MCC Evaluation Design

Evaluation of the Access to Rural Finance Activity in Burkina Faso

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List of Acronyms and Abbreviations

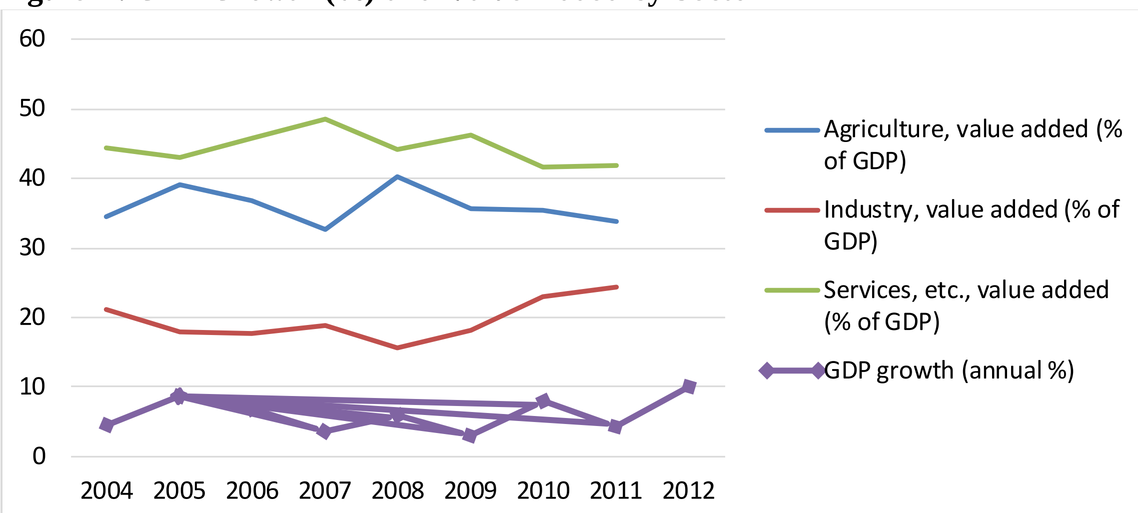
AD10	Consortium of AECOM and DesJardins
ADP	Agriculture Development Project
ARF	Access to Rural Finance Activity
APD	Agence du Partenariat pour le Développement
BACB	Agricultural and Commercial Bank of Burkina Faso
BCEAO	Banque Centrale des États d'Afrique (Central Bank of West African States)
BDS	Business Development Services
CFEAC	Finance Center for Agricultural and Commercial Enterprises
ERR	Economic Rate of Return
GDP	Gross Domestic Product
IRB	Institutional Review Board
MASA	Ministry of Agriculture and Food Security
MCA-BF	Burkina Faso Millennium Challenge Account
MCC	Millennium Challenge Corporation
M&E	Monitoring and Evaluation
PFI	Participating Financial Institution
PMC	Project Management Consultant
RAF Act	Réorganisation Agraire et Foncière (Agriculture and Land Tenure Reform)
RCPB	Network of Credit Unions of Burkina Faso
RFF	Rural Finance Facility
SME	Small and Medium Enterprise

1. INTRODUCTION

1.1. Current Status of Agriculture in Burkina Faso

Burkina Faso is a low-income country with a GDP per capita of about USD 634. It has experienced an average growth of 6% during 2004-2012. Actual growth rates have however fluctuated significantly from year to year, partly due to weather conditions. In 2012 for instance, GDP growth reached 10% (twice the average for Sub-Saharan Africa). The services sector was the largest contributor to GDP (44.9%), followed by agriculture (33.8%), and industry (22.2%).

Figure 1: GDP Growth (%) and Value Added by Sector



Source: The World Bank, World Development Indicators, accessed on March 2014

77.3% of Burkina's population lives in rural areas, with agriculture, livestock and fisheries occupying nearly 80% of the workforce. However, the majority of Burkinabe farmers continue to produce primarily for home consumption: between 60% and 70% of food produced is consumed by the households themselves[1]. Cereals and cash crops such as cotton, peanuts, shea butter and sesame dominate, but the volume and range of exports remain low. Cereals (millet, sorghum, maize, rice, fonio) are grown on 78% of land and play a vital role for the country's food security as they account for nearly 73% of population's food intake. Cash crops (cotton, sesame, peanut, soybean) are cultivated on approximately 19% of the total area and play a key role in exports.[2]

Cotton is one of the leading sectors of the Burkinabe economy. In fact, Burkina Faso is the largest African producer of cotton, which now alone represents 14% of its exports. With a high level of organization, cotton is an economic sector on in its own being overseen by the Ministry

[1] MASA (2011)
[2] MASA (2011)

of Commerce (rather than the Ministry of Agriculture). Cotton occupies about 10-15% of arable land and represents on average 65% of households' cash income.[3]

The sector is characterized by low productivity due to small farm size, unclear property rights due to limited use of land titles, and poor access to inputs and machinery. With arable land being estimated at 9,000,000 hectares, the country has great potential. However, out of this total area, as of 2008, only about 46% was cultivated. Further, 75% of farms are smaller than 5 ha and 30% are smaller than 2 ha. The majority of producers do not have any form of legally recognized land title.[4] Only 0.6% of cultivated land is irrigated and only 44% of farms have any level of mechanization, and those using improved seed amount to only 15%. To address the property right problem, with the support of MCC the Government adopted in 2009 the RAF Act (Agriculture and Land Tenure Reform) recognizing individuals' right of ownership.

Market access is another major constraint for the development of agriculture in Burkina Faso. The rate of retailing remains low, with about 6-9 % for cereals and 40% for cash crops. Storage techniques and facilities remain inefficient, with losses being as high as 30% for cereals, thereby reducing farmers' competitiveness. Transformation is still at an initial stage and dominated by artisanal and semi-industrial units. This situation may be explained by a low demand for processed products, low stakeholder access to equipment and processing infrastructure, low incentive for the establishment of processing companies and strong competition with imported products.

The financial system serves agriculture only marginally, and even less so if the cotton sector is excluded. The volume of lending fluctuates greatly with climatic as well as overall macro-economic conditions (see Table 1). Whereas short-term loans to agriculture amounted in 2011 to about USD 53.3 Million (i.e., 4.2% of total short-term lending), for instance, this volume dropped to just USD 38.2 Million (2.3% of total short-term lending) the next year. The amount of medium- and long- term loans to agriculture was even lower, with only about 0.6% of agricultural loans in 2012 (the amount in USD decreasing from 8.6 Million in 2010 to 3.98 Million in 2012). In contrast, during the same years, the commercial sector's share in total loans was 34.6% and 46.5% while the public works' share was 20% and 15.8% respectively.[5]

Only 2.1% of farmers are able to obtain loans, of which 35.4% are in cash and 61.3% in inputs.[6] About 1.7% of households receive a loan for equipment (usually from the supplier). The main constraints to access formal finance are: (i) the absence of or inadequate collateral, (ii) poorly designed financial products (that are not adjusted to agriculture-specific cash flows) and (iii) the lack of adequate financial resources for medium and long term lending (iv) volatile income due to various natural hazards (weather, diseases, etc.). Innovative financial mechanisms, such as warehouse receipts, leasing, mixed financing, are still in their infancy.

