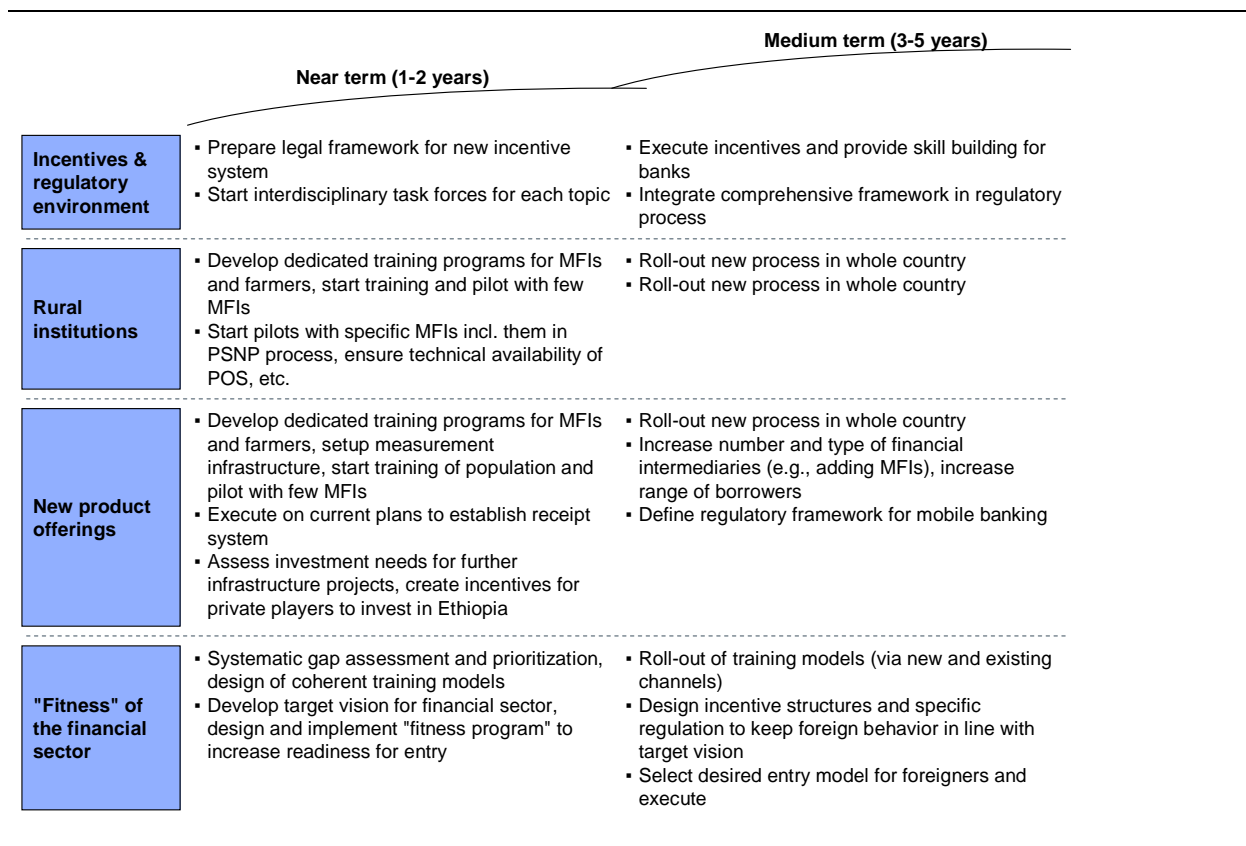
THE WAY FORWARD

- With a clear, fact-based vision for the aspiration, a credible plan of action, and the support of an effective performance management process, Ethiopia will be in a strong position to mobilize the expertise and resources needed to overcome these constraints. Ethiopia can convert this potential into critical improvements in food security and livelihood for the

country. The recommendations of this report offer a first view on how Ethiopia can chart a practical path of initiatives to achieve these goals.

- The recommendations outlined in this report and in the other sub-sector diagnostic reports are not an explicit roadmap of the activities the Bill & Melinda Gates Foundation is best positioned to solely resource; they reflect a set of findings to support MoARD and all donors in the planning and implementing strategies to accelerate growth and food security in the context of Ethiopia’s nationally stated objective to achieve middle-income status by 2025.
- Implementing the recommendations outlined in this report will require human and financial resources. They will also require a level of sequencing and coordination that has in the past been challenging to implement at a national and regional level. To achieve these objectives, the GOE will need to work closely with all its partners (donors and development community), public and private financial institutions, non-governmental organizations (NGOs), cooperatives and unions, as well as public and international research organizations.
- This report provides a preliminary view on the sequencing of the various activities to strengthen agricultural finance in Ethiopia. The proposed order of sequencing is summarized in Figure 1 below.

Figure 1: Overview of time horizons for implementation



II Acknowledgments

Since the agricultural finance diagnostic was initiated in November 2009 at the request of H.E. Prime Minister Meles Zenawi, over one hundred collaborators have generously participated in the process, from smallholder farmers and rural Development Agents to research institutes and the Ministry of Agriculture and Rural Development.

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Beyond the local, regional, and federal governments, a broad number of Ethiopian institutes, research organizations, NGOs, private sector partners, and others engaged with teams of researchers in developing the content and recommendations from this work. These include: Addis Ababa University, Bahir Dar University, Ethiopian Commodities Exchange, Ethiopian Institute for Agricultural Research, Haramaya University, and Jimma University.

Many donors and global experts were also engaged directly in the process. The CGIAR representations in Addis Ababa provided generous use of facilities for consultant teams and expert leadership in the diagnostic areas, with particular thanks to the International Food Policy Research Institute, the International Water Management Institute, and the International Livestock Research Institute. We would also like to recognize the many institutions and donor agencies who contributed: the Alliance for a Green Revolution in Africa, ACIDI-VOCA, African Development Bank, CIMMYT, the Royal Dutch Embassy, the Food and Agriculture Organization, GTZ, IPMS, Iowa State University, Michigan State University, Natural Resources Institute, Oxfam, Oxford University, PanVac, Sasakawa Africa Association, SNV, JICA, A&M, Tufts University, UN OCHA, University of Minnesota, USAID, Wageningen University, Washington University, World Bank, and the World Food Program.

III Acronyms

ADB	African Development Bank
AEMFI	Association of Ethiopian Microfinance Institutions
BMGF	Bill & Melinda Gates Foundation
CBB	Construction and Business Bank
CBE	Commercial Bank of Ethiopia
CRM	Customer relationship management
DBE	Development Bank of Ethiopia
DFID	Department for International Development (UK)
ECX	Ethiopian Commodity Exchange
EIC	Ethiopian Insurance Corporation
ETB	Ethiopian Birr
FCA	Federal Cooperatives Agency
FCSD	Food Security Coordination Directorate
GOE	Government of Ethiopia
HABP	Household Asset Building Program
ICT	Information and communication technology
IMF	International Monetary Fund
MFI	Microfinance institution
MIS	Management information system
MoARD	Ministry of Agriculture and Rural Development (Ethiopia)
MoFED	Ministry of Finance and Economic Development (Ethiopia)
NBE	National Bank of Ethiopia
NGO	Non-governmental organization
NPL	Non-performing loan
PSNP	Productive Safety Net Program
SACCOs	Savings and credit cooperatives
SSA	Sub-Saharan Africa
VPN	Virtual private networks
WEF	World Economic Forum

IV Background

Agriculture is the core driver for Ethiopia's growth and long-term food security. The stakes are high: 15 to 17 percent of the Government of Ethiopia's (GOE) expenditures are committed to the sectorⁱ, agriculture directly supports 85 percent of the population's livelihoodsⁱⁱ, 43 percent of gross domestic product (GDP)ⁱⁱⁱ, and over 80 percent of export value^{iv}.

Ethiopia's agricultural sector has witnessed consistent growth since 2003: maize production has expanded at 6 percent *per annum*, and the aggregate export value across all commodities has grown at 9 percent *per annum*^v, underpinning an 8 percent annual growth rate in GDP. Public investment has expanded access to productive inputs, such as hybrid maize seed and fertilizer.¹ Concerted government spending in extension has also established over 8,500 Farmer Training Centers (FTCs) and trained 63,000 Development Agents (DAs) from 2002 – 2008.² However, the sector continues to face a set of constraints that restrict further and accelerated growth. Markets are underdeveloped, federal and regional level public and private sector partners lack capacities to implement, some gender imbalances continue to be unaddressed, safety nets account for a large proportion of agricultural spending, irrigation potential remains underdeveloped, shortages of improved inputs hinder growth, and key areas of the enabling environment require improvement. Most importantly five to seven million Ethiopians remain chronically food insecure^{vi}.

At the request of the Government of Ethiopia (GOE), in 2009, the Bill & Melinda Gates Foundation (BMGF) agreed to undertake diagnostic reviews of Ethiopia's seed system, irrigation, extension, agricultural finance, soil fertility/fertilizer and markets value-chains for maize, livestock, and pulses³. Jointly, these sub-sector diagnostics inform a separate holistic report with systems-level recommendations across agriculture. This systems-level work captures common themes from the more siloed diagnostics and identifies priority areas to drive food security and growth. The integrated, summary report also provides an implementation strategy for a program to accelerate agricultural development in Ethiopia.

The development of these reports has been led by senior fellows with the International Food Policy Research Institute (IFPRI), the Ethiopian Institute for Agricultural Research (EIAR), the International Livestock Research Institute (ILRI), the International Water Management Institute (IWMI), and the Association of Ethiopian Microfinance Institutions (AEMFI). Throughout their work, these sector experts worked closely with technical experts at the Ministry of Agriculture

¹ Refer to the seeds and soil fertility diagnostic reports for more details

² Refer to the extension diagnostic report for more details

³ Final reports and recommendations from the individual sub-sector diagnostics are completed and available for review. Contingent on the approval of GOE, the Foundation anticipates working with MoARD and IFPRI to facilitate the publication of the reports.

and Rural Development (MoARD) as well as other local stakeholders and local and international content experts.

The findings of the sub-sector diagnostics and the system-wide report are a complement to national GOE strategies, namely PASDEP II, along with corollary projects financed by GOE and its development partners. The purpose of the work is to support GOE in accelerating the achievement of PASDEP II's goals for sustainable growth, food security, and a pathway to middle-income status by 2025.

V Methodology

In close consultation with the Ministry of Agriculture and Rural Development (MoARD), a team of local and global experts, led by International Food Policy Research Institute (IFPRI), undertook the agricultural finance diagnostic in Ethiopia from April 2010 to June 2010. Over 100 stakeholders, including many small-scale farmers, were consulted as part of the process at the *kebele*, *woreda*, regional, and federal level. An independent Ethiopian expert panel, an international content group, development partners, local institutions, NGOs, and other actors also provided input into this work. These discussions culminated in a wide ranging stakeholder convening held in June 2010, where the team's preliminary finding and recommendations were presented. This final report reflects the input of all local partners and stakeholders currently operating in the agricultural finance sector in Ethiopia.

This sectoral analysis, similar to the diagnostic work in other sub-sectors of Ethiopia's agricultural system facilitated by the BMGF at the request of the Prime Minister, consisted of a rigorous multistep process, described below:

- **Extensive review of the relevant literature.** The agricultural finance sector in Ethiopia has been the subject of substantial investigation. The team conducted an exhaustive review of over 40 reports, which provided a baseline understanding and starting point for the team's work. A listing of the various reports consulted is contained in Appendix 1. Further, a rich analysis of international cases provided a context to understand the enabling factors in other economies for successful interventions.
- **In-depth key informant interviews.** Over 100 stakeholders, including MoARD, BoARD, *woreda*- and *kebele*-level government staff, development partners, research institutes, traders, cooperatives, unions, farmers, investors, and others participated in interviews. The interviews brought context to and surfaced constraints identified in the literature review; they also provided a soundboard to validate findings and recommendations.
- **Collection of primary qualitative and quantitative data** – primary data were collected through participatory rapid assessment methods to fill key gaps in the available data set. This involved interviewing farmers' groups, community leaders, and local traders on various aspects of their operations. The fact-driven analysis allowed teams of consultants to make sectoral projections and modeling around constraints and opportunities in the agricultural finance sector. These analyses, in conjunction with informant interviews and literature reviews, provided the basis for a broad set of systemic recommendations designed to strengthen the current Ethiopian agricultural finance sector.
- **Multi-stakeholder convenings.** Convenings were held toward the end of the study to present, test and further refine the team's initial findings and recommendations. Convenings were attended by regional and federal government officials, private sector representatives, as well as national and international research organizations.

- **Synthesis and validation with expert panels.** As a final review of the recommendations and findings, three separate expert panels were consulted during the review process: an independent Ethiopian content expert panel; an international content expert group; and a high-level advisory group for cross-sectoral and broad development issues. Input was provided by these panels in an iterative process, consisting of meetings and direct comments into documents, held over a multi-month period. During this period, the team also continued to receive feedback from MoARD leadership.

The methods sought to combine academic rigor with a participatory, forward-looking, and actionable process with the stakeholders in Ethiopia who, at the end of the day, are the protagonists who will be affected by and take leadership in the implementation of the findings and recommendations of this work. It also sought to interact directly with the farmers, particularly women, who are not only the primary beneficiaries of the work, but the final link in the chain in implementing recommended interventions. The incorporation of a farmer perspective ensures that recommendations are demand driven, catering to the needs of the clients of this work.