Today, **Ecobank is a leader in agriculture finance with the largest volume of loans disbursed to the sector** (FCFA 47 B / USD 97 Million)**.** Ecobank acquired in 2009 the state-owned Agricultural and Commercial Bank of Burkina Faso (BACB),

[3] MECV (2011)
[4] MASA (2011)
[5] BCEAO (2013)
[6] MASA (2008)

and became the largest bank in Burkina in terms of assets, resources, employment and geographical coverage. Ecobank's stated goal is to serve all agriculture subsectors. However, the bank's portfolio is heavily concentrated (80%) in cotton, due to the lack of organized value chain in other sub-sectors.[7]

Table 1: Loan Distribution by Sector and by term (USD, Million)

Business Sector	**Short Term 2010**	**Short Term 2011**	**Short Term 2012**	**Short Term %2012**	**Medium and long term 2010**	**Medium and long term 2011**	**Medium and long term 2012**	**Medium and long term %2012**
Agriculture	39.72	53.32	38.18	2.28%	8.60	7.19	3.98	0.58%
Extractive Industry	6.25	18.79	13.73	0.82%	10.25	15.96	9.78	1.41%
Transformation Industry	190.38	162.82	164.82	9.86%	51.92	56.29	65.78	1.41%
Electricity, Water, Gas	18.62	23.06	22.09	1.32%	5.57	9.85	21.88	3.16%
Construction	222.17	251.24	263.68	15.78%	29.65	72.54	47.37	6.85%
Wholesale and retail commerce, restaurants, hotels	318.24	434.99	777.29	46.51%	62.83	91.51	127.16	18.39%
Transport, warehouses, communication	82.75	100.35	103.63	6.20%	68.08	76.97	123.46	17.86%
Insurance, Real Estate, Enterprise Services	45.50	48.30	75.07	4.49%	22.95	29.94	17.74	2.57%
Social Services	165.88	163.18	212.86	12.74%	136.39	181.22	274.22	39.66%
TOTAL	**1089.53**	**1256.06**	**1671.35**	**100.00%**	**396.24**	**541.46**	**691.39**	**100.00%**

Source : BCEAO (2013)

[7] There are three cotton trading companies operating in Burkina Faso, each monopolist in a specified geographical area. They provide technical assistance to farmers as well as inputs on credit. They purchase the cotton produced by the farmers and then deduct these advances from the amount to be paid to farmers. This process of organization is supported by measures taken by the government, such as input price subsidies. This well-structured access to market reduces repayment risks from the perspective of financial institutions and makes them more willing to finance the sector. However, this funding is almost exclusively short-term in nature. Although critical, it also does not address the fundamental problem of sustainability of the cotton sector in Africa, namely lesser quality and low productivity.

The agricultural portfolio of microfinance institutions is also focused on the cotton sector. The Network of Credit Unions of Burkina Faso (RCPB) represents 75% of the microfinance sector in the country and it devotes about 22% of its portfolio to agriculture (which is about 40 Million USD), half of which is cotton. RCPB was created in 1970 with support from Desjardins International Development. Currently, about two thirds of its members belong to the urban banks of Ouagadougou and Bobo-Dioulasso. In order to professionalize the Network, four Enterprise Finance Centers have been established to evaluate and manage loans of over FCFA 5 Million (about USD 10,300). Recently, the first Finance Center for Agricultural and Commercial Enterprises (CFEAC) was created to develop financial products tailored to the agricultural sector, including inventory credit system[8] in collaboration with farmers' organizations (however, this is not yet widely used).

[8] The inventory credit system is a type of rural credit, whereby farmers are able to use output deposited in a warehouse as collateral for a loan.

1.2 Objectives of this report

A2F Consulting was contracted by MCC to conduct an independent evaluation for the Access to Rural Finance (ARF) Activity, which was part of the Agriculture Development Project (ADP) of MCC's Burkina Faso Compact. The ARF was instrumental to the other ADP activities, namely since it was designed to facilitate access to medium term credit for investments in irrigation and agricultural diversification for SMEs working in agriculture value chains in the southern and western regions of Burkina Faso. The ARF Activity consisted of three sub-activities: (i) a Rural Finance Facility (RFF); (ii) training of the Participating Financial Institutions (PFIs); and (iii) support to potential end-borrowers through Business Development Services (BDS) providers.

The evaluation will seek to understand the degree to which planned activities were implemented, the validity of the program logic and its assumptions, output and early outcome results, and lessons learned from project implementation using a mixed-methods approach. This report presents the evaluation design, including the research questions, methodology for sampling, data collection and analysis, data sources, evaluation materials and documentation of IRB approval, dissemination activities and work plan. The design was developed based on the information and documents provided by MCC and following a scoping mission conducted in Ouagadougou, Burkina Faso, in November 2014.

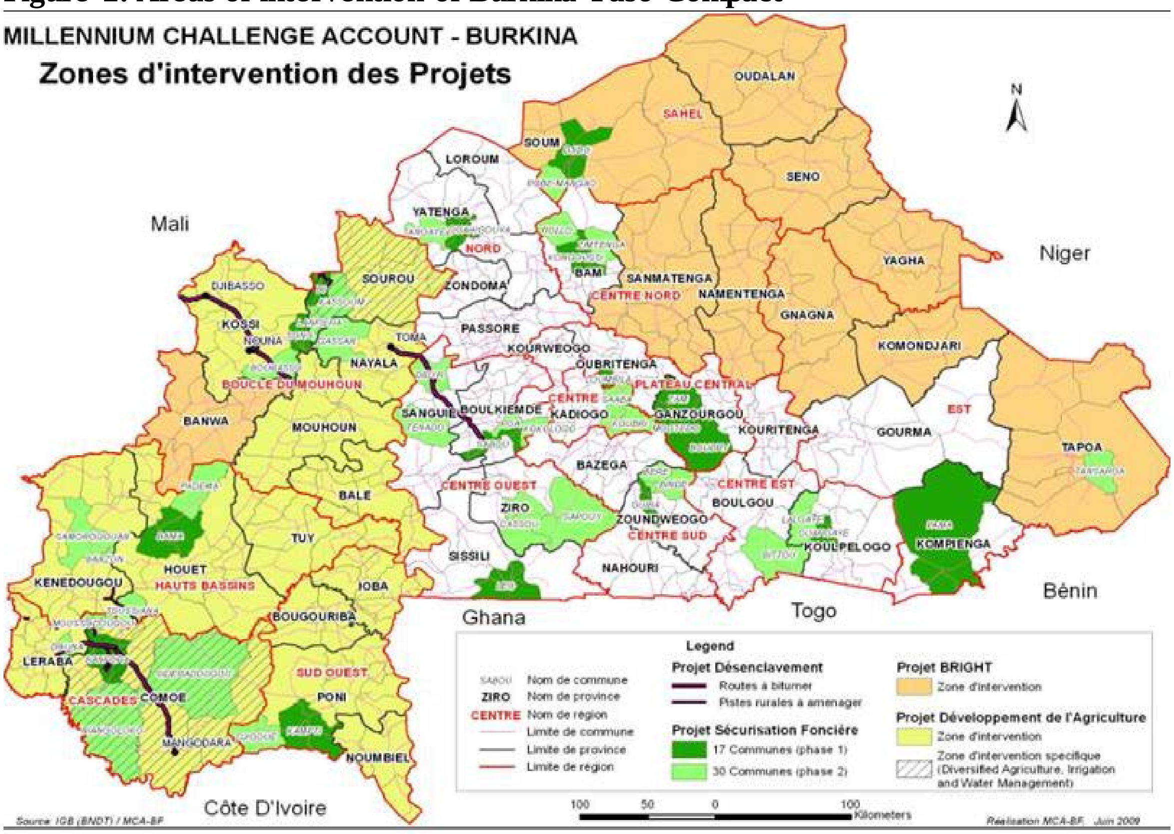
2. OVERVIEW OF THE COMPACT AND THE INTERVENTIONS EVALUATED

2.1. Overview of the Project and Implementation Plan

MCC signed a five-year Compact with the Government of Burkina Faso in July 2008. For this purpose the MCA-Burkina Faso was established as an independent legal entity responsible for implementing the Compact on behalf of the Government of Burkina Faso. The Compact entered into force in July 2009 and ended in July 2014. Its goal was to stimulate economic growth and reduce rural poverty through investments in four projects: Rural Land Governance Project, Agriculture Development Project (ADP), Roads Project, and the Burkinabe Response to Improve Girls' Chances to Succeed (BRIGHT II) Project.

The Agriculture Development Project was designed to increase rural incomes and employment and to enhance the competitiveness of the rural economies in the Sourou Valley and the Comoé Basin by addressing core constraints to economic growth in the country, namely limited access of producers to skilled labor, markets and inputs, water resources, and credit. The ADP has three main components: the Water Management and Irrigation Activity, the Diversified Agriculture Activity and the Access to Rural Finance Activity.

Figure 2: Areas of intervention of Burkina Faso Compact



The scope of work of this evaluation concerns the Access to Rural Finance (ARF) Activity under the Agriculture Development Project. With an initial budget of approximately $14 Million, this activity was designed to increase access to credit for small and medium enterprises working in agriculture value chain activities in the four western regions of Burkina Faso (Boucle du Mouhoun, Cascades, Hauts Bassins, and Sud-Ouest). ARF consisted of three sub-activities: (i) a Rural Finance Facility (RFF) to offer medium-term financing; (ii) training of the Participating Financial Institutions (PFIs) which extended the loans via RFF funding; and (iii) support to potential end-borrowers through Business Development Services (BDS) providers to reinforce their capacity to manage their finances, thereby reducing perceived risk of the PFIs and any other financial institution considering expansion into the sector.