In close consultation with the Ministry of Agriculture and Rural Development (MoARD), a team of local and global experts, led by the Association of Ethiopian Microfinance Institutions (AEMFI), undertook the agricultural finance diagnostic in Ethiopia from April 2010 to June 2010. Over 40 stakeholders, including users (farmers, traders, and processors) and providers (MFIs, commercial banks, cooperatives, and insurers) of agricultural finance, as well as government institutions such as regulators and policymakers, were consulted as part of the process. An independent Ethiopian expert panel, an international content group, development partners, local institutions, NGOs, and other actors also provided input into this work. These discussions culminated in a wide ranging stakeholder convening held in June 2010, where the team's preliminary findings and recommendations were presented and discussed. This final report reflects the input from all of these discussions.

The analysis, similar to the diagnostic work in other sub-sectors of Ethiopia's agricultural system facilitated by the BMGF, consisted of a rigorous multistep process described below:

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- **In-depth key informant interviews.** Over 40 stakeholders, including users and providers of agricultural finance as well as policymakers and regulators, participated in the interviews. The interviews brought context to and surfaced constraints identified in the literature review; they also provided a soundboard to validate findings and recommendations.

- **Multi-stakeholder meeting.** A convening was held near the end of the study to present, test and further refine the team’s initial findings and recommendations. This was attended by regional and federal government officials, private sector representatives, and national and international research organizations.
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1. Introduction

The objective of the agricultural finance diagnostic was to identify potential financial service constraints in the Ethiopian agricultural sector and to develop a set of recommendations and interventions that could help overcome these constraints. More generally, the target of the diagnostic was to help establish a well-functioning and safe agricultural finance system that contributes to the growth of the agricultural sector by satisfying the financial needs of farmers, traders, and processors in all regions of Ethiopia, by offering quality financial products and services. From an institutional perspective, the diagnostic focuses on financial institutions (commercial banks, microfinance institutions (MFIs), savings and credit cooperatives (SACCOs) and partly insurers) but also includes a trade-finance perspective where possible. Product-wise, it focuses on credit and deposits but again includes a perspective on payments and insurance where possible.

A sound financial sector is critical for sustainable economic growth, and therefore poverty reduction and food security. It is also an important provider of employment and source of tax revenue for the government. A lot of recent empirical literature shows that financial sector development "plays an independent and causal role in promoting economic growth" and is pro-poor in the sense that it is "associated with more rapid growth in the incomes of the poor, helping them catch up with the rest of the economy as it grows".^{vii}

Moreover, the financial sector is also an enabler for agriculture: credit can be used for investments that increase the productivity of agricultural operations or for diversification of economic activities of rural households that in the long run generate employment, increase income, and ensure food security. Savings products ensure a safe and productive "storage" of money and ensure excess capital can be channeled to its most productive use. Payment products facilitate the ease of exchange of agricultural goods and insurance products help to spread risks of agricultural players in an efficient way. Thus credit, savings, insurance, and payment products are essential for protecting and improving the livelihoods of the rural population.^{viii}

Consequently, improving financial access and financial support to the agricultural sector has been one of the most prominent instruments in the development programs and strategies followed by the GOE and its development partners over the past 40 years. A large amount of financial resources have been injected in the form of credit and donations through development banks, commercial banks, NGOs, and agricultural development programs. The goals of these interventions have been to support agricultural production, increase productivity, and create employment in rural areas.

This approach, which in the beginning relied mainly on subsidized loans to the agricultural sector by governments and donors, led to poor loan repayment rates, dysfunctional financial institutions, and a generally underdeveloped financial delivery system to agricultural players.

Similar to the development in other countries, this "traditional" approach of providing subsidized loans by governments and donors was later improved by the GOE with a new financial-systems-based approach. This was founded on creating an enabling legal and regulatory environment to establish sustainable and viable financial institutions, including MFIs in a market-driven environment.^{ix} As a result, financial provision to farmers and previously marginalized populations in Ethiopia was improved and deposit-taking MFIs and financial cooperatives have been developed, with these institutions now focusing on providing financial services to smallholder farmers and other agricultural players.

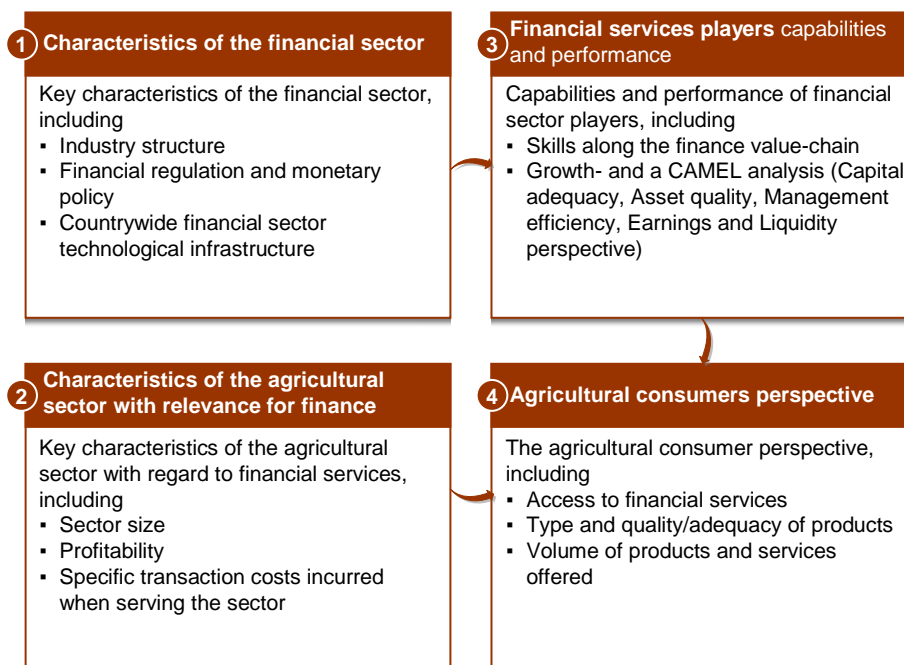
In spite of these recent successes, there is empirical evidence that agricultural finance continues to limit the growth of the Ethiopian agricultural sector due to limited access to financial institutions, an insufficient quality of financial products, and a lack of credit volumes, particularly in the rural areas.^x Given the renewed emphasis on increasing agricultural production, this has also put agricultural development and rural finance back in the spotlight of the development agenda. This report provides an overview of the status quo of agricultural financial services in Ethiopia and develops a set of recommendations to improve the overall financial situation of agricultural players in the country.

1.2 FRAMEWORK OF ANALYSIS

To understand the current status and constraints of agricultural finance in Ethiopia, a framework has been used that builds on the belief that the provision of financial services to agricultural players (i.e., the consumer perspective of agricultural finance) has to be analyzed in the context of the overall agricultural finance "ecosystem." This ecosystem in turn consists of four key elements: (1) the characteristics of the financial sector, (2) the characteristics of the agricultural sector with relevance to financial services, (3) the capabilities and performance of financial sector players, and (4) the agricultural consumer perspective.

The **characteristics of the financial sector**, such as industry structure, regulation, and countrywide technological infrastructure, determine how banks serve other sectors, including agriculture. They also determine the **capabilities and performance of financial sector players**, e.g., how well they perform risk management or how profitable they are. The **characteristics of the agricultural sector with regard to finance**, e.g., its size and risk-return profile, further specify how banks serve agricultural clients, i.e., what level of access or services they offer. Financial institutions' capabilities and the specifics of the agricultural sector together determine how and what services are provided to agricultural customers, i.e., the **agricultural customer perspective**. Figure 2 summarizes this framework and illustrates the relationship between these four elements.

Figure 2: Framework of analysis



SOURCE: Authors

Chapters 2 to 5 describe the key findings for all four elements of the framework. Based on these, Chapter 6 develops a set of recommendations and interventions to address the identified root causes of insufficient provision of financial services to Ethiopian agricultural players.

2. Key Characteristics of the Financial Sector

2.1 INDUSTRY STRUCTURE

The Ethiopian financial sector consists of a large number of formal, semiformal, and informal financial service providers. Formal providers include **commercial banks, MFIs, and insurance companies** while semiformal providers are **financial cooperatives (SACCOs)**. Informal providers consist of **social groups that provide savings and lending functions** (e.g., "Iddir" that focus on savings and lending for social ceremonies such as burials, or "Iqqub" that provide savings and lending services within homogenous social groups), **private money lenders, friends and relatives**, as well as **trade partners**.

The **commercial banking sector** consists of one state-owned development bank (Development Bank of Ethiopia (DBE)), two state-owned commercial banks (Commercial Bank of Ethiopia (CBE), Construction and Business Bank (CBB)), and 12 private commercial banks (with five additional banks currently under formation). Commercial banks provide the vast majority of credit in Ethiopia, which is more than 60 percent of the total national loan portfolio.^{xi} The number of private banks in Ethiopia has consistently grown since they were allowed to enter the banking market in 1994. From 1998 to 2006, the bank assets of the private sector grew from ETB 1,350 million to ETB 16,400 million.^{xii} As of June 2009, private banks had 363 branches and a total paid-up capital of ETB 4 billion compared with public banks with 273 branches and roughly ETB 7 billion capital.^{xiii}

Although the development of deposit-taking **MFIs** started only in 1996, the industry has shown remarkable growth. Since 1996, NBE has registered 30 MFIs to deliver financial services to the poor. As of 2008, these MFIs had an active loan portfolio of about ETB 4.5 billion delivered to 2.3 million active borrowers and 3 million total active clients.^{xiv} They also mobilized savings of about ETB 1.9 billion (USD 144 million). The average size of loans in 2006 was about USD 170, which indicates that MFIs target the active poor and also do a significant amount of their business (54 percent) with women. Despite their strong growth, MFIs provide less than seven percent of the total national loan portfolio, again with government-owned MFIs playing the major role.^{xv}

The **insurance industry** in Ethiopia is still very small. In 2007, about 0.1 percent of Ethiopia's population had access to insurance services, and insurance premiums (both for life and general insurance) accounted for about 0.2% of GDP, which is very low compared with other African countries.^{xvi} The data indicates that existing insurance products are skewed toward corporate clients who insure their assets (especially cars), businesses, and staff members. Agricultural players have little if any access to insurance products, and especially insurance against weather

risk – the key risk affecting farmers – which is only available as a pilot project in a few selected *woredas*.^{xvii} With an annual market growth rate of 22 percent, the insurance sector has mobilized a gross premium income amounting to ETB 1.19 billion from the general insurance business alone. According to NBE, Ethiopia has a mere ten insurance companies with a total of 175 branches (a branch-to-people ratio of 1:440,000), of which 52 percent are located in Addis Ababa. In 2007, six of ten insurance companies had composite insurance licenses, enabling them to write life and general insurance. Two new companies are in the process of being licensed, of which one is reported to be a life-insurance-only company. The largest player in the system is the government-owned Ethiopian Insurance Corporation (EIC), which accounts for 24 percent of the national branch network, 34 percent of the capital share, and 32 percent of the gross premium income in Ethiopia.^{xviii}

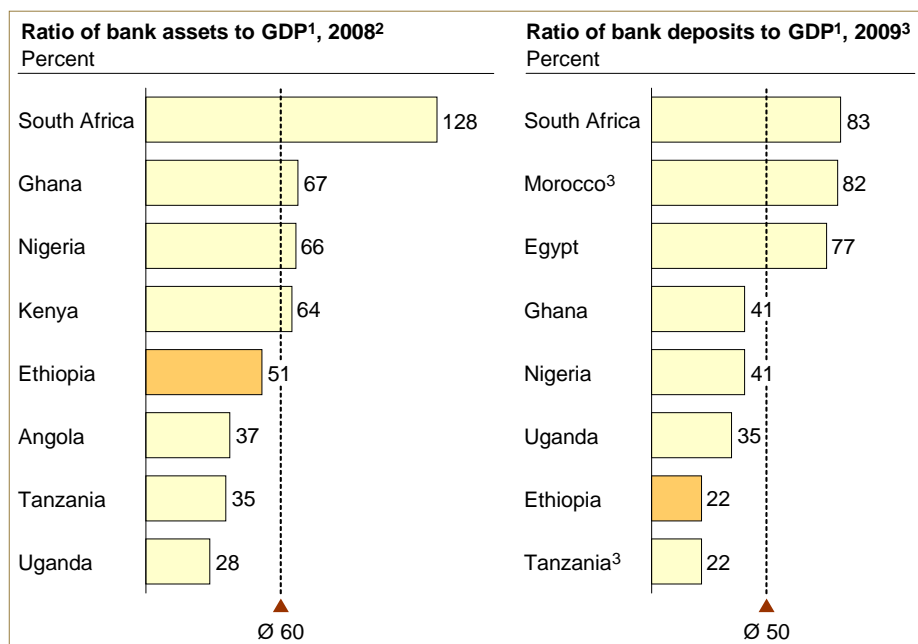
Cooperatives, both multipurpose and financial, are key grassroots-level organizations that are critical instruments in implementing the objectives of the various development programs and strategies such as the rural development strategy, poverty reduction programs, and food security programs. The foundation of cooperatives has been strongly pushed by the GOE and, by 2008, there were more than 26,000 primary cooperatives active in Ethiopia. While many different types of cooperatives exist, only the roughly 5,900 SACCOs or rural SACCOs focus on the provision of financial services.^{xix} While numerous, SACCOs provide an estimated share of only 0.1 percent of the total credit in the economy. **Informal providers of financial services**, which are even more numerous in size, are in many rural areas the only available source of financial services. Besides so-called loan sharks that require very high interest rates, the informal sector also includes friends and families, which represents almost 10 percent of all lending in Ethiopia. Overall, it is estimated that over 20 percent of total credit is provided by the informal sector.⁴

Looking at the holistic financial industry structure in Ethiopia, three elements stand out: (1) the overall **small sector size**, (2) a **large number of players of subcritical size**, and (3) the **domination of the overall system by the GOE and high market concentration**. These phenomena are discussed in more detail below.