The Rural Finance Facility (RFF) was a loan fund, initially set at $10 Million, through which MCA-Burkina Faso made medium-term loans to selected PFIs. The PFIs then used the RFF funds to make their own loans of up to $100,000, with maturities from 18 months to five years, to farmers and small- and medium-sized, rural and agricultural enterprises in the western regions of Burkina Faso for investment purposes. The PFIs were responsible for their own end-borrower appraisal and loan approval process, in addition to which they had to fulfill the required environmental standards. MCA-BF lent the funds to the PFIs at 3% per year, a subsidized rate, which was supposed to help mitigate the perceived risk of rural lending. The PFIs could on-lend to the end-borrowers at market interest rates, but had to repay the medium-term financing whether or not the end-borrowers repaid. PFIs meeting certain performance standards could apply for Challenge Grants to strengthen their rural lending operations in the target regions. The Challenge Grants were initially to be funded from the RFF. A consortium of DesJardins and AECOM (referred to as AD10) was hired as a consultant to launch and manage the Rural Finance Facility (RFF) activity under the supervision of MCA-BF and to ensure proper transfer to a local successor institution at the end of the contract.

Capacity building to the RFF PFIs was to be provided by the external consultant AD10 to help PFIs profitably and securely expand rural lending. As a result of the training, the PFIs were supposed to introduce tailored methodologies and technologies whereby they could cut the costs and risks associated with rural and agricultural finance. The PFI capacity-building included the development and implementation of an accreditation program for the PFIs' rural lending officers, and support to the PFIs in adopting new methods and tools for rural financing. The rural lending accreditation program included six training modules: Overview of Rural and Agricultural Financing, Concepts of Financial Analysis and Credit Approval, Analysis of an Agricultural Loan Request, Management of Agricultural Financing Risks, Gender Issues in Rural Financing, and the RFF and Environmental Risks. This sub-activity was expected to take place over the first three years of the AD10 contract. The Consultant, under MCA-BF's oversight, was to work directly with PFIs, other financial institutions, regulators, and financial sector donors. To provide additional, more general, support to the development of rural finance in Burkina Faso, under this sub-activity the consultant was also supposed to make recommendations on regulatory reforms to support rural finance.

Support to potential end-borrowers was provided through Business Development Services (BDS) providers to help them improve their business and financial management and thus their access to finance. AD-10 supported MCA-BF in selecting the participating BDS providers and training the participating BDS providers. Services to be provided were: diagnostic and action plans, preparation of loan applications, management training and advice, and technological or scientific services[9]. Price caps were set for the various services, but the Providers were free to set their own prices in their service contracts with clients. MCA-BF's BDS fund provided subsidies on a sliding scale from 70% (for larger enterprises) up to 90% (for the smallest clients) of the capped price. If the BDS Provider charged more than the price cap, then the client paid for 100% of the amount over the cap. The subsidy would be paid upon delivery of proof of client's payment and copies of satisfactory deliverables to AD10. This sub-activity was supposed to be carried out over a 12-month period with an initial budget of $1 Million.

The implementation of ARF activities experienced multiple delays and all the ARF sub-activities did not become fully operational until early 2013, two and a half years after the expected start date. The RFF Procedures Manual and administrative structure underwent multiple revisions owing to concerns arising from the Ghana compact credit program and the role of the fiduciary agent as well as an initial unauthorized disbursement, which violated procedures. These revisions cumulatively delayed the implementation for approximately one year. Furthermore, protracted contract negotiations between MCA-BF and the AD10 consultant led to an additional six-month delay. As a result of all these delays, the first RFF disbursements to PFIs were not made until 2012. While BDS providers were selected early in 2012, a payment management issue was not resolved until later that year, leading to BDS providers receiving training and beginning to recruit potential end-borrower clients end 2012.

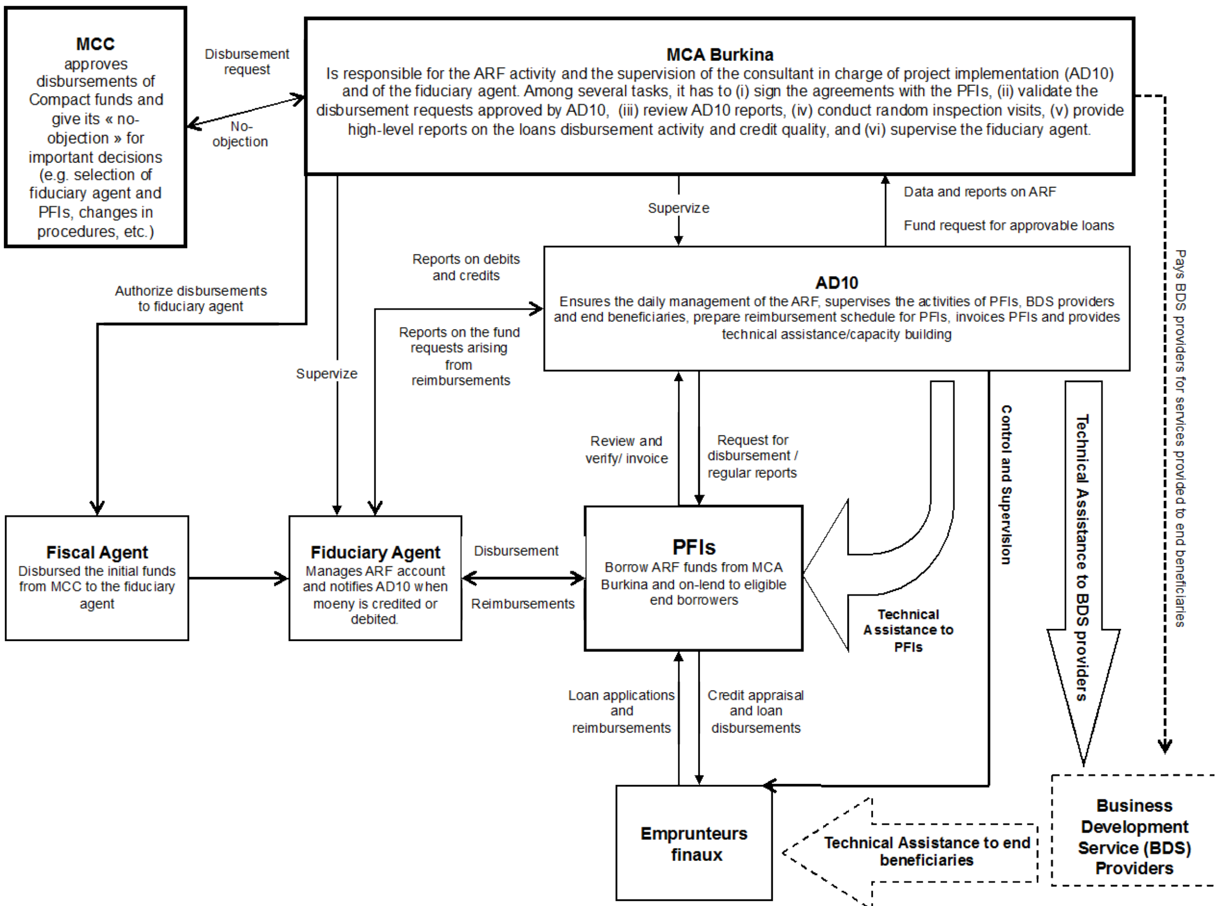
The Access to Rural Finance budget also experienced several revisions, with funds being reallocated from the actual Rural Finance Fund to increase the AD10 contract due to additional Rural Finance Facility and Business Development Services management responsibilities. In 2013, $4 Million was reallocated from the ARF budget to make funds available for the Di optional tranche under the Irrigation and Water Management Component of the Ag Development Project. The total Rural Finance Facility budget was reduced down to $5 Million.

The ARF activity was terminated mid-2013, one year before the end of the Compact.

[9] These services are directly related to the product or service the company with the aim to improve, secure and diversify the company's offerings. These services also included measures targeting energy savings, better physical facilities, best practices and other measures to positively influence the company's balance sheet.