The small overall sector size relative to benchmark countries becomes apparent when comparing sector assets with GDP relative to benchmark countries. Figure 3 also shows low relative ratios of deposits relative to GDP, indicating Ethiopia's laggard position with regard to deposit mobilization.^{xx}

⁴ Author's estimate

Figure 3: Asset and deposit ratios in Ethiopia and benchmark countries



¹ Including MFIs, SACCOs and Insurers

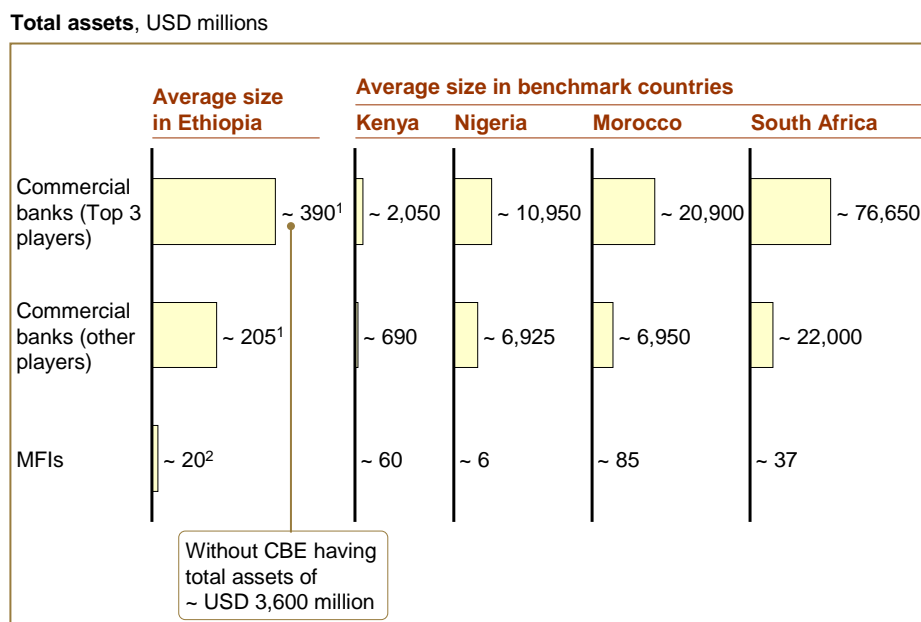
² Angola is for 2007 and Ethiopia for 2006

³ South Africa, Morocco and Tanzania is for 2008

SOURCE: IFS; NBE

Despite the large variety and number of financial institutions in Ethiopia, many of the local financial players are of **subcritical size** (Figure 4). With the exception of the giant CBE, this is true both for commercial banks and – to a lesser extent – MFIs.

Figure 4: Size of banks and MFIs in Ethiopia and benchmark countries



¹ Values for 2006

² Values for 2008

SOURCE:NBE; mixmarket; annual reports

Government institutions, especially CBE, strongly dominate the market, and within government institutions outstanding loans are concentrated in relatively few players. CBE is still the largest bank in the financial sector, representing over 43 percent of outstanding loans. Together with DBE, which represents 12 percent of all outstanding loans, they are responsible for more than half the credit volume in Ethiopia.^{xxi} In 2007, all public banks held 67 percent of all total bank assets. This is exceptionally high compared with Ghana (21 percent), Morocco (27 percent), and Zambia (21 percent).^{xxii} The strong role of government institutions, together with the high concentration, leads to relatively low levels of competition in the sector. This is reflected in very flat average lending rates and low deposit rates, both of which are strongly influenced only by movements of CBE, the largest player in the system.

2.2 REGULATION AND MONETARY POLICY

With regard to **general banking regulation**, e.g., capital adequacy requirements, NPL regulation, and collateral regulation, Ethiopia is mostly in line with regional standards.^{xxiii}

Some **regulatory elements with specific importance for the rural sector**, specifically the MFI regulatory framework, even show particularly strong regulation: until 2009, Proclamation

No. 40/1996 was the major law used to regulate and supervise MFIs. NBE was empowered to license, supervise, and regulate the delivery of financial services to the poor through MFIs. 19 directives of NBE served as the basis for prudential regulation influencing good governance of MFIs and prudent lending, also allowing MFIs to mobilize public savings. With the exception of banks, cooperatives, and MFIs, the proclamation prohibited other institutions from delivering financial services in the country.^{xxiv} Proclamation No. 40/1996 was replaced by a relatively stronger Proclamation No. 626/2009 that institutionalized stronger financial discipline and more prudent lending and transparency of MFIs. NBE is currently involved in revising the directives to fit with the new proclamation and match with the dynamic development of the microfinance sector. NBE has been involving the MFI practitioners before issuing the proclamations and directives through consultative workshops. The regulator also improved foreclosure laws for banks in 1997 to facilitate banking operations, as contract enforcement had been a major issue for banks before.

However, the **regulation for cooperatives** in Ethiopia, another key regulatory element with key importance for rural finance, shows potential for improvement. The regulation is guided by Proclamation 147/98, a law that promotes the foundation of member-owned, needs-based, and sustainable cooperatives. However, it treats financial cooperatives similar to other non-financial cooperatives, even though they – as financial regulation – require specific treatment, e.g., in terms of risk management and governance. If significant resources are to be channeled through financial cooperatives, a legal and regulatory framework is needed to supervise and monitor financial cooperatives' activities. This will help cooperatives carry out fiduciary responsibilities and protect deposits of members, government, and donors (who may inject funds through various programs). Developing such a law contributes to the establishment of stable and efficient financial cooperatives. Although the Federal Cooperative Agency (FCA) could play a role in promoting financial cooperatives, establishing a strong and independent federation of SACCOs would better contribute in implementing self-regulation of financial cooperatives.

The regulator has also been actively promoting **sector liberalization**, e.g., by allowing the operation of privately owned domestic banking institutions in 1994. In 1998, NBE also liberalized lending rates, while only maintaining a floor on deposit rates and putting a limit on foreign exchange. Also, relative to sub-Saharan-African (SSA) benchmark countries, entry barriers to domestic players, especially minimum capital requirements, are low in Ethiopia, which has further contributed to the growth of the private banking sector. However, Ethiopia has one of the strictest regulatory frameworks for banking foreign direct investment in Africa that completely prohibits foreign bank entry.

In recent years inflation was a challenge for growth. Ethiopia has been a low-inflation country in SSA for a long time. In 2008, however, Ethiopia's overall inflation rate reached 45 percent and overall food inflation 60 percent.^{xxv} Bank lending rates increased from 7 percent on loans in 2004/2005 to 9 percent by public and almost 12 percent by private banks as of January

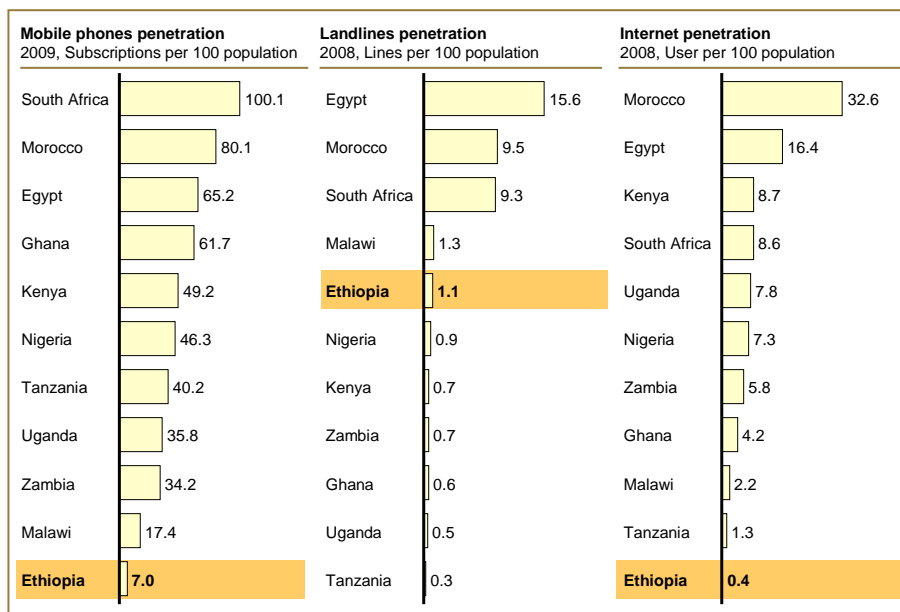
2009. At the same time, the average time deposit rate was 4 percent for public banks and almost 6 percent for private banks, indicating negative real interest rates on deposits. The high inflation created a sizable challenge to economic growth and the welfare of the society, particularly the poor in the rural areas, which is mainly dependent on agriculture. To fight the inflation, the GOE introduced various monetary and fiscal measures to reduce inflation. These include: eliminating fuel subsidies; tightening fiscal policies by reducing government borrowing from the banking system; reducing public enterprise domestic borrowing; curtailing money growth; introducing greater exchange rate flexibility; carefully prioritizing public expenditure; granting temporary exemption from VAT for food and food-related items; and auctioning treasury bills (every two weeks) as a tool to control liquidity.^{xxvi} In addition, NBE issued directives that increased the reserve requirement of banks and introduced total credit limits of banks. The significant reduction of bank credit to the private sector negatively affected economic growth but did reduce inflation, which went down again to relatively "acceptable" levels below 10 percent by the end of 2009 and remained stable during the first half of 2010. The agricultural sector is still suffering, however, as many of the above measures such as lending caps are still in place.

2.3 TECHNOLOGY AND INFRASTRUCTURE

Technology enables finance providers to deliver a wider range of products and tailor them to the individual needs of their customers. Back-office and front-office technologies such as hand-held point-of-sale services, smart cards, and mobile-phone-based banking systems can accelerate the growth and depth of outreach and performance of inclusive finance providers. The use of these technologies can significantly reduce the transaction costs of delivering financial services, especially for rural clients, and improve savings mobilization. It brings banking and rural finance services to new clients and remote districts that were previously beyond the practical reach of traditional finance channels. Also, potentially improved access to payment systems through these technologies allows rural producers and agribusiness operators to participate in modern, efficient community trading systems that offer better prices.

However, prerequisites for using such technologies are a sufficient quality of general IT infrastructure and availability of banking-specific IT infrastructure. Unfortunately, with regard to **general IT infrastructure**, Ethiopia lags far behind benchmark countries particularly with regard to mobile phone and Internet penetration (Figure 5).

Figure 5: Communication device penetration in Ethiopia and benchmark countries



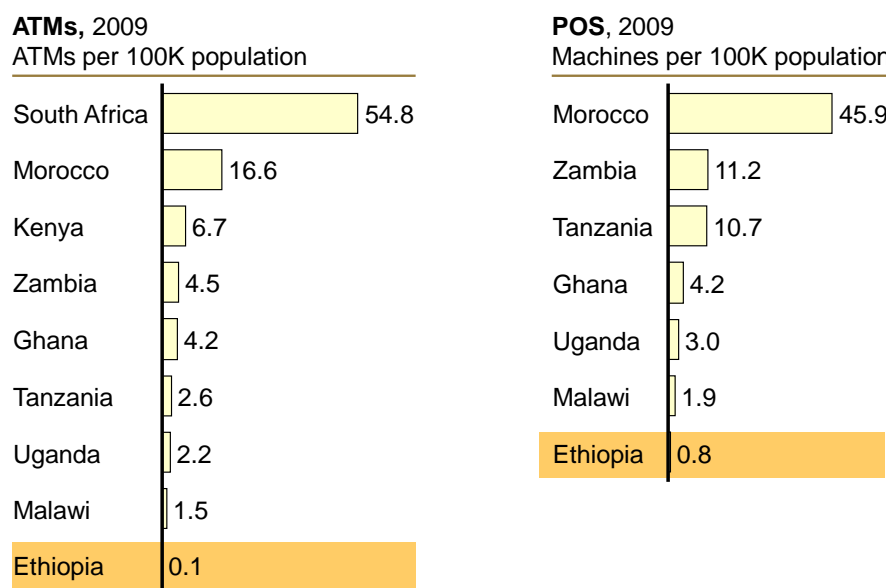
SOURCE: Informa; ETC; WEF; Authors

With regard to **bank-specific IT infrastructure**, Ethiopia also faces several challenges. First, although NBE is currently working on the issue, historically there has been no national payment system with electronic data exchange for clearing and settling interbank payments. The clearing of checks is fully manual and paper based, including the link between the AACO and the Bankmaster system, NBE's large value payment system. Moreover, the NBE Bankmaster system is fully paper based. Participants (commercial banks and government agencies) have to send in payment orders via a letter of instruction. Information on settled incoming and outgoing payments and balances in the account at the end of the day is sent by NBE to the participants the following morning on paper.