Players involved in the implementation of the ARF activity, their roles and responsibilities are summarized in Figure 3 below:

Figure 3: Stakeholders' roles and responsibilities



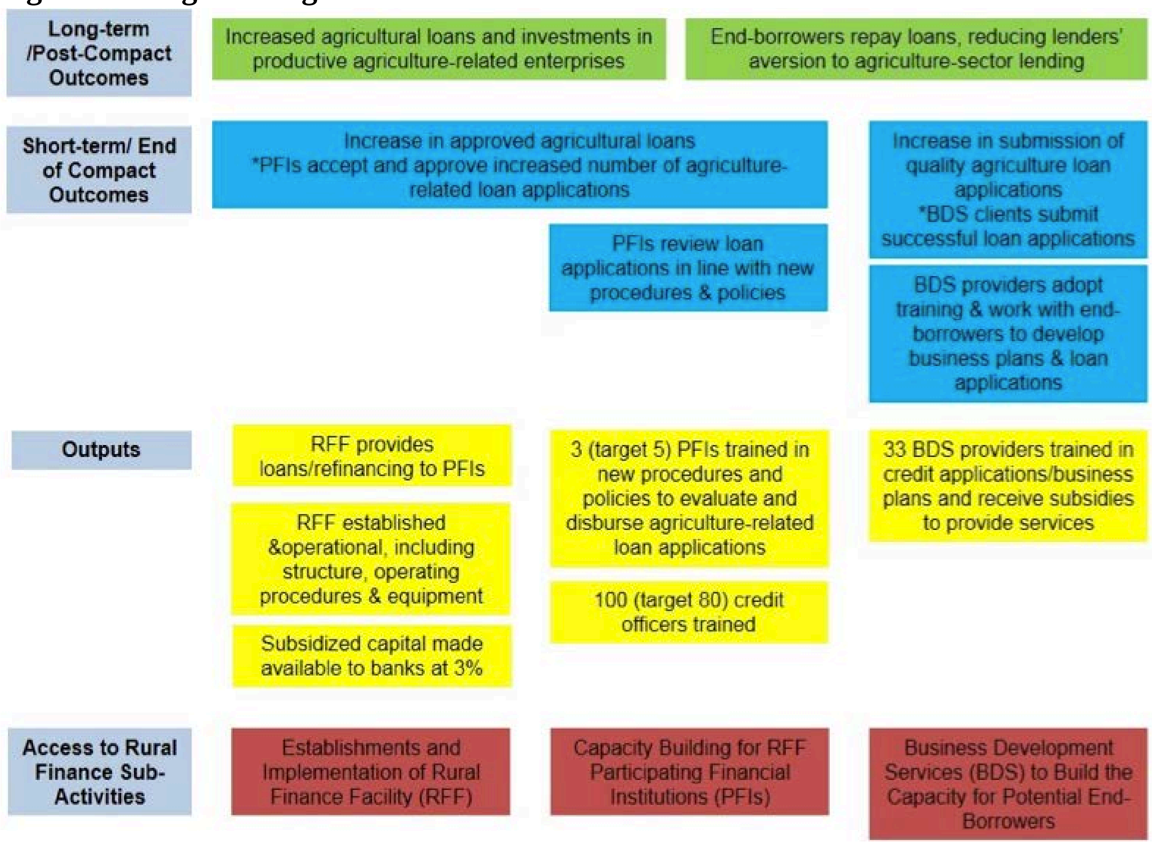
Source: Adapted from MCC/MCA-BF

The Ministry of Environment also played an important role as it was responsible for developing and delivering the environmental forms.

2.2. Key Program Indicators and How They Lead to Expected Outcomes

The following figure presents the project logic for the ARF activity with related activities, outputs, outcomes and expected impacts.

Figure 4: Program Logic



Source: Evaluation ToRs; MCC

As per Program Logic, the provision of subsidized medium term funds combined with training of PFIs was expected to mitigate their risk and increase their confidence in agricultural and rural lending. At the same time, the support provided by BDS providers to end-borrowers was expected to increase the quality of loan application and to strengthen rural enterprises' business management skills and, as a result, further decrease PFIs' perceived risks. Therefore, in the long-term PFIs were expected to increase their rural portfolio and end-beneficiaries were expected to repay loans more easily thanks to better management and increased productivity.

Based upon the interest expressed by Burkinabe financial institutions, estimates of the unmet loan demand in the region, and of usage from the financial sector, Tables 2-5 outline MCA-BF's expected yearly and final targets especially that:

- The annual RFF loan demand by PFIs would begin at $1 Million in year one (through an estimated 100 loans), peaking at $4.5 Million in year five.
- At least 5 financial institutions would have significantly increased their rural credit

portfolios (not less than $50 Million in total), would have the skills and systems in place, and would have invested the resources and capital necessary to serve this market.

- At least 70 credit officers in participating financial institutions would have completed a formal training program covering rural and agricultural lending.
- At least 2,000 potential borrowers in targeted areas and within targeted value chains were to receive BDS support and 30 BDS providers would have been trained and certified.

Table 2: Access to Rural Finance - Expected Outputs Indicators

Approved Indicators as per Indicator Tracking Table (ITT)	Measure	Actual to Date (09/2014)	Final Target
Value of agricultural and rural loans	Million USD	2.802	5
Loan borrowers	Number	96	120
Firms and farmer groups trained in credit	Number	199	160
Potential Rural Finance Facility borrowers' capacity reinforced in preparing loan application files	Number	283	750
Number of borrowers who accessed credits after receiving support in developing their loan applications	Number	96	100

Source: Burkina Faso Q20 ITT – Final Approved Version; September 2014; Adapted from MCC/MCA-BF.

Table 3: Additional Indicators as per Project Documentation-Loan Targets

Loan Targets	Measure	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Total number of loans from RFF (annually)	#	100	160	240	350	450
Total value of loans provided by year by the rural finance facility	USD (Million)	1	1.6	2.4	3.5	4.5

Loan Targets	Measure	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Increases in revenues of borrowers % (inflation adjusted and cumulative)	%	5%	10%	15%	20%	25%
Number of agribusinesses receiving loans (annually)	#	0	175	200	275	350

Table 4: Additional Indicators as per Project Documentation - PFI Capacity Building Targets

PFI Capacity Building Targets	Measure	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Number of Credit Officers trained per year	#	45	30			
Percent of Credit Officers trained receiving certification	#	35	25			

Table 5: Additional Indicators as per Project Documentation - BDS/Entrepreneurship Targets

BDS/Entrepreneurship Targets	Measure	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Number of BDS Providers trained	#	10	30	0	0	0
Number of agriculture-related businesses receiving BDS support services (annually)	#	100	250	400	550	700
Number of Entrepreneurship Graduates per year	#		80	80		

Sources for Tables 3-5: RFF M&E Document; Adapted from MCC/MCA-BF.

2.3. Link to ERR and Beneficiary Analysis

Cost-benefit analysis for the Agriculture Development Project was very limited, and neither the economic rate of return (ERR) nor beneficiary analysis were conducted specifically for the ARF activity.

3. LITERATURE REVIEW

Up to the mid-eighties, agriculture finance policy consisted primarily of channeling credit through state-owned development finance institutions. These efforts were mostly supply-driven and focused on lending rates and collateral requirements by commercial banks as key constraints to be addressed. Yaron (2000) explains that the premise behind this approach was that shortages existed because demand for credit among SME farmers was greater than supply thus creating monopoly power for those who offered credit. However, these institutions were created simply to channel funds, not to become self-sustaining credit facilities; they faced no competition, had limited accountability and thus lacked incentive to make strong collection efforts. The achievements under this approach have been quite modest, not least because it fails to acknowledge the multidimensional nature of the challenge faced by financial institutions in rural areas. Dale Adams, Douglas Graham and Robert Vogel of Ohio State University as well as J. D. Von Pischke of the World Bank have written extensively about the failure of these policies.

A significant paradigm shift took place in agricultural / rural finance subsequently.[10] The 1989 World Development Report embodied this new approach focusing more on the need to develop financial systems and build sustainable financial institutions. Schmidt and Kropp (1987) argue for instance that a policy of high interest rates could even improve access to finance. They advocate a financial system approach to rural finance, which is defined as the financial side of all economic process in rural areas. This includes financing, but also savings and the insurance of financial risks. J.D. Von Pischke (1991) talks in this respect of “finance at the frontier” and argues for a “market niche” approach. Desai and Mellow (2002) identify several elements contributing to the development of an effective and sustainable rural financial system such as: competition; diversification of the type of financial institutions; financial institutions with vertical organizations and high density of field-level offices; high level of access to finance in the area; and multiple functions of the financial institution to respond to different financial needs along the supply chain. Desai et al. (2002) subsequently argue that systems that meet these criteria are better able to realize rural growth with equity, financial viability and integration of rural financial markets, and economies of scale.

In recent years, the academic focus has been shifting away from rural financial institutions towards leveraging existing financial relationships along the agricultural value-chain. The institution-building approach led to policies based on the provision of incentives to commercial

[10] Rural finance is a technically a broader concept than agricultural finance as it focuses on the provision of financial services in rural areas, both for agricultural as well as non-agricultural activities.

banks to expand in rural areas and, in some fewer cases, on the creation of financial intermediaries in rural areas. While these policies significantly reduced the market distortions and waste of public resources of previous years, their actual achievements in terms of expanding access to finance in rural areas has been more modest than expected. Only a handful of institutions can be regarded today as successful providers of financial services to small farmers and it still remains to be seen whether their respective business model can be replicated on a broader scale.

Miller and Jones (2010) explain how a value chain approach allows transaction costs and risks of lending to be reduced by understanding the governance structure of the chain and by playing on actors' internal knowledge. Not only do these supply-chain actors have the required product and sector expertise to operate in rural markets, but their existing business relationship with farmers provide them with an information advantage that financial institutions can hardly match. Therefore, the authors argue that financial institutions' credit appraisal should go beyond the characteristics of the direct loan recipient and its individual creditworthiness to analyze the strength and competitiveness of the chain as a whole. Strong commercial relations work as a signal: banks know that large buyers need to work with reliable and efficient producers; while producers are considered more creditworthy if they have an assured market for their produce. Hence, value chain linkages, contracts and expected produce work as alternative collateral for producers and SMEs involved in the chain. The flows of funds across the chain are analyzed to identify financial needs and constraints as well as strengths and weaknesses faced by each value chain actor to find an effective entry point to channel the funds and enhance productivity and competitiveness of the chain.

Recent academic research has also increasingly focused on the design of specific financial instruments such as term finance, microfinance approach and insurance. Hollinger (2004) examines several case studies in which term loans, financial leases and equity finance were used and finds that the suitability of products depends on the local characteristics of demand and the institutional and legal framework. Term loans are the most common as they allow for flexibility in investment options and disbursement and repayment plans. Despite this flexibility, term loans still require fixed payment schedules that are difficult to maintain given the uncertainty associated with farming. Financial leasing is attractive as it eliminates collateral requirements but it suffers from high costs both in set up and in supervision. Equity finance through shareholders does not require fixed repayment schedules and reduces issues that arise from asymmetric information but it requires high transaction costs and is thus unsuitable for small investments.

Meyer (2011) stresses the need to better understand the demand for and use of agricultural credit to develop effective products, institutions, market infrastructure and policies. The author then discusses the use of "smart" or "market-friendly" subsidy approaches such as matching grants, credit guarantee funds, warehouse receipts, micro-insurance, etc. Hollinger (2011) describes an innovative approach that combines elements of micro-lending and conventional agricultural lending into a specialized loan package. These loans allow for disbursement and repayment schedules flexible around the seasonal nature of agriculture, such as grace periods, irregular payments or bullet repayments. They also include flexible collateral requirements in which a borrower could use land, farm equipment or even livestock. Cohen (2010) advocates more focus on financial education, among other things, as a way to ready the unbanked (people without access to conventional banking services) to enter the formal financial system.

Risk management solutions such as micro-insurance and weather-index-based insurance are also discussed in the literature. Alderman (2008) discusses various approaches used by governments and donors to protect farmers against a variety of agricultural risks. While a number of them are very innovative, the author concludes that they are largely untested. Meyer (2011) argues that weather-index insurance has the potential to reduce the administrative, adverse selection, and moral hazard issues of traditional insurance. Bundling insurance with loans and savings should be a logical step to reduce costs and speed adoption. Governments and donors should focus on long-term public goods investments, such as in weather-reporting stations and basic data collection and analysis, which are needed to create the conditions and infrastructure for robust insurance markets.

Finally, rigorous impact evaluations of rural finance programs are few in the literature. Yaron, Benjamin and Charitonenko (1998) discuss the inherent issues with evaluating the performance of rural financial intermediaries, as it is difficult to predict behavior of borrowers in the absence of the program. It is also extremely difficult to isolate the effect of the program from external factors. Their proposed method of evaluation is based on the success of the program in areas of outreach, as measured by an index that factors market penetration, demographics of clients and quality of services, and self-sustainability measured by an index of subsidy dependence.

The insights of this academic research will be reflected in the evaluation.

4. EVALUATION DESIGN

4.1. Policy Relevance of the Evaluation

Agriculture is a key sector for the Burkinabe economy. The vast majority of Burkina's population (about 80%) lives in rural areas and has agriculture, livestock and fisheries as main livelihoods. The production is still primarily for home consumption and the sector is characterized by low productivity, poor access to inputs and equipment, and very limited irrigation. Access to market is a constraint and transformation is dominated by artisanal and semi-industrial units. Besides cotton, the financial system serves agriculture only marginally: despite its contribution to GDP (33.8%), short-term and long term lending to agriculture reached respectively 4.2% and 0.6% of total lending in 2012.

Access to finance has been identified as a particular constraint and the Government of Burkina Faso addresses it in two main policy documents (detailed in Table 6): the Programme National du Secteur Rural (PNSR – National Program for the Rural Sector), and the **National Microfinance Strategy (m).** The PNSR provides the comprehensive framework for policy interventions in the rural sector in Burkina Faso. With regard to agricultural financing, the PNSR recognizes the need to involve the financial system to improve access to finance for the agricultural sector. However, agricultural finance is not identified as a priority. Also, the cotton sub-sector is excluded from PNSR since it is under the responsibility of the Ministry of Commerce. The NMFS's main objective is to promote the professionalization of the microfinance sector, product diversification and outreach expansion, with 46.5% of the budget devoted to this purpose. Nevertheless, the NMFS does not specifically target rural areas.

Table 6: Key Policy Documents for Agricultural Finance in Burkina Faso

Document	Description and Objectives
2011-2015 National Program for Rural Sector (PNSR)	• Main objectives are food security and nutrition, economic growth and poverty reduction • The Directorate General for Promotion of Rural Economy (DGPER) represents the Ministry of Agriculture and Food Security (MASA) at the level of the National Credit Council.
National Strategy for Microfinance (NMFS)	• Main objective: • Promotion of inclusive and sustainable access to finance to a large proportion of the population, including of financial products and services diversified and adapted to specific needs

To encourage private investment in the agricultural sector, the Burkinabe government is working on an **Agricultural Investment Code and Agricultural Orientation Act** and is considering the development of a **National Policy on Agricultural Risk** as well as measures to promote agricultural entrepreneurship. This is expected to help improve the perception of risks related to the agricultural sector, and thus encourage financial institutions to increase their investments in the sector.

The ARF activity aimed specifically at increasing investment financing for SMEs in the agriculture value chain by providing the funds on one side and technical assistance and training to multiple stakeholders on the other. Therefore, **the results of the present evaluation will provide lessons learnt on agricultural finance for investment that will enrich policy discussions on how to foster agricultural investments.**

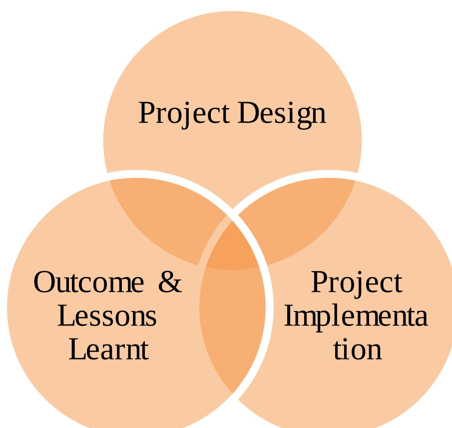
Also, from the perspective of MCC, access to finance in agriculture and rural areas is a common problem in Africa; therefore, lessons learnt from this evaluation can be used internally to improve project design and implementation in the future.

4.2. Evaluation Overview

The evaluation will analyze ARF's three areas of intervention (i.e. Rural Finance Facility Lending Fund, Technical Assistance to PFIs, Business Development Service provision to end beneficiaries) to understand:

a) The validity of the program logic and its assumptions (Project Design),
b) The degree to which planned activities were implemented (Project Implementation),
c) Outcome results and lessons learnt. These aspects will be analyzed across the three sub-activities.

Figure 5: Evaluation Framework



The evaluation of the Project Design will follow a **theory-based approach that examines the entire project logic**. That means examining along the causal chain from activities and inputs to outputs to outcomes to possible impacts to explore how and whether inputs led to the expected outputs and so forth. In doing so, the A2F team will analyze which components or which stages of the project work well, and which ones do not. The team will also evaluate the theory of change including the validity of its assumptions and hypotheses. This approach will help identify any weak links in the causal chain and inadequate design features that may have influenced project outcome and may have resulted in any unintended consequences.