Second, there is no functioning national credit bureau. A credit bureau could help track the credit history of borrowers and allow banks to better assess the risk of their customers. Only roughly 0.1 percent of all adults in Ethiopia are covered in a credit registry. While this is a common problem in many SSA countries, with the exception of South Africa (equivalent figures for benchmark countries are 2 percent in Kenya, 3 percent in Angola and 55 percent in South Africa), coverage rates in Ethiopia are especially low. This is probably also driven by the lack of a working national ID system.^{xxvii} Again, there is already an effort under way by NBE to address this issue.

Figure 6 illustrates that the lack of general as well as bank-specific IT hampers the development of **remote banking channels** in Ethiopia, such as ATMs and – even more relevant for the rural sector – point of sales devices (POS).

Figure 6: ATMs and POS in Ethiopia and benchmark countries



SOURCE: CGAP

Also, with the absence of checks and electronic payments (debit, credit card, giros, and wire transfers) in rural Ethiopia, cash is the most used payment instrument. While banks have started to invest in new technologies in terms of their internal IT infrastructure, currently only eight out of 15 have already implemented a core banking system at the head office level and are in the process of connecting the branches to the centralized system. MFIs and SACCOs, meanwhile, generally have only rudimentary – if any – major IT systems in place.

3. Characteristics of the Agricultural Sector with Relevance for Finance

Agriculture is the core driver for Ethiopia's growth and long-term food security. The stakes are high: 15 to 17 percent of the Government of Ethiopia's (GOE) expenditures are committed to the sector^{xxviii}, agriculture directly supports 85 percent of the population's livelihoods^{xxix}, 43 percent of gross domestic product (GDP)^{xxx}, and over 80 percent of export value^{xxxi}. Thirteen million smallholder farmers account for 95 percent of total production, and five to seven million households are chronically food insecure^{xxxii}. Ethiopia's agricultural sector has witnessed consistent growth since 2003: maize production has expanded at 6 percent per year, and the aggregate export value across all commodities has grown at 9 percent^{xxxiii}, underpinning an 8 percent annual growth rate in GDP. Public investment has expanded access to productive inputs, like hybrid maize seed and fertilizer. Concerted government spending in extension has also established nearly 10,000 Farmer Training Centers (FTCs) and trained over 63,000 Development Agents (DAs) from 2002 to 2008. The GOE has made marked progress in agriculture over the past decade. However, the sector continues to face a set of constraints: markets are underdeveloped, federal and regional governments lack capacities to implement, safety nets account for a large proportion of agricultural spending, irrigation is below its potential, shortages of improved inputs hinder growth, and key areas of the enabling environment require improvement.⁵

However, from the point of view of the financial sector, agriculture is a less attractive field of business than other sectors of the economy such as construction, tourism, trade, and other services. One key reason for this is the sector's **risk-return profile**. Field data collected by this study indicates a lack of profitability of many small-scale farming activities due to a lack of economies of scale in land use and the use of outdated farming practices. Moreover, based on sample data, subsistence farming is likely to be a loss-making activity and even commercial farmers face an unfavorable, mostly weather-dependent risk return.

In addition to this, a well-documented group of six other interdependent sector characteristics causes high transaction costs for commercial banks, MFIs, cooperatives, and other financial providers that directly or indirectly serve the sector and therefore further impede the provision of financial services to agricultural players.^{xxxiv} These characteristics are:

- **Small transaction sizes.** Transaction sizes in the agricultural sector are usually small, at least with regard to smallholder farmers. The average size of agricultural loans of an Ethiopian MFI in 2007 was ETB 1,250 (equivalent to less than USD 100).^{xxxv} This increases the share

⁵ Refer to the integrated report summarizing all diagnostics

of the – mostly fixed – costs of loan origination, monitoring, and collection of financial institutions relative to other sectors with higher average transaction sizes.

- **"Lumpy" cash flows.** Typical cash flows in the sector consist of one large cash outflow/loan (e.g., for fertilizer), followed by one large cash inflow/repayment several months later (harvest). Because the ease of monitoring individual customers increases for financial institutions with the frequency of repayments (since each individual repayment provides a monitoring opportunity), agricultural customers are more difficult to monitor compared with businesses with multiple cash inflows and outflows. Apart from complicating monitoring, "lumpy" cash flow patterns also complicate financial intermediation for financial institutions where agriculture is the primary economic activity. In this case, the savings and investment patterns of customers match and savers are likely to withdraw their savings at the time of greatest demand from borrowers (e.g., when inputs need to be purchased).
- **Illiquid and perishable collateral.** Typical collateral in the agricultural sector is agricultural output, farming equipment, land or buildings. Agricultural output is typically perishable, which limits its use as collateral. The limited amount of standardization of agricultural output in Ethiopia and the availability of few "neutral" storage facilities further complicate the use of agricultural output as collateral. While a legal framework for moveable collateral such as farming equipment exists, practical considerations limit this type of collateral to large, standardized machinery that is mostly in use by a relatively limited number of commercial farmers. Since farmers generally cannot own land titles, land is also not acceptable collateral in this business. This also complicates the use of buildings as collateral. A lack of risk management skills among most financial institutions and the strong focus on highly collateralized lending (further details in the next section) further exacerbate the collateral issue in Ethiopia.
- **High covariance across borrowers.** The variance of cash flows compared with alternative businesses is high, making lending relatively more risky. Also, all borrowers are similarly affected by the same macro-risks, especially climate, which increases the individual and portfolio risk of lenders. The fact that about 95 percent of agricultural production in Ethiopia is rain fed^{xxxvi} and the absence of structured risk management products for farmers make the issue even more relevant for Ethiopia.
- **Geographically dispersed clients living in difficult to reach locations.** With on average 81 people per square kilometer, the Ethiopian population is more dispersed than in benchmark countries such as Nigeria (166 people), Uganda (1,621 people), Malawi (158 people), and Ghana (103 people). This is especially problematic in the rural sector, where 83 percent of the population live. Adding to the problem is the fact that only 12 percent of the road network in Ethiopia is paved, and road density remains at only 30 km of road per square kilometer of land, one of the lowest densities in Africa.^{xxxvii} Only about 30 percent of the population in Ethiopia has access to all-weather roads. As mentioned above, telephone and Internet penetration is also very low compared with other African countries, which prohibits

the use of remote banking channels that would allow financial institutions to reach clients more cost effectively than with traditional bricks-and-mortar branches.

- **Diverse sub-businesses with distinct dynamics.** Agriculture consists of many different sub-industries with significantly varying investment and risk patterns. This causes high specialization costs in monitoring within a cash-flow-based lending model, providing incentives to financial institutions to lend based on collateral or limit activities to easy-to-understand, homogenous parts of the business such as input credit.

4. Financial Services Players' Capabilities and Performance

4.1 SKILLS ALONG THE FINANCE VALUE-CHAIN

With regard to capabilities of financial sector players in Ethiopia, interviews and available survey data indicate that there is still room for improvement with regard to most key banking processes for all types of financial institutions in Ethiopia.

While specific issues vary by type of institution, risk management stands out as a key issue. Here, commercial banks lack the skills to properly assess lenders – including MFIs that in turn primarily serve the agricultural sector – with regard to risks. A recent survey by NBE with regard to risk management skills of Ethiopian banks substantiates this issue (see box below).^{xxxviii}

Overview of results from NBE's Risk Management Survey Report, December 2009

Board responsibility - In 87 percent of banks, a significant share of board members didn't have risk management training; in 60 percent of banks, the board of directors is not provided with relevant and up-to-date economic, business, and market data for informed decision making.

Structure and resources - Specific budget allocated to the risk management function in 75 percent of banks is either relatively insignificant (less than 0.5 percent of total budget) or unknown; in 73 percent of banks, only some or none of the staff members were trained in risk management.

Strategy and policy - 74 percent of banks have not yet documented a risk management strategy and program; 60 percent of banks do not define risk limits.

Auditors - 77 percent of external auditors and 60 percent of internal auditors of banks do not independently review the effectiveness of banks' risk management functions.

Risk identification - The risk management function in 93 percent of banks does not capture risks related to procurement and HR; 87 percent of banks do not conduct workshops to identify risks in each activity/product and do not implement stress testing as a risk management tool; 93 percent of banks do not have continuity/disaster recovery/contingency plans in place for other risks such as market or reputational risks.

For commercial banks, these issues generally lead to lending practices that are more heavily based on collateral than in benchmark countries.^{xxxix} While MFIs and SACCOs, as the key "direct" providers of financial services to the rural population, do have risk management processes in place that better address the specific needs of the rural population – especially lending based on social collateral – they face risk management issues on a portfolio level, due to their small size, regional orientation, and exposure to covariate risks, as well as lack of specialized human talent. Partly because of the survey results above, NBE has already started an initiative to upgrade risk management skills, particularly in public banks. However, it should be recognized that, without proper incentives or increased competition, banks are unlikely to also

exercise these new skills, as collateral-based lending would continue to be the more attractive option from a risk-reward perspective.

With regard to other key banking processes, interviews also highlighted other skill gaps that differ by type of institution. In **product development and sales**, commercial banks have the capacity to develop simple products and drive a basic sales/CRM approach for large customers. MFIs on the other hand, especially the smaller ones, seem to have no organized product development and sales process and also lack some customer orientation. It must be mentioned, however, that the larger MFIs have recently strongly improved in this dimension. In terms of **back office and IT**, most commercial banks and also larger MFIs have standardized processes that are IT supported. However, there are still significant gaps to best-practice processes. **HR processes as well as talent and performance management** exist in commercial banks on a very basic level and are emerging in many of the larger MFIs. **Controlling and steering systems** (MISs) are in place in most commercial banks. However, the application shows significant gaps to best-practice benchmarks. Once again, these systems also exist in larger MFIs while smaller MFIs usually do not have professional MISs. **Clear overall governance processes** are in place in commercial banks, while there are issues in MFIs, especially for smaller, less profit-oriented institutions. With regard to SACCOs, field interviews indicated skills that are generally below the levels of small MFIs, mainly driven by the subscale size of these institutions and the lack of a proper regulatory framework that captures their nature as financial service providers. All interviewees stressed that lack of sophistication of financial institutions is mirrored by a lack of sophistication among customers, especially in the rural areas.

4.2 PERFORMANCE OF FINANCIAL INSTITUTIONS

To assess the financial performance of the financial sector in Ethiopia, a standard CAMEL analysis, looking at **capital adequacy**, **asset quality**, **management efficiency**, **earnings**, and **liquidity** was conducted. In sum, while these indicators mostly show "positive" values, they also reflect a financial system that could do more to enhance its ability to perform financial intermediation services:

Capital adequacy - Capital adequacy is measured by the ratio of capital to assets. For Ethiopian financial institutions, these were 18 percent for public banks, 19 percent for private banks, and 44 and 48 percent respectively for MFIs and SACCOs.^{xi} Relative to SSA benchmarks (12 percent), this indicates well-capitalized institutions. This reflects, however, a low asset and especially lending base.^{xlii}

Asset quality - One of the indicators for asset quality is the ratio of NPLs to total loans, which in turn indicates the quality of credit decisions made by bankers. In 2009, Ethiopian NPL ratios were 4 percent for public banks, 3 percent for private banks, 5 percent for MFIs, and 2 percent for SACCOs, compared with an SSA average of close to 7 percent.^{xliii} However, back in 2002,

the overall NPL ratio in Ethiopia was above 60 percent and in 2005 still around 28 percent, primarily due to loan defaults in the public banking systems. While these NPLs have been cleaned up, it is still not clear whether the underlying systematic issues have been addressed. In fact, the lack of proper risk management skills documented above indicates that this might not be the case.