From the Project Implementation perspective, the team will analyze and assess the processes for PFIs to access and on-lend RFF's funds, the quality of the training at the PFIs, BDS providers and end-beneficiaries levels, and the quality of project management including the reasons for implementation delays, what influenced the performance of different project participants during project implementation, how thorough implementation planning has been, etc. Based on the program logic, program indicators and expected results, as well as on the results of the previous evaluation components, the team will examine the project outcomes and will strive to identify key insights and lessons for future MCC projects.

The evaluation of project design will take the form of a **mixed-methods performance evaluation**. Available quantitative data consists predominantly of information on the terms of loans offered to beneficiaries such as amount, repayment schedule, interest rates, etc. A2F will request information on repayment rates from the PFIs as well as information on their agricultural portfolio. During the data collection effort, the team intends to collect quantitative information from beneficiaries on the size of their business (e.g. number of employees, turnover), level of indebtedness, etc. However A2F anticipates some difficulty in accessing the level of detail needed for the performance analysis from all of the PFIs. Limited access to bank data will limit the A2F's team ability to evaluate whether the level of lending to the agricultural sector, interest rates, default rate, etc. have changed as a result of the program. To compensate for this, A2F will also collect secondary information from sources such as the BCEAO (Central Bank of West African States) on bank interest rates and overall lending to the agricultural sector; qualitative information collected from PFIs, will also be used to cross-check and integrate the analysis.

Despite the long-term perspective of the program logic, it is not feasible to implement an impact evaluation mainly due to a lack of baseline data and control group. Also, for those beneficiaries that received funding under the program, loan repayment is still ongoing until 2018. As a result, the evaluation will not be able to measure the final impact of the project

4.3. Evaluation Questions

The evaluation questions are divided into three components as per evaluation framework and outlined in Table 7:

Table 7: Evaluation Questions

Evaluation Component	Research Questions

Evaluation Component	Research Questions
ARF Activity Design	• *Was a market assessments performed prior to the design of the project? If yes, were the results of this assessment taken into account in the project design? What were the results of the due diligence? What methods were used for the due diligence? How were these results incorporated into the design and how robust were they?* • *Were there other key constraints not addressed by the program that might have hindered its implementation?* • *What were the terms of participation in the program for PFIs/BDSs?* • *What incentives, if any, were built into the program to encourage bank participation in the Rural Finance Facility Lending Fund?* • *What was the structure of the Activity Management? Did this impose any undue burden on the PFIs to access the funds?*
Implementation	• *How well did the implementation adhere to the original design?* • *Were any changes made and how did they help/hinder the effectiveness of the implementation?* • *How did the quality of implementation of each component affect the success/non-success of the activity overall?* • *How useful, timely or effective were the different training components from the perspective of those being trained? To what extent did the stakeholders implement the new practices per training?* • *How well did the structure, management, timelines of the ARF activity function? Specifically how did the communications, administrative procedures and processes help or hinder the implementation?* • *What problems, if any, did PFIs/BDSs face in participating in the project? What problems, if any, did end-beneficiaries face in participating in the activity?*

Evaluation Component	Research Questions
Outcomes and Lessons Learnt	• *What lessons can be learned from Burkina's ARF project? What could have been done differently to overcome obstacles to achieving the desired results?* • *How did the offering of these types of loans affect the market? Have other banks/financial institutions begun to offer these products? • What has been the experience of beneficiaries with these financial products, BDSs and PFIs?* • *Did banks receive better or an increased number of applications for rural agricultural loans? Did they increase their portfolio in agricultural investments?* • *How long did PFIs actively participate in the RFF? If PFI participation ended prior to the closure of the RFF, why was this participation ended? • How (if at all) did PFIs change their practices for agriculture/rural lending? How (if at all) did the RFF change PFIs' risk perception of agricultural/rural lending?* • *Did the BDS providers increase their capacity on advising rural/agricultural businesses? • Did the end-beneficiaries increase their business management capacity?* • *Do the end-beneficiaries have (or perceive) better access to credit from the PFIs?* • *Do the end-beneficiaries continue to use BDS?*

4.4. Evaluation Methodology Design

During the evaluation design preparation phase, the A2F team was able to talk to several MCC staff involved in the Compact design and implementation, to obtain several project documents and carry out a scoping mission in Burkina Faso in November 2014. During this mission, the team was able to meet with a relevant number of local stakeholders, namely,

- MCA-BF available staff of the Agricultural Development Project (APD),
- ADP ARF officers,
- MCA-BF M&E department,
- MCA-BF Environmental department,
- AD10 local consultants,
- PMC-PDA,
- PFIs (Coris Bank, Banque Atlantique, RCPB) management and branch managers in one area of intervention (Bobo Dioulasso),
- A sample of 9 BDS providers out of 33 participating to the ARF,
- Fiduciary Bank (Ecobank) and
- Fiduciary Agent (GFA Consulting)

As a result of the preparation phase, the A2F team has identified four different categories of beneficiaries. Table 8 below links each category of beneficiary to the project component they were involved in and the proposed data collection methodology.

Table 8: Types of Project Beneficiaries and related data collection methodology

Beneficiaries	Project activity	Methodology
Participating Financial Institutions and their staff	Access to subsidized funds (3%) to on-lend at market rate Training on ARF requirements (e.g. environmental) and rural/agricultural finance lending technology	• Semi-structured interviews of PFI management and loan officers
Business Development Services Providers	Training on requirements of participation in the program, and on how to address the needs of rural/agricultural entrepreneurs.	• Semi-structured interviews and focus groups of BDS providers and their staff who received training.
Business Development Services Recipients	Received the following services by BDS • diagnostic and action plans, • preparation of loan applications, • training/advice on business management	• Survey/Structured interviews • Focus Groups • Case studies
Loan Recipients	Received a loan through the RFF mechanism	• Survey/Structured interviews • Focus Groups • Case studies

Given the potential overlap between the BDS and Loan recipient and the similarity of information to be collected, **the evaluation will use the same set of tools for recruitment and interviews for both types of end-beneficiaries**. The tools are designed so that in cases where there is no overlap, respondents will only be asked questions relevant to the type of service/benefit they received.

In addition to the above-mentioned project beneficiaries, the A2F team has identified **MCC** and **MCA-BF project management staff as well as the AD10 Consultant as key informants** with whom the A2F team will conduct semi-structured interviews during the data collection phase of the evaluation.

Non-Participating Financial Institutions and Non-Beneficiaries will also be interviewed to understand any factors that may have prevented their participation in the ARF Activity. A2F team will conduct semi-structured interviews during the data collection phase of the evaluation.

4.5. Study Sample

The application of a statistical sampling methodology will be limited due to the lack of a comprehensive database with end-beneficiaries' characteristics. Currently the only available characteristics on end-beneficiaries are: region, name and whether they are loan/BDS recipients. Due to these limitations, the sampling for these two groups will be based predominantly on their region. However, there are very few beneficiaries in two out of four regions (e.g. less than five beneficiaries received loans in Cascades while only two beneficiaries received training in Sud-Ouest), therefore, to obtain sufficient representation of that area, A2F will attempt to interview all beneficiaries in that area.

One of the issues encountered by the A2F team in the design of the evaluation and sampling methodology has been conflicting information on the final number of beneficiaries. While documentation received MCC (ITT and the ToRs for the evaluation) indicates a total number of 96 end-loan beneficiaries at the end of the end of the ARF activity, two databases of beneficiaries (dated October and November 2013 respectively) received from the Credit Officer at MCA indicate a total number of 61 and 68 end-loan beneficiaries. A2F has elected to use the lower number of 68 beneficiaries as this contains the most complete information on beneficiaries (e.g. name, loan terms, contact information, etc.) and MCA/MCC communications indicate that these loans were approved. This information was also cross-checked with supporting paperwork submitted by PFIs with their disbursement requests. One of the databases from MCA also indicates that while 17 loan disbursement requests were approved, they were not disbursed. A2F will investigate the underlying reason for the cancellation of these loans.

Similarly, with the number of BDS recipients, communications from MCA to MCC indicated a total of 283. However, communications between MCC and MCA indicate that AD-10 approved 283 BDS, paid for 77 services and transferred the remaining 206 to MCA, which approved 158 and rejected 58. This brings the total number of BDS recipients to 235. However, the database received from MCA contains only 170 BDS recipients, of which 158 have contact information.

For the different target groups, the following sampling methodologies will be applied:

1. **AD10 Consultant staff**: due to the project's early termination, staff from the AD-10 consultant had re-located. A2F will contact remaining local staff as well as re-attempt to contact re-located staff for in-person or phone/skype semi-structured interviews.
2. **MCA-BF Project Management Staff**: due to the MCA-BF's closure and limited access to staff, A2F will strive to interview at least five former MCA-BF staff using semi-structured interviews.
3. **MCC Staff**: A2F will strive to interview at least five former MCC staff involved in the project using semi-structured interviews.
4. **Participating Financial Institutions and their staff:** Only three financial institutions participated in the ARF activity. A2F will interview for each PFI any available management and at least three loan officers who received training using semi-structured interviews.
5. **Non-Participating Financial Institutions**: A2F will seek to interview the management

of at least three financial institutions in Burkina Faso that did not participate in the Access to Rural Finance Activity.

6. **Business Development Services Providers:** 33 BDS providers participated in the ARF activity. However, due to limited availability, A2F will interview the management and at least one field consultant for 10 BDS providers using semi-structured interviews.
7. **Business Development Services Recipients: A** combination of a survey, structured interviews and focus groups will be used to collect information from BDS recipients. A sample of 80 BDS recipients will be surveyed out of 158 in the current database; three groups of 5-10 BDS beneficiaries will be interviewed in a focus group setting (two all-male and one all-female) in Bobo-Dioulasso and Ouagadougou. For regions with a low number of participants, over-sampling will be used to ensure there is sufficient representation of these regions; for regions with larger groups, the sampling will be random. Similarly, oversampling will be used to ensure that a sufficient number of women are interviewed.
8. **Loan Recipients:** A survey as well as a combination of structured interviews and focus groups will be used to collect information from this group. Specifically a sample of 30 loan recipients out of 68 in the current database will be interviewed using structured interviews; three groups of 5-10 loan recipients will be interviewed in a focus group setting (two all-male and one all-female) in Bobo-Dioulasso and Ouagadougou. For regions with a low number of participants, over-sampling will be used to ensure that there is a sufficient representation of these regions; for regions with larger groups, the sampling will be random. Similarly, oversampling will be used to ensure that a sufficient number of women are interviewed. Finally, five loan recipients will be interviewed for the **case studies** using semi-structured interviews. The selection will be non-random as they will be selected to get a representative view of different parts of the agricultural value chain, loan size, etc.

For both loan and BDS recipients, the team will conduct a separate focus group to gather information on whether women and men had any differential experiences in their participation in this activity. In total, A2F will conduct six focus groups of end beneficiaries, three focus groups for each type of beneficiary.

9. **Non-Beneficiaries**: Many BDS recipients were unsuccessful loan applicants; as such A2F will seek to understand their experience with the loan application process, the reasons for their rejection, etc.. In addition to BDS recipients who were unsuccessful in their loan application, A2F will interview 20 non-beneficiaries, who did not participate in the program. To identify these non-beneficiaries, A2F will use snowball sampling, e.g. recruiting non-participants from among loan and BDS recipients' acquaintances; BDS providers will also be solicited for lists of individuals who were recruited but did not participate in the project.

4.6. Analysis Plan

Once the data collection is completed, the next step will be the **analysis of the data and the interpretation of the results**. Data from the end-beneficiary surveys will be coded and loaded into STATA. The first step of the analysis will be to check for consistency of answers and information. Once these checks have been fulfilled, all personal identifying information will be removed. The analysis of this data will be simple and will consist predominantly of output aggregate responses from the respondents. Information obtained from banks' databases on loan terms, repayment/default rates and (possibly) their agricultural portfolio will be used for a performance analaysis.

For the qualitative data collected through semi-structured interviews of PFI management and staff, BDS and project management staff and focus-group discussions of end-beneficiaries will be analyzed using a thematic approach for each group. This will allow the team to identify the main topics arising from discussions with the respondent. This analysis will be performed using TAMS (Text Analysis Markup Software) or QDA Miner Lite software.

The document review will be mostly based on the team's knowledge of the agricultural assessment. In this case, the team members will review and assess the content of training materials, processes outlined in project documents and forms, based on their experience in this field.

4.7. Timeframe of Exposure

ARF activities started in mid-2011 with the signature of agreement with RCPB, the first financial institution to participate in the program, and ended in mid-2013 with ARF termination. However, the provision of BDS started only at the beginning of 2013. Therefore, the target beneficiaries have had the opportunity to access term financing for investment for about 2 years, while they could access BDS only for about 6 months.

Also, for those beneficiaries that received funding under the program, loan repayment is still ongoing until 2018. As a result, the evaluation will not be able to measure the final impact of the project.

4.8. Limitations and Challenges

During a first scoping trip, the A2F team identified several issues that could affect the evaluation design and future data collection efforts. Table 9 below details each of these issues and their implications for the evaluation:

Table 9: Identified limitations and related methodological implications

Issue identified by the A2F team	Implications for the methodology
Poor documentation on the Access to Finance Activity by MCA-BF While A2F was able to obtain a number of documents of projects from MCA-BF, these contained incomplete as well as conflicting information on the number of financial end-beneficiaries.	A2F will attempt to remedy this issue by collecting information from various sources in order to cross-check and build a database of end-beneficiaries, namely: • MCC • MCA-BF's Fiduciary Agent (who approved & reviewed supporting documentation) for payment to BDS and PFIs • BDS providers • Participating Financial Institutions
Inability to access consultant AD-10 due to termination of program As the Access to Finance Activity was terminated early, the consultant AD-10 and its staff were no longer in Burkina Faso. Attempts to contact them via email were unsuccessful. A2F will attempt to re-contact AD-10.	As the implementer of the project, the consultant AD-10 had the most knowledge and data on end-beneficiaries. Inability to access them resulted in A2F receiving a second-hand overview on the project. In the event where A2F is unable to reach AD-10, A2F may need to rely more heavily on the expert judgment of its team members.
MCA-BF closure and unavailability of staff MCA-BF was in the process of closing and archiving its records during the last two weeks of November, when A2F was conducting its first scoping mission. Furthermore, many of the MCA-BF staff had already left the organization and were unavailable for consultations.	A2F anticipates that the MCA-BF closure will likely result in even more limited availability of project management staff during the data collection efforts phase of the evaluation.

Issue identified by the A2F team	Implications for the methodology
Limited Access to bank data During our consultations with the project stakeholders, the A2F team learned that PFIs were reluctant to share data on their lending operations with MCA-BF as part of the project.	A2F anticipates some difficulty in accessing the level of detail on PFIs' agricultural loan portfolio needed for the performance analysis from all of the PFIs. Limited access to bank data will limit the A2F's team ability to evaluate whether the level lending to the agricultural sector, interest rates, default rate, etc. have changed as a result of the program. If A2F is unable to obtain data from the banks, we propose to rely on secondary data, mainly from the BCEAO and qualitative information from PFI management and loan officers.
Loan Repayments still ongoing Repayments will be completed in 2018, so technically the final project outcome cannot be assessed at this stage.	A2F will however do its best effort to extrapolate the final outcome based on current loan performance data.

A2F initially proposed to use a combination of focus groups, semi-structured interviews and surveys to collect quantitative and qualitative data, in order to gain more in-depth feedback. While this mix-method approach is still valid, given the potential difficulties in collecting some of the quantitative data outlined above, **the A2F team proposes to rely more heavily on qualitative data and expert judgment/content review**.

5. DATA SOURCES AND OUTCOME DEFINITIONS

5.1. Data Collection Plans

Following the approval of the evaluation design and evaluation materials from MCC and MCA-BF and the required IRB clearance, the data collection phase will take place during the month of February 2015 in the four regions targeted by the ARF activity.

5.2. Data Needs

5.2.1. Data Sources for Quantitative Analysis

Main sources of quantitative data will be the available project's and banks' databases, as well as the data collected through the survey of end-beneficiaries. As mentioned above, while A2F anticipates that PFIs will share information on ARF beneficiaries (such as loan terms, repayment rates, etc.), it is expected that the availability of quantitative data on PFIs' overall agricultural portfolio will be limited and the evaluators may have to rely on qualitative and secondary data to measure any effect of the activity on PFIs' agricultural lending. In particular, quantitative data available on the BCEAO website will be used to complement the information available on banks' engagement in agriculture. Table 10 below outlines the different sources of quantitative data and the related indicators.