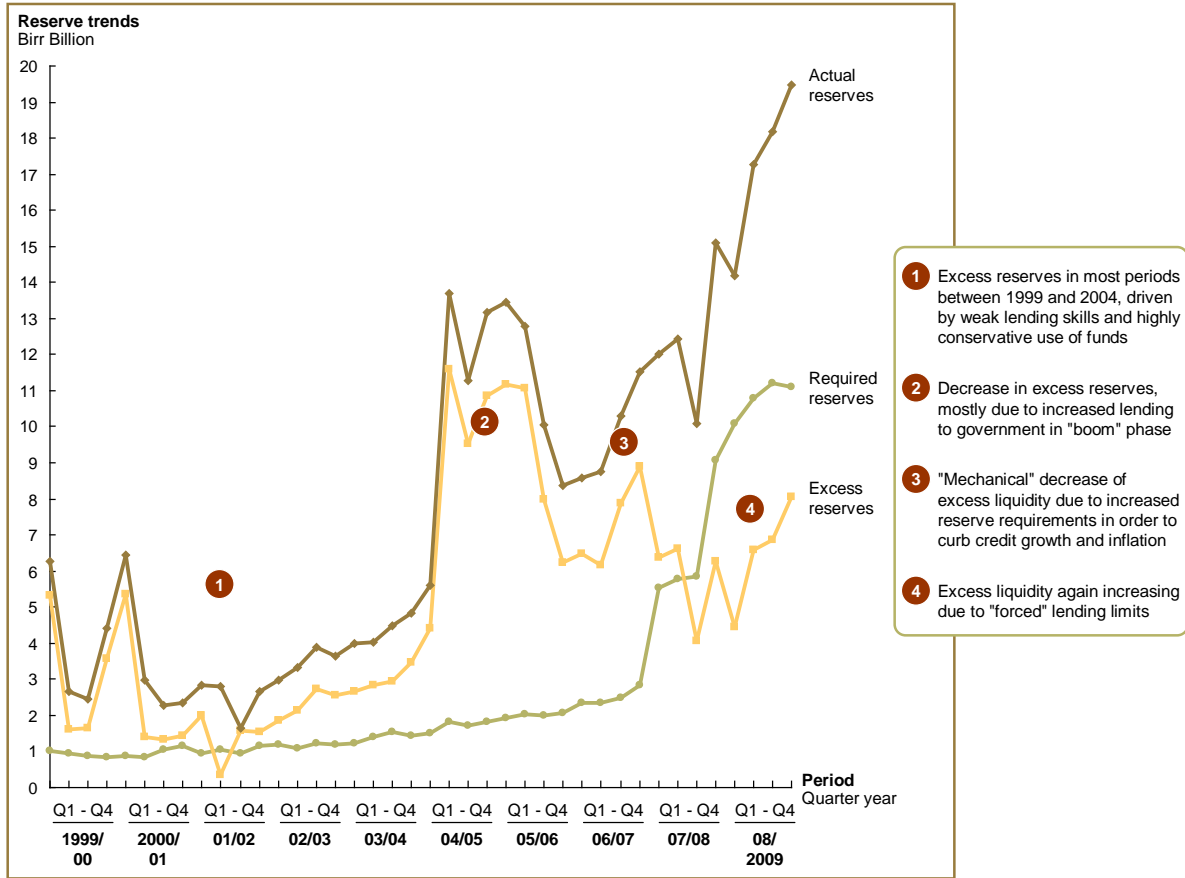
Management efficiency - Management efficiency is usually measured in terms of assets or operating revenues per employee or cost-income ratio. The asset and operating revenue indicators both show significant improvement potential relative to benchmarks.^{xliii} The operating revenue per employee of USD 37,000 for CBE and USD 30,000 for private banks is relatively low compared with benchmark countries (USD 93,000). Cost-income ratios are in turn stronger in Ethiopia compared with benchmark countries and regional benchmarks.⁶

Earnings - The earnings situation in the Ethiopian banking system is very positive for financial institutions with return on equity (ROE) of around 32 and 23 percent respectively for public and private banks relative to an SSA benchmark of 20 percent.^{xliv}

Liquidity - Liquidity measures of Ethiopian banks indicate a high degree of liquidity, especially in public institutions, driven by low lending volumes and conservative use of funds.^{xlv} Excess liquidity is in fact one of the most striking and consistent features of the Ethiopian banking system that has prevailed even through "boom" phases of the economy and "mechanical" increase of reserve requirements in 2007/2008. Excess liquidity, especially in a credit-constrained economy such as Ethiopia, is highly reflective of financial institutions with limited incentives and capability to perform financial intermediation services (Figure 7).

⁶ In 2008, 23 percent for CBE and 32 percent for private banks, compared with 56 percent of benchmarks

Figure 7: Excess liquidity in Ethiopia since 1999



SOURCE: NBE quarterly bulletins; company reports; authors

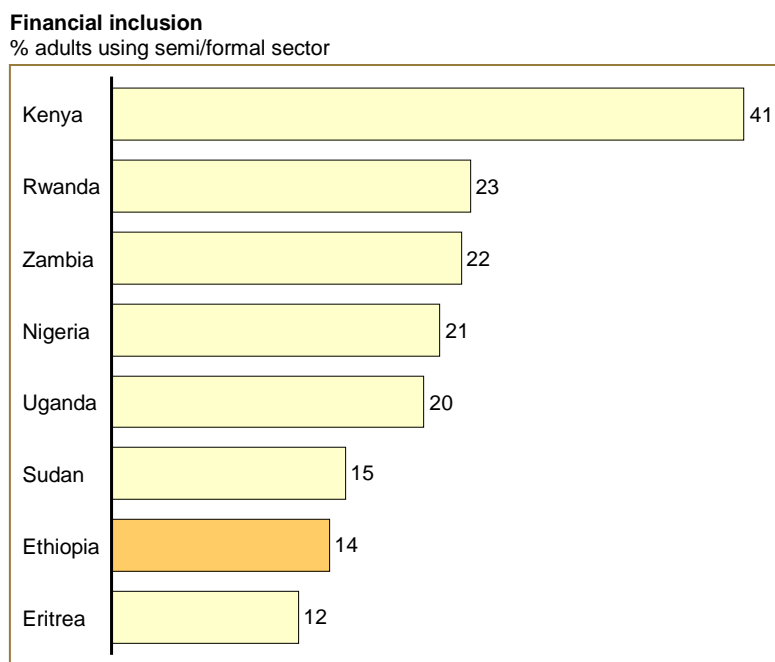
5. Agricultural Consumer Perspective

Ultimately, the characteristics of the financial sector, the specifics of the agricultural sector with regard to finance, and financial institutions' skills and capabilities determine the financial service offering to agricultural customers, i.e., the consumer perspective. In the following sections, the agricultural consumer perspective is analyzed with regard to access to financial services, type, and quality of products offered as well as volume of products (especially credit) offered.

5.1 ACCESS TO FINANCIAL SERVICES

For financial institutions, traditional bank branches are not a cost-effective channel to serve Ethiopia's large but mostly poor and rural population. The described lack of technical infrastructure also inhibits the use of remote channels as an alternative. Consequently, few people have access to formal or semiformal financial services. With 45,000 people per commercial bank or MFI branch, Ethiopia is below comparable low-income countries where the respective ratio is one branch per 35,000 customers.^{xlvi} Moreover, branches are concentrated in urban areas where only a small fraction of the population lives.^{xlvii} Those numbers indicate that millions of poor households in Ethiopia are excluded from formal financial services, particularly in rural areas where over 80 percent of households reside. In fact, a recent Women's World Bank study estimates that only one percent of Ethiopian rural households maintain bank accounts.^{xlviii} These households are then forced to rely on informal channels, generally at significantly worse conditions than those that could be offered by financial intermediaries. Consequently, Ethiopia has one of the lowest financial inclusion ratios compared with its peer countries (Figure 8).

Figure 8: Financial inclusion in Ethiopia and in benchmark countries



SOURCE: Central banks; mixmarket; FinScope

Although MFIs and SACCOs have significantly enhanced financial inclusion among rural households over the past decade, their penetration rate and reach remains limited. An explicit modeling exercise with regard to financial inclusion by region, taking into account the regional distribution of commercial bank branches, MFIs, and SACCOs, indicates levels of financial inclusion that are as low as three percent in selected rural regions (Figure 9).

Figure 9: Outreach and penetration of financial institutions in Ethiopia

Region/city	Pop., m	Density Pop/km	# of woredas	CBE branches #/m	% of pop using MFI ¹	% of pop using SACCO	% of pop. w/ access to formal fin. svcs.
Afar	1.4	14	29	4	0,1	0	8
Amhara	19.1	120	105	39	3,9	0,1	13
Benishangul	0.6	13	21	1	2,4	0,2	9
Gambela	0.2	10	8	1	2,0	1,2	17
Oromiya	26.6	75	180	56	1,7	0,3	9
Somali	4.3	16	47	5	0	0	3
SNNP	14.9	133	77	22	1,7	0,3	8
Tigray	4.3	87	35	17	11,0	0,3	31
Addis Ababa	3.1	5,936	N/A	49	9,5	10,1	78
Dire Dawa	0.4	328	N/A	4	0	0,9	30
Harari	0.2	630	N/A	4	0	0,6	58

¹ Estimates based on MFI financial reporting

SOURCE: HABP; CBE; authors

5.2 TYPE AND QUALITY OF FINANCIAL PRODUCTS OFFERED

Low competition, gaps in regulation in financial institutions, lack of ICT and transport infrastructure, high transaction costs within the sector, and low risk management have led to a financial product offering for rural areas that is limited in terms of both product breadth and depth. This affects all types of players in the agricultural sector. Specific overarching issues include lack of long-term credit facilities, attractive savings products, and efficient payment mechanisms. Due to unattractive savings rates and low access to financial products, farmers keep savings in the form of agricultural outputs (i.e., livestock) rather than fiduciary deposits. Most other issues vary by player within the agricultural value chain and are addressed below.

Input suppliers such as private seed producers and fertilizer and agro-chemical suppliers lack access to capital to acquire or upgrade physical assets such as buildings and machinery. This results in limited private sector presence, limited competition, and reduced ability to procure equipment and supplies from abroad and expand services to farmers and other end users.

One of the key issues for **smallholders** includes lack of **input credit**, especially for fertilizer. This is a relatively recent problem that was caused by channeling input credit through "regular" cooperatives. This led to unsustainably high levels of NPLs as these institutions struggled to adequately assess customer risk and farmers perceived the granted credit as a government subsidy. As a consequence, while cooperatives still have access to fertilizer using government credit guarantees, fertilizer access for farmers is now primarily cash-based. This could turn into a major issue should the quality of harvests decrease. If smallholders do have access to credit, **debt repayment schedules** are often unaligned with agricultural production cycles. Since most loans have payback periods under one year, loans are likely to either require installments before the first harvest or to demand repayments in periods when further input credit is required.

In terms of **insurance**, there is a large unmet need with regard to simple, cheap protection against weather risks. However, other types of insurance, especially life insurance, are also lacking. Due to a lack of formal insurance, many Ethiopian households have turned to risk-mitigating schemes offered by the informal financial market. There are, for example, member-based risk management organizations (called "Iddir") to provide social and financial assistance in case of a death in the member's family. However, research indicates that "although a vast number of households utilize informal insurance mechanisms, they generally do not adequately protect against costly and unpredictable risks, such as the debilitating illness of a family income earner."^{xlix} Finally, smallholder farmers lack **long-term investment credit**, particularly to move to higher-value-added crops and business models.¹

A key issue for **commercial farmers** and **traders** is the lack of **inventory financing**. This in turn prohibits especially traders from providing financing to agricultural producers and leads to a lack of *value-chain financing*. They also lack more **complex insurance products** such as multiple peril indemnity insurance or futures to protect against production, trading, or market price risks. Again, these players lack **long-term investment credit** to expand operations or integrate vertically.

Processors and exporters, particularly in non-priority sectors, report issues with regard to export financing, forex services, and also **complex insurance products**, including production and export insurance in addition to an unmet need for **long-term investment credit**.

5.3 VOLUME OF PRODUCTS OFFERED

As indicated above, the level of lending in Ethiopia, relative to GDP, is below that of benchmark countries. Assuming a lending to GDP ratio of Kenya to be representative to the true unmet demand for credit in the overall economy implies a total credit shortage of about 3 USD billion in the overall system. Meeting this demand would require a gradual and phased increase in lending activity by about 40 percent. Furthermore, it seems that agriculture in Ethiopia is suffering more strongly from this "credit crunch" than other sectors of the economy: While core

agriculture provides about 44 percent of total GDP, the share of total lending of the sector is only 11 percent. The resulting ratio of share of lending to share of GDP (25 percent) is again much lower than in benchmark countries such as Tanzania (33 percent) or Malawi (46 percent).^{li} Consequently, few Ethiopian financial institutions make a significant contribution to agricultural lending. This is e.g., true for large government-owned commercial banks such as CBE, where the relative weight of agriculture in the portfolio is currently shrinking.^{lii} Private commercial banks in turn provide hardly any credit to the sector.^{liii} Finally, MFIs and SACCOS are putting a clear focus on the sector with roughly two-thirds of their overall loan portfolio, they are too small in terms of size to have a significant impact on the agricultural sector.^{liv} A notable exception is DBE. Founded in 1909 as the Societe Nationale d'Ethiopie pour le Development de l'Agriculture et de Commerce, the bank today focuses on medium and long-term loans for investment projects with a focus on agriculture, agro-processing and manufacturing, preferably with an export focus and special credit lines for micro-enterprises.^{lv} It is a major provider of credit in the country, responsible for roughly 12 percent of total loans outstanding, about 60 percent of which it lends to the agricultural sector. However, even though it is providing a large amount of credit to the agricultural sector, it seems that DBE has not yet overcome the issues associated with serving this sector profitably, as evidenced by frequent reports about issues with the bank's asset quality and multiple required recapitalizations.^{lvi}

However, fortunately most of the funding that would be necessary to bridge the estimated lending gap of USD 3 billion is available inside the country. Taking into account current excess liquidity in the central bank of USD 0.6 billion and adding an estimated unmobilized deposits volume of USD 2 billion, calculated based on deposit-to-GDP ratios of benchmark countries, indicated a comparatively small overall funding gap. The more critical questions are thus how to turn financial institutions, especially rural ones, into more effective providers of intermediation services, with better skills and services offered, and how to increase their incentives to serve the sector. Therefore, a set of interventions that address these key issues have been identified.

6. Recommendations

This report has described the situation in the Ethiopian agricultural finance sector and has pointed out major challenges for key players along the value chain. It should be acknowledged that the GOE and development partners are already addressing several of the issues identified in this study with specific measures. Examples for these measures include:

- **Stimulating competition** in the Ethiopian financial sector by providing comparatively "easy entry" conditions for domestic private banks, which has led to an increase of players in the market.
- **Buildup of finance-specific and general infrastructure**, such as the development of a credit bureau and national payment system as well as investments in rural ICT and transportation infrastructure.
- **Selected capability-building and training programs**, which are mostly designed for MFIs and financial cooperatives and include exchanges with international best-practice organizations.
- **Financial support** of agricultural players by the GOE via several channels. This includes credit guarantees to farmers, MFIs, and SACCOs to mitigate credit shortages, subsidized credits (e.g., in the context of the HABP as well as direct payments to the chronically food insecure (including, e.g., the PSNP program).

6.1 OVERVIEW

The ability of the financial sector to further serve the Ethiopian agricultural sector could be enhanced through a four key areas of focus. These include: (a) improving incentives and regulation for financial institutions to serve the agricultural sector, (b) increasing the participation of financial institutions in rural sectors by starting to use them as a channel for government cash flows, (c) accelerating the introduction of new product offerings, and (d) improving the overall "fitness" of the financial sector.

Within these four key themes, nine specific interventions to improve the provision of financial services to the agricultural sector have been identified. These are detailed below.

Table 1: Overview of recommendations

Theme	Recommendations	
Improving incentives and regulatory environment to increase financial services in the rural sector	1	Setting the right incentives for financial institutions to serve the rural sector
	2	Improving the regulatory environment for rural financial institutions
Strengthening rural financial institutions by using them as a channel for government cash flows	3	Providing input credit (primarily for fertilizer) through SACCOs or MFIs
	4	Increasing financial inclusion and further strengthening rural financial institutions by using them as a channel for other non-credit government payments
Accelerating the introduction of new product offerings	5	Putting in place the right conditions to increase the offering of insurance products, starting with index-based weather insurance
	6	Scaling up the current warehouse-receipt system
	7	Fostering the build-up of IT infrastructure and mobile banking technologies
Improving the overall "fitness" of the financial sector	8	Putting in place a coordinated capability-building program for financial institutions and customers
	9	Increasing " system readiness " for possible further liberalization of the financial sector

6.2 IMPROVING INCENTIVES AND REGULATION

1. Setting the right incentives for financial institutions to serve the rural sector.

To ensure a sufficient supply of credit in rural areas, the government could provide additional and targeted incentives for financial institutions to serve it. The purpose of these incentives would be to make the rural sector financially attractive to serve for both public and private financial institutions.

Incentives could be fiscal in nature, e.g., tax reduction for banks active in rural areas, or co-investments such as a government contribution to investment made by the financial institution as subsidy. Regulatory advantages can also be used as incentives, e.g., providing temporary monopolies to some players who commit to banking the rural areas and especially the agricultural sector. Temporary monopolies would lead to higher probability and quicker realization of pay-off on investments, and therefore private players might also be interested in serving the agricultural sector. However, this would need to be carefully balanced and assessed with the negative effect of such a regulation, which may keep some innovative players out of the market and reduce competition. In many cases, this is a necessary prerequisite to improve product offerings and customer service.

Case study: Fiscal incentives and deposit insurance in Morocco

In 2007 the Government of Morocco decided to establish incentives for banks to serve the rural sector. The long-term goal was to create procedures and incentives for an industry structure that favors competition, innovation, and investment. The idea was to enable a regulatory framework to allow correspondent banking, in particular with MFIs and other rural low-cost distribution networks (e.g., itinerant branch) or post offices.

The fiscal incentives to promote this new system were tax rebates on investments and profits made in rural banking (e.g., 100 percent of the investment in rural distribution infrastructure was deductible from income, no salary tax for employees in rural areas). Additionally they introduced an advantageous tax framework on specific markets, e.g., loans to the particularly poor.

To increase the savings rate especially in rural areas, the government removed some regulatory restrictions and created some special statutes. In particular, guarantee funds were implemented and new players to collect savings were allowed into the market (e.g., MFIs, post offices, mobile banking operators).

Even though results are preliminary, Morocco's agricultural growth program, in which the rural finance reforms were embedded, is already regarded as a significant success with real growth rates around 7 percent in the agricultural sector. Specifically with regard to the financial sector, Morocco has risen significantly in the World Economic Forum's Global Competitiveness Ranking with regard to ease of access to loans and a legal framework that fosters access to credit, both of which are highly important to the rural sector.^{lvii}

The government and donors could also consider well-designed guarantee schemes (e.g. with first-loss-absorption elements) to reduce the risk for credit lenders or a dedicated guarantee on rural deposits to increase savings mobilization in rural areas (as mentioned earlier, NBE is already developing a countrywide deposit insurance system). Incentives for banks to mobilize deposits are generally key in such a program, since – as shown above - much of the required additional capital is currently lying "idle" with customers that do not have access to or sufficient trust in the banking system. Additional direct capital injection into the agricultural sector, via CBE, regional and international development banks, or other donors is also an option, if it is coupled with improvements in the capabilities of the financial sector and the proper incentives for banks to lend these funds profitably to the sector. Providing direct funding support without restrictions or setting up a system of "directed lending", e.g., in the form of mandating local banks to provide their excess liquidity to the agricultural sector, is not recommended. Such an approach, often coupled with the setup of a dedicated government owned agricultural banks that were mandated to lend a certain amount of money to agriculture, has not been very successful in the past. Especially in Africa, many such approaches and institutions have failed or led to massive performance problems. Examples include the Principal Bank for Development and Agricultural Credit in Egypt, the Agribank North West province in South Africa, the Agribank, Zimbabwe, the Land Bank of South Africa and Banrural in Mexico). The issues discussed above regarding asset quality and risk management capabilities in DBE indicate that Ethiopia is also not immune to the problems associated with directed lending.

2. Improving the regulatory environment for rural financial institutions.

Although there is an overall sound regulation for financial institutions in Ethiopia, there are two broad areas that could be improved:

- **Dedicated regulatory framework for financial cooperatives.** The FCA currently regulates financial cooperatives under the same framework as all other multipurpose cooperatives. Should the importance of financial cooperatives in rural areas increase, there will be a clear need for a dedicated regulatory framework that is similar to regulation of MFIs. Due to the fact that some financial cooperatives are engaged in finance on a (relatively) large scale, they need specific governance structures, proper risk management systems, and a regulator that deeply understands financial markets.
- **Countrywide deposit-insurance system.** Although limited access to financial institutions might be the primary cause of low savings rates, increased trust in the financial sector from a nationwide deposit-insurance system would help increase savings mobilization. A first step could be a guarantee for all deposits given to banks and MFIs. In later stages, financial cooperatives could be included. The deposit insurance should be under the oversight of NBE, which has already started to conceive a deposit insurance system.

6.3 STRENGTHENING RURAL FINANCIAL INSTITUTIONS BY USING THEM AS A CHANNEL FOR GOVERNMENT CASH FLOWS

3. Providing input credit (primarily for fertilizer) through SACCOs or MFIs.

Including financial institutions in the supply of input credit to increase the effectiveness of the system and to help financial institutions in rural areas to strengthen their position is an area of immediate opportunity.

Channeling input credit (e.g., fertilizer credit) through "regular" cooperatives has in the past led to high levels of NPLs as these institutions have struggled to adequately assess customer risk. Channeling these funds through financial cooperatives or MFIs could improve system effectiveness. As input credit is one of the largest credit groups in Ethiopia, this effort must include massive skill-building programs for these institutions. On top of this, the government should develop well-designed credit guarantee schemes (e.g., with first-loss-absorption elements taken by the MFIs that lend the credit to the farmers), so the financial institutions in rural areas have an incentive to properly assess the risk of a borrower. As a result, this intervention will decrease the risk of NPLs, increase the supply of fertilizer credit, and strengthen rural financial institutions by providing them with new profitable market opportunities. However, the downside-risk of this intervention is that implementation may not be prepared and executed properly. It is not enough to only channel the money through the MFIs; it is important that MFIs are aware of their significant role in agricultural financing and are adequately prepared to assess

the risk of a credit and train the borrowers in risk management. This can be ensured by having the right products in place (refer to Intervention 5 about insurance systems and Intervention 8 about capability building).

4. Increasing financial inclusion and further strengthening rural financial institutions by using them as a channel for other non-credit government payments.

To strengthen the role of financial institutions in rural areas and, at the same time, increase financial inclusion among the very poor, channeling public payments through existing financial institutions is recommended. Doing this would give more individuals the chance to interact with financial institutions and become familiar with this system. To date, many people in rural areas have no incentive to visit an MFI branch – this would change by implementing such a system. One possible example is the integration of financial institutions into a PSNP payment system, as detailed in the following.

This recommendation is based on a larger report published separately by a study funded by the World Bank and the BMGF.^{lviii} Working together with an initiative commissioned by the Food Security Coordination Directorate of the MoARD, the MoFED, and development partners supporting the PSNP to assess the ideas for improving the timeliness and predictability of PSNP transfers, a multipart intervention has been developed based on a social payments-led model.

This builds on the premise that existing financial systems can be used to increase the rate of financial inclusion in the rural sector. One example of such a system is the PSNP, a USD 450 million annual program to distribute payments, usually in exchange for work, to 7.8 million individuals in critically food-insecure areas of Ethiopia. Currently, funds are generated by donors and government agencies and channeled through NBE and the CBE before they reach *kebele* payment points, where cash payments are distributed directly to recipients in paper envelopes once every month. Such a payment system excludes linking recipients to financial service providers.

Linking the large PSNP payment base to existing financial institutions (MFIs or other financial service provider) could have significant positive impact. The role of the financial institution would thus be expanded sequentially from merely supporting the distribution of these funds and offering paper-based financial services to distributing payments electronically and offering electronic financial services. The proposed intervention has three parts:

- **Manual system improvement.** Reform the existing manual-based cash payment system implemented by the MoFED in coordination with the FSCD. This aims to improve the efficiency and effectiveness of the current PSNP payment system nationwide.
- **Electronic reporting.** Exploit the potential of the PASS to address bottlenecks in the current PSNP reporting system by introducing electronic reporting. This aims to relieve current bottlenecks in the timeliness and quality of PSNP reporting that result in delayed payments.

- **Payments with financial services.** Pilot innovative linkages between the PSNP and financial intermediaries such as MFIs or rural financial cooperatives, including the use of technology. This aims to test innovations that could significantly improve the predictability of payments to PSNP clients, while also improving the accessibility of financial services.

The latter has especially strong potential to address the lack of access to financial services for rural populations. The PSNP offers a base to reach rural populations at a lower cost compared with other methods. This arrangement will also have the potential to increase the impact of PSNP payments, as studies have shown that distributing payments with financial services increases the impact of those payments.^{lix}

This part of the proposal includes three phases of interventions. First, financial intermediaries, such as an MFI or SACCO loan officer, should be present at the payment point to offer financial services to recipients. Initially, services offered will be paper based. Second, recipients will receive an ID card and each payment point will receive a POS. This POS will interface with a third-party central server to verify identity and track payments. Third, electronic financial services will be added, expanding the financial intermediary capacity and creating new opportunities for innovative services. The creation of the electronic channel will also encourage other donors to leverage the installed infrastructure.

6.4 ACCELERATING THE INTRODUCTION OF NEW PRODUCT OFFERINGS

5. Putting in place the right conditions to increase the offering of insurance products, starting with index-based weather insurance.

Insurance products play a very important role in mitigating the high risk of the agricultural sector for both customers and financial institutions, and should be rolled out in the whole sector. This includes all types of insurance, such as health, life, and weather. Implementing a working weather insurance system can be a first step; however, other insurance products (e.g., life, health) should follow in the long run. There has already been a very successful pilot in Ethiopia, described in the box below.

Example of Nyala insurance pilot in Ethiopia

In several parts of Ethiopia, index-based weather insurance has already been successfully piloted. In 2007, the private insurance company Nyala collaborated with Oxfam and the World Food Programme to develop multiple peril (multiple peril crop insurance combines a yield index with indemnity-based insurance for other perils) and weather index insurance products. Weather index insurance is based on measurements provided by meteorological stations.

A weather index measures a specific weather variable (such as rainfall or temperature) at a specific weather station over a defined period of time. The insurance policies specify a threshold and a limit that establish the range of values over which indemnity payments will be made. If the insurance policy protects against extreme weather conditions (excess rainfall or extremely hot temperatures), an indemnity is paid whenever the realized value of the index exceeds the threshold.

The effort also included cooperatives as distribution channels that educated farmers, collected premiums, and distributed the payouts in case of indemnity. Especially as the farmers could see that there is a chance for a payout, the pilot was highly successful with strong growth in the number of farmers from 120 in 2007 to 1,623 in 2009. According to interviews with farmers and market experts, most of the farmers in the pilot region reported high satisfaction levels with the new insurance product.

In order to scale up these piloted efforts, governments and donors need to upgrade the meteorological technical infrastructure as well as the capabilities of the meteorological personnel, in order to collect the required weather data quickly and reliably. There is also a need to increase financial literacy and awareness of insurance products among the farming community. This can be done in Farmer Training Centers, MFIs, or SACCOs. MFIs and SACCOs can be leveraged to advise farmers on and sell them the correct insurance products for their needs. However, most MFIs and SACCOs will also need training to understand insurance basics and to get advice on how to sell insurance products. A regulatory framework for micro-insurance should be put in place and the government should potentially subsidize the ramp-up of a national insurance system to speed up the process. In the long run, the goal should be to have a working weather insurance system in place and also to be able to offer the full suite of standard insurance products to the population in Ethiopia. The following box describes some success stories for implementing micro-insurance systems in Asia.

Success stories from overarching insurance systems in Asia

Besides agricultural-focused weather insurance systems, there are far more developed and overarching rural insurance programs, especially in Asia. Life insurance (usually in the form of loans insuring against the borrower's death) is the most common insurance product, while health insurance is least common (health insurance is usually very difficult to offer). Commercial insurers are the most common providers, and NGOs and MFIs with close community ties regularly serve as their distribution network. Where micro-insurance has been successful, insurers have relied on innovation in three areas, namely distribution, underwriting, and claims management.

In **distribution**, insurers in Asia often partner with local religious institutions, MFIs, and other "social aggregators" to distribute policies. This overcomes two challenges – providing a trusted channel to connect with potential policyholders and offering the chance to insure at group rather than individual level. Partnering with those existing distribution channels offers a low-cost way to access policyholders (e.g., Western Union, Indian fertilizer company). Due to cost limitations in **underwriting**, this cannot be done in a tailored way. Products must be designed so that they can be highly commoditized (e.g., by allowing one premium to cover a year's insurance). Providers can also avoid adverse selection by making policies available through workplaces that demand or require healthy workers (e.g., Sri Lankan tea plantation).

Claims management needs to be low cost and demonstrate insurers' credibility in order to earn community members' trust. In interviews, an executive leading one major micro-insurance operation said that his group makes a "big deal" out of the first policy payouts in a community, ensuring payments are made quickly after claims, with little fuss, in order to build trust. Partnering with local community groups also helps expedite claims management because these groups have such strong knowledge about the goings-on in their communities.

6. Scaling up the current warehouse-receipt system.

Scaling up the current trading system established with the Ethiopian Commodity Exchange (ECX) to further improve the tradability of goods and possibilities for value chain financing is strongly recommended.

The ECX became operational in December 2008 and was established to facilitate the exchange of commodity goods after identifying the need to establish a viable marketing system for Ethiopia. The ECX has begun working with the International Finance Corporation to develop a warehouse receipt system that will allow agricultural output to be used as collateral.

The benefits of the warehouse receipt system include reducing post-harvest losses by utilizing more professional storage, improving the tradability through widely accepted quality standards, and allowing agricultural output to be used as collateral. For lenders, it allows for reasonable estimation of collateral value and a mechanism for easy disposal of assets in case of default of credit. For the overall system, the ECX could be the natural owner of the development of a "credit history" of depositors. The ECX system will also help to increase the opportunities for value chain financing as traders will be more willing to finance smallholders if they have a liquid market where they can receive credit themselves.

Typical transaction with ECX involvement

The producers/traders deposit crops of a pre-specified quantity into one of roughly 1,000 ECX warehouses for a fee. Certifiers assess quality and storage standards of crops, while insurers provide insurance against catastrophic loss during storage. The warehouse provides receipts to producers/traders, which can take them to ECX-approved lenders. These lenders then provide credit to producers or traders (with the ECX coordinating the collateral portion of the contract). In case of default, the lender takes ownership of collateral and sells it on the ECX. The role of the GOE is to provide a regulatory framework for storage and receipt trading. Price providers on the stock exchange provide price information for crops.

The recommendation is to firstly execute on the current plans to establish warehouse receipts as a commercially viable and sustainable system in the whole country. The system can be further improved by implementing the following measures:

- Increasing the number and type of financial intermediaries (lenders) to include other financial institutions such as MFIs and, in the long run, even financial cooperatives.
- Increasing the range of borrowers/market participants who can access the system by allowing smaller transactions, increasing the range of crops covered and also timeframes of contracts.

The ECX and the warehouse receipt system are examples of strong government and donor-led efforts to create strong institutions that can significantly enhance the agriculture finance market in Ethiopia. The challenge will be to drive sufficient volume and work with rural institutions such as MFIs to allow it to become a widespread enabler.

7. Fostering the buildup of IT infrastructure and mobile banking technologies.

Further government investments in mobile technology infrastructure are important for the further development of Ethiopia; however, the GOE must also create the right incentives for others to invest in the development of mobile technology. There are already intensive discussions in Ethiopia on mobile banking and the development of a uniquely Ethiopian solution that centers on the financial institutions rather than the technology provider. An acceleration of those discussions is encouraged as the benefits to the rural sector from such development are substantial.

Mobile banking enables people to safely store or transfer money and get access to funds in distant areas, thereby expanding access to the thus far unbanked populations. The advantages for the agricultural sector will be increased access to financial services, the opportunity to receive money without having bank access, lower transaction costs than traditional banking channels, and the opportunity to use the mobile banking system for different purposes (buy airtime, send money, save money, pay bills). There are also advantages for financial institutions. For banks, the key opportunity is the huge market of so-far unbanked people in remote areas who can be addressed with a branchless banking approach. Case studies from other countries show that it is

possible to establish a profitable mobile banking system (e.g., M-PESA in Kenya) in developing countries and therefore the goal of the government should be to attract investors to set up the right system and the necessary infrastructure. There will have to be a sound regulatory framework that ensures adherence to the interests of the government, the population, and the system provider. It is important especially for system providers to have reliable regulation that ensures some security for investments (e.g., regulation regarding technical standards or security requirements).

Case study: Mobile banking in Kenya with M-PESA

M-PESA is a mobile money service offered by Safaricom in Kenya, launched in March 2007. By early 2010, 37 percent of all Safaricom subscribers were using M-PESA (around 5 million of a total of roughly 13.6 million subscribers). The service caught on much more rapidly than expected. M-PESA now offers savings, domestic money transfers, airtime purchases, and limited bill pay.

Transactions are coordinated via SMS, through which customers can buy and send e-money. The M-PESA money is stored centrally in one bank account at the Commercial Bank of Africa. As of 2010, there are 10,000 M-PESA agents (agents have to apply to sell M-PESA in addition to airtime and face more stringent requirements). There are also plans to expand the service to enable card-free withdrawals from ATMs.

M-PESA is designed to be affordable to any customer who can afford a mobile phone (no start-up costs and no minimum balances or transaction sizes). The only barrier to using M-PESA is a customer's ability to afford a phone (limited to one account per phone, though people without accounts often ask friends to send funds on their behalf). To sign up, customers need a national Kenyan ID and Safaricom account. (Here it was very important that Kenya has a credible national ID system). Due to the fact that M-PESA does not pay interest on accounts, and since it uses a stored-value system, it is outside of Kenyan banking regulations. However, both financial and telecom regulators were engaged from the start.

The initial funding was a co-investment by the United Kingdom's Department for International Development and Vodafone, who each invested USD 1.7 million. The aim is to expand to international remittances, especially between the UK and Kenya (20 percent of foreign remittances in Kenya are from the UK).

6.5 IMPROVING THE OVERALL "FITNESS" OF THE FINANCIAL SECTOR

8. Putting in place a coordinated capability-building program for financial institutions and customers.

Changes in the policy framework and in the distribution of responsibility in the financial sector need to be accompanied by strong efforts to change the mindset and capabilities of stakeholders, on both the customer and supply sides.

Within the agricultural finance sector, the majority of potential customers lack basic business skills and understanding of financial products such as financing and risk management tools.

Financial institutions, such as MFIs, SACCOs, and commercial banks, lack understanding of farming economics, especially risk management.

In order to develop these critical skills and change mindsets, a systematic assessment is first required to understand knowledge gaps and priority areas. In a second step, coherent training modules and other supporting elements, such as change stories, incentive structures, and role models, need to be designed. For financial institutions, this would entail developing standard curricula with regard to key banking processes, with a strong focus on risk management. This training program should be delivered through existing channels (e.g., extension system to educate rural populations) and newly developed institutions (e.g., national banking or MFI training academy to support financial institutions). To ensure the highest quality standards, a broader perspective and expertise from outside the country can be brought in to build a first-class training system that could be available for public and private players. With regard to the rural sector, there are already plans to leverage the existing extension system to develop financial literacy in the farming community.

9. Increasing "systemic readiness" for possible further liberalization of the financial sector.

This report recognizes the strong regulatory framework in the Ethiopian banking sector and the advancement that has been made in this framework, especially liberalization efforts which enable the growth of new private banks. The regulation in Ethiopia is very much in line with regional benchmarks. However, in order for the sector to further expand those gains, broaden its reach among the rural population, and become a driver of agricultural growth, further innovations and improvements should be considered. In addition to the other recommendations outlined above, one issue that the government may consider is the possibility of slowly opening up the banking sector to foreign institutions. Although such a policy comes with risks and needs to be considered and rolled out very carefully, it could have positive implications for the entire Ethiopian economy.

Consideration of such a policy, however, should only be undertaken when the local banking sector is in a strong enough position to benefit from any introduction of outside players. This requires a long-term commitment by the GOE and local stakeholders to address some system issues, which can provide benefits even if external partners are never invited into the domestic economy.

Slowly and carefully opening the market to selected international player(s) might help to speed up the capability-building process and deliver other benefits. In particular, the potential for fast skill transfers with regard to new technologies, products, and management techniques can be seen as one of the key advantages. Customers would benefit from the new competition, especially from innovative product offerings and increased customer support. With regard to funding/capitalization of banks, a foreign investor could help provide access to international

capital markets. Another advantage would be better overall economic diversification as the risk of the banking sector would be shared among international investors, not just nationally. There would also be potential to strengthen regulatory framework through "imported" regulation.

However, there are also significant risks when of liberalizing a market and introducing foreign bank participation in an environment that is not sufficiently prepared. Foreign banks might "skim" the most attractive market segments and leave local banks with unprofitable customers (potentially causing massive exits). Local regulators could have challenges coping with foreign players, causing potential systemic instability. Moreover, Ethiopia could be exposed to risks connected to new players in the market (risks in foreign banks' home countries, potential short-term engagement mindset, failures of new entrants due to inability to cope with local market conditions).

Nevertheless, examples from other countries demonstrate that the benefits can be captured only if the local banking system properly builds up "systemic fitness" before foreign bank entry. This study proposes to develop a "fitness" program that consists of four steps. First, develop a target vision for the financial sector (including role of different types of local banks, government, foreign banks). Second, design and implement a customized "fitness program." This would include mergers of subscale institutions, skill upgrades in all parts of the value chain of financial institutions, potential creation of a "national champion" and the upgrade of regulation to international standards. Third, introduce an incentive structure for foreign entrants and develop specific regulation to keep foreign behavior in line with the target vision. Last, select a desired entry model for foreigners that provides a clear roadmap to execute. Even if the market liberalization does not happen in near future, the steps above could prepare the finance sector by implementing the proposed fitness program.

7 Implementation

As mentioned earlier, the greatest impact of the proposed interventions above can only be achieved if the activities are implemented in a clear, systematic, and coordinated manner. The diagnostic work has identified concrete actions for each of the interventions and grouped them accordingly (Figure 10). With regard to implementation responsibility, the Ministry of Finance and Economic Development and the Central Bank of Ethiopia have to take a leading and coordinating role for most of the suggested interventions. Coordination of these initiatives has to happen with other financial sector reform programs in the country (that are not specific to agriculture) and the overall agricultural growth acceleration program outlined in the holistic summary report that synthesizes the key recommendations from the all diagnostic reports requested by the Prime Minister and in which MoARD would play a key implementing role.

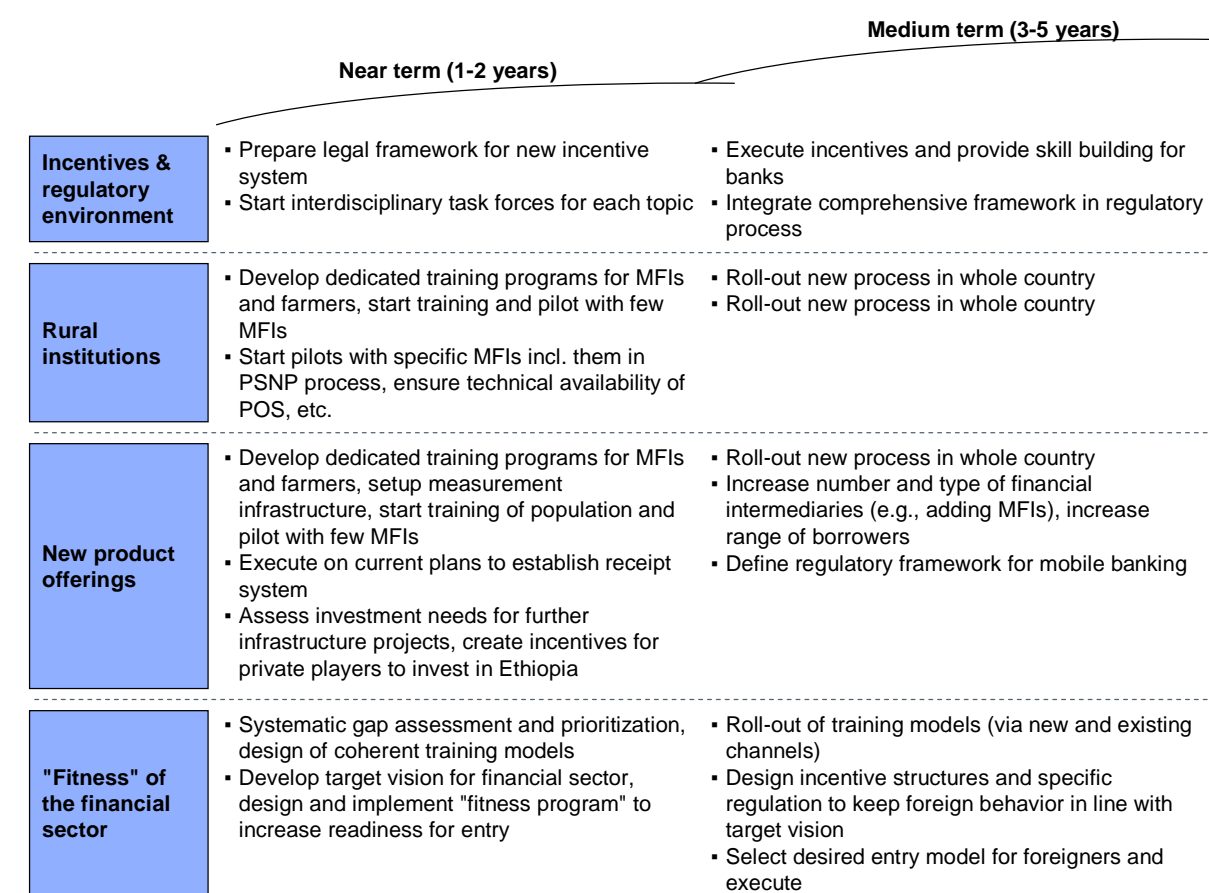
Figure 10: Overview of specific activities in implementation

Theme	Recommendations	Activities to implement
a Improving incentives and regulatory environment	Setting the right incentives for financial institutions to serve the rural sector	1.1 Prepare legal framework for new incentive system 1.2 Execute incentives and provide skill building for banks
	Improving the regulatory environment for rural financial institutions	2.1 Start interdisciplinary task forces for each topic 2.2 Integrate comprehensive framework in regulatory process
b Strengthening rural financial institutions by using as channel for government cashflows	Providing input credit (primarily for fertilizer) through SACCOS or MFIs	3.1 Develop dedicated training programs for MFIs and Farmers 3.2 Start training and pilot with few MFIs 3.3 Roll-out new process in whole country
	Increasing financial inclusion and strengthening rural financial institutions by using as a channel for other non-credit gov't payments	4.1 Start pilots with specific MFIs incl. them in PSNP process 4.2 Ensure technical availability of POS, etc. 4.3 Roll-out new process in whole country
c Accelerating the introduction of new product offerings	Putting in place the right conditions to increase the offering of insurance products	5.1 Develop dedicated training programs for MFIs and Farmers 5.2 Setup measurement infrastructure 5.3 Start training of population and pilot with few MFIs 5.4 Roll-out new process in whole country
	Scaling up the current warehouse-receipt system	6.1 Execute on current plans to establish receipt system 6.2 Increase number and type of financial intermediaries (e.g., adding MFIs), increase range of borrowers
	Fostering the buildup of IT infrastructure and mobile banking technologies	7.1 Assess investment needs for further infrastructure projects 7.2 Create incentives for private players to invest in Ethiopia 7.3 Define regulatory framework for mobile banking
d Improving the overall "fitness" of the financial sector	Putting in place a coordinated capability building program for financial institutions and customers	8.1 Systematic gap assessment and prioritization 8.2 Design of coherent training models 8.3 Roll-out of training models (via new and existing channels)
	Increasing " system readiness " for foreign bank entry	9.1 Develop target vision for financial sector 9.2 Design/implement "fitness program" to increase readiness for entry 9.3 Design incentives/regulation to keep foreign entry in line with vision 9.4 Select desired entry model for foreigners and execute

In the initial stages, a set of activities that form the basis for all future interventions are recommended. This ensures that the momentum of the beginning of the implementation phase is fully leveraged to kick off all important topics. In many interventions, an appropriate skill-building effort plays an important role that should start immediately and coordinate with training programs of other diagnostics (e.g., extension).

In a second phase, actions will build upon the initial activities and elevate the system to higher performance levels. This phase will have the most impact and could last one to two years. In the third and final phase, long-term goals can be realized to finalize the implementation of the interventions. Figure 11 illustrates the sequence of the steps over the next five years.

Figure 11: Overview of specific activities in implementation



8. Conclusion

8.1 OVERVIEW

The findings in this report demonstrate the importance of agricultural finance as a key enabler for agricultural growth in Ethiopia. Despite significant improvements in this area in previous years, and several ongoing efforts by the GOE and its development partners, there is still further improvement potential. This report recommends addressing these with a set of interventions that focus four key themes (a) improving incentives and regulatory environment to increase financial services in the rural sector, (b) expanding financial inclusion by strengthening rural financial institutions as channels, (c) accelerating the introduction of new product offerings, and (d) improving the overall "fitness" of the financial sector.

8.2 FIVE-YEAR SECTORAL VISION

The next five years will be a critical window to accelerate agricultural growth, and agricultural finance will be a key enabler to do this. The initiatives outlined in the recommendations of this report seek to provide a platform for future growth which can lead to an acceleration of productivity in the agricultural sector and the economy as a whole. This will lead to a financial sector that is more responsive to farmers, the agricultural sector and the rural community by becoming more inclusive, healthier, better regulated and supervised. More broadly it will contribute more strongly to agricultural growth through offering better products and services to rural customers.

This can be used as a strong starting point for further initiatives to increase the competitiveness of the rural financial sector and support the next wave of agricultural growth. In addition, improvements made in the rural financial sector can serve as a model for more broad-based financial sector reforms that also enable growth in other sectors of the economy.

8.3 THE WAY FORWARD

The recommendations outlined in this report and in the other sub-sector diagnostic reports are not an explicit roadmap of the activities the Bill & Melinda Gates Foundation is best positioned to solely resource; they reflect a set of findings to support MoARD and all donors in the planning and implementing strategies to accelerate growth and food security in the context of Ethiopia's nationally stated objective to achieve middle-income status by 2025.

Implementing the vision contained in this report will undoubtedly require the effective use of significant human and financial resources. It will require a level of sequencing and coordination that has in the past been challenging to implement at a national-level, not only in Ethiopia, but in success cases globally, from Latin America to East Asia. To achieve these objectives, GOE will

need to work closely with all its partners, ranging from the development community to the private sector.

The findings contained in this report are also complementary to other findings and recommendations across the diagnostic studies supported by the BMGF from April 2009 to June 2010. For example, a strengthened extension system will be critical to increase the financial literacy of farmers and better coordination of service providers in the rural sector, including microfinance institutions, will lead to improved and better tailored solutions with respect to access to inputs such as fertilizer and improved seeds. Because of these interdependencies between the proposed actions in the different diagnostics, the recommendations and sequencing of activities for agricultural finance must be seen within the context of the overall recommendations provided in the holistic and integrated report requested by the Prime Minister. Implemented in concert, the recommendations outlined in this report and incorporated into a holistic set of recommendations in the integrated report have the potential to significantly accelerate the growth of the agricultural sector and support Ethiopia's ambitions of becoming a middle income country by 2025.

Appendix 1 – References and other resources

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End Notes

ⁱ World Bank (2008)

ⁱⁱ CIA (2009 est)

ⁱⁱⁱ MoARD (2010)

^{iv} MoARD, as announced in March 2010, US Department of State, 2010

^v FAOStat, 1998 to 2008

^{vi} Expert interviews

^{vii} Demirguc-Kunt (2006) - for a comprehensive review, see Levine (1997) and Levine (2005)

^{viii} Amha (2010)

^{ix} Amha (2008)

^x Amha (2010)

^{xi} NBE (2008)

^{xii} Kiyota (2007)

^{xiii} NBE (2009)

^{xiv} NBE (2008)

^{xv} AEMFI (2010)

^{xvi} Smith and Chamberlain (2009)

^{xvii} NBE (2008)

^{xviii} NBE (2008), ADB (2009)

^{xix} Amha (2010)

^{xx} NBE (2008), IFS database (IMF)

^{xxi} NBE (2008)

^{xxii} NBE (2008), IFS database (IMF)

^{xxiii} IMF (2005)

^{xxiv} Amha (2008b)

^{xxv} FDRE Central Statistic Agency (2009). Country and regional level consumer price indices. Addis Ababa: CSA

^{xxvi} MoFED (2009)

^{xxvii} World Bank (2009)

^{xxviii} World Bank (2008)

^{xxix} CIA (2009 est)

^{xxx} MoARD (2010)

^{xxxi} MoARD, as announced in March 2010, US Department of State, 2010

^{xxxii} Expert interviews

^{xxxiii} FAOStat, 1998 to 2008

^{xxxiv} FAO (1999)

^{xxxv} AEMFI (2008)

^{xxxvi} Assumption that only 5% of country have irrigation system is based on data from IWMI (in Awulachew et al, 2007) and grey documents from MoWR and MoARD, there is some uncertainty about the exact number and location of some schemes, particularly small-scale irrigation and rainwater harvesting

^{xxxvii} WDI (2009)

^{xxxviii} NBE Risk Management Survey Report 2009

^{xxxix} In 2006, 97 percent of loans required collateral that on average (regional benchmarks: 90) were 175 percent of the original loan value (regional benchmarks: 125), see WB ICA (2009)

^{xl} Data about capitalization of banks in Africa collected from various sources, including AEMFI, WDI, central bank reports, analyst reports, annual reports, banking associations

^{xli} Compare also Abede (1991)

^{xlii} Data about asset quality of banks and other financial institutions collected from various sources, including AEMFI, WDI, central bank reports, analyst reports, annual reports, banking associations

^{xliii} In 2008, the total assets per employee were USD 0.6 million for CBE and USD 0.3 million for private banks (SSA benchmark countries are here slightly above USD 1 million), data collected from various sources, including AEMFI, WDI, central bank reports, analyst reports, annual reports, banking associations

^{xliv} Data about liquidity situation of banks in several African countries collected from various sources, including AEMFI, WDI, central bank reports, analyst reports, annual reports, banking associations

^{xlv} Loan to deposit ratio of public banks (mainly CBE) was in 2008 with 35% extremely low (SSA bank average 68%), data collected from various sources, including AEMFI, WDI, central bank reports, analyst reports, annual reports, banking associations

^{xlvi} Weighted average of Kenya, Uganda, Tanzania, Malawi, and Rwanda; Amha (2010)

^{xlvii} More than 52 percent of all bank branches are located in the eight major towns where only 6.6 percent of the population live (Addis Ababa alone accounts for 37.6 percent of all bank branches); Amha (2010)

^{xlviii} Women's World Bank (2009). *Informal Financing Schemes in Ethiopia and the Gambia and their Implications for the African Microfinance Strategy Initiative* (Wharton field application project), University of Pennsylvania: Philadelphia

^{xlix} AmHa (2010)

¹ According to a survey among smallholder farmers, the purpose of loans is split by: 63 percent farm inputs, 13 percent consumable, 10 percent purchase oxen, 5 percent school or health fees, and only 0.7 percent for start of trade business, 1.9 percent expand existing non-agricultural business (rest: other animals, social ceremony, labor, etc.). Amha (2010)

^{li} NBE (2008), IFS database (IMF), FAO. Notably, these figures only take into account lending volumes by commercial banks and thus very likely understate the true lending amount to the agricultural sector in Ethiopia as it excludes, e.g., lending from MFIs and SACCOs. However, commercial bank lending volumes is the only type of data that is comparable across countries and – on average – foreign data should be understated by a similar amount. Thus, ratios should be well comparable. In addition, note that the low absolute lending volumes of MFIs and SACCOs will not change results significantly

^{lii} Commercial Bank of Ethiopia (CBE) reports that its 2008/2009 outstanding loans and advances to the agricultural sector stood at 12.9 percent. However, compared with 2007/2008 loans disbursed by CBE to the agricultural sector, they declined by roughly 29 percent, while in the same time period, loans disbursed to finance building and construction increased by more than 50 percent. CBE (2010)

^{liii} From their outstanding credits, private banks provide only 3.5 percent to the agricultural sector. NBE (2009)

^{liv} Amha (2008)

^{lv} See e.g., DBE (2007) for this and the following.

^{lvi} E.g., AllAfrica (2008).

^{lvii} Ease of access to loans in Morocco increased from position 72 to position 59 between 2007 and 2010 in the World Economic Forum's Global Competiveness Ranking. For the relevant legal rights index, it improves from positioned 98 to position 94. See World Economic Forum (2010)

^{lviii} Report about PSNP/financial inclusion intervention (not yet published)

^{lix} See, e.g., Seira (2010) for an overview