Table 10: Sources of Quantitative Data and Indicators

Sources for Quantitative Data	Indicators
ARF activity documentation including PFI disbursement requests	• Number of beneficiaries, loan amounts, terms of loan i.e. interest rates, loan period, repayment periodicity, collateral requirements
Interviews of BDS providers	• Number of BDS-recipients; location of BDS recipients; fees; services received

Sources for Quantitative Data	Indicators
PFI Interviews and Data Request to PFIs	• On beneficiaries: loan amount, interest rate, loan period, repayment periodicity, repayment performance, collateral requirements • *Agricultural Portfolio* (*potential*): size of portfolio, number of loans to the sector, terms of loans to the sector, etc.
Beneficiary interviews	• Loan amount, interest rate, loan period, repayment periodicity, repayment rate, level of indebtedness, size of business, collateral requirements

5.2.2. Data Sources for Qualitative Analysis

Main sources for qualitative data will be the project documents and the results of qualitative interviews with project stakeholders and participants as well as focus groups and case studies.

The following design matrix (Table 11) summarizes the data collection method and source per each evaluation question:

Table 11: Evaluation Design Matrix

Evaluation Component	Research Questions	Data Collection Method	Data Collection Instrument	Data Sources
ARF Activity Design	• What were the findings of the due diligence? What methods were used for the due diligence? How robust were these findings and how were they incorporated into the design and?	• Desk Review	• Project documents	• Extract from due diligence study and preliminary field missions reports
ARF Activity Design	• Were there other key constraints not addressed by the program that might have hindered its implementation?	• Desk Review • Semi-structured interviews of MCC and MCA project management/PFIs/non-PFIs/BDS providers • Structured interviews and focus groups of beneficiaries and semi-structured interview of non-beneficiaries	• Project documents • Project management team/BDS providers/PFIs/non-PFIs interview protocol • End Beneficiaries survey and focus group protocol • Non-Beneficiary interview protocol	• Review of project documentation • Interviews with Project Management Team/PFIs/non-PFIs/ BDS • Survey and focus groups of End beneficiaries • Interviews of non-beneficiaries
ARF Activity Design	• What were the terms of participation in the program for PFIs/BDSs?	• Desk Review	• Project documents	• Review of procedures manuals for PFIs and BDSs

Evaluation Component	Research Questions	Data Collection Method	Data Collection Instrument	Data Sources
ARF Activity Design	• What incentives, if any, were built into the program to encourage bank participation in the Rural Finance Facility Lending Fund?	• Desk Review • Semi-structured interviews of PFIs and non-PFIs	• Project documents • PFIs and non-PFIs interview protocol	• Interviews with PFIs and non-PFIs; • Review of procedures manuals for PFIs and of PFI/MCA-BF agreements
ARF Activity Design	• What was the structure of the Project Management? Did this impose any undue burden on the PFIs to access the funds?	• Desk Review • Semi-structured interviews of PFIs • Semi-structured interviews with MCA-BF and MCC staff	• Project documents • PFIs interview protocol • MCA-BF and MCC interview protocol	• Review of PFI & BDS agreements • Review of procedures manuals for PFIs and BDS • Interviews with PFIs and MCA-BF and MCC project management
Implementation	• How well did the implementation adhere to the original design?	• Desk Review • Semi-structured interviews of MCA-BF and MCC staff	• Project documents • MCA-BF and MCC Project Management team interview protocol	• Review of AD10 deliverables, project documentation & Mid-term evaluation; • Interviews with MCA-BF and MCC Project Management Staff

Evaluation Component	Research Questions	Data Collection Method	Data Collection Instrument	Data Sources
Implementation	• Were any changes made and did they help/hinder the effectiveness of the implementation?	• Desk Review • Semi-structured interviews with MCC and MCA-BF staff/BDS providers/PFIs	• Project documents • Project management team/BDS providers/PFIs interview protocol	• Review of project documents; • Interviews with Project Management Staff, PFIs and BDS providers
Implementation	• How did the quality of implementation of each component affect the success/non-success of the project overall?	• Desk Review • Semi-structured interviews with MCA-BF and MCC staff	• Project documents • MCA-BF and MCC Project management team interview protocol	• Review of project documents; • Interviews with MCC and MCA-BF Project Management Staff
Implementation	• How useful, timely or effective were the different training components from the perspective of those being trained? To what extent did the stakeholders implement the new practices per training?	• Desk Review • Semi-structured interviews with MCC, MCA-BF staff/BDS providers/PFIs • Structured interviews and focus group with End Beneficiaries	• Project documents • Project management team/BDS providers/PFIs interview protocol • End Beneficiaries survey protocol • Focus groups of End Beneficiaries	• Review of training materials and manuals; • Interviews with PFIs/BDS • Survey of End Beneficiaries • Focus Group with End Beneficiaries

Evaluation Component	Research Questions	Data Collection Method	Data Collection Instrument	Data Sources
Implementation	• How well did the structure, management, timelines of the ARF activity function?	• Desk Review • Semi-structured interviews with MCC and MCA-BF staff/BDS providers/PFIs • Structured interviews with End Beneficiaries • Focus Group with End Beneficiaries	• Project documents • Project management team/BDS providers/PFIs interview protocol • End Beneficiaries survey protocol • Focus Group with End Beneficiaries	• Loan application files, • Interviews with Project Management Team/PFIs/BDS providers • Survey of end beneficiaries • Focus Group with End Beneficiaries
Implementation	• What problems, if any, did PFIs/BDSs face in participating in the project?	• Desk Review • Semi-structured interviews with MCA-BF and MCC staff/BDS providers/PFIs	• Project documents • Project management team/BDS providers/PFIs interview protocol	• Available information on BDS, • Interviews with Project Management Team/PFIs/BDS'
Outcomes and Lessons Learnt	• What lessons can be learned from Burkina's ARF project? What could have been done differently to overcome obstacles to achieving the desired results?	• Desk Review • Semi-structured interviews with MCC and MCA-BF staff/BDS providers/PFIs • Structured Interviews and Focus groups with End Beneficiaries	• Project documents • Project management team/BDS providers/PFIs interview protocol • Qualitative analysis • End Beneficiaries survey protocol • Focus Group with End Beneficiaries	• Project reports • Interviews with Project Management Team/PFIs/BDS providers • Survey of End Beneficiaries • Focus Group with End Beneficiaries

Evaluation Component	Research Questions	Data Collection Method	Data Collection Instrument	Data Sources
Outcomes and Lessons Learnt	• How did the offering of these types of loans affect the market? Have other banks/financial institutions begun to offer these products?	• Semi-structured interviews with PFIs and non-PFIs • Focus groups with end beneficiaries • Database review	• PFIs and non-PFIs interview protocol • Quantitative analysis • Focus group with end beneficiaries	• Interviews with PFIs and non-PFIs; • Analysis of Bank data (primary & secondary) • Focus groups with end beneficiaries
Outcomes and Lessons Learnt	• What has been the experience of beneficiaries with these financial products, the PFIS and BDS?	• Structured interviews with End Beneficiaries • Focus groups with End Beneficiaries	• End Beneficiaries survey protocol • Focus Groups with End Beneficiaries	• Survey of end beneficiaries • Focus groups with beneficiaries
Outcomes and Lessons Learnt	• Did banks receive better or an increased number of applications for rural agricultural loans? Did hey increase their portfolio in agricultural investments?	• Semi-structured interviews with PFIs	• PFIs interview protocol	• Interviews with PFIs

Evaluation Component	Research Questions	Data Collection Method	Data Collection Instrument	Data Sources
Outcomes and Lessons Learnt	• How long did PFIs actively participate in the RFF? If PFI participation ended prior to the closure of the RFF, why was this participation ended?	• Desk Review • Semi-structured interviews with PFIs	• Project documents • PFIs interview protocol	• Review of project documents • Interviews with PFIs
Outcomes and Lessons Learnt	• How (if at all) did PFIs change their practices for agriculture/rural lending?	• Semi-structured interviews with PFIs • Database review	• PFIs interview protocol • Quantitative analysis	• Interviews with PFIs • Analysis of bank data (primary & bank data)
Outcomes and Lessons Learnt	• Did the BDS providers increase their capacity on advising rural/agricultural businesses?	• Semi-structured interviews with BDS providers • Structured interviews with BDS recipients • Focus groups with BDS recipients	• BDS providers interview protocol • End Beneficiaries survey protocol • Focus group with BDS recipients	• Interviews with BDS providers • Survey of BDS recipients • Focus Group with BDS recipients
Outcomes and Lessons Learnt	• Did the end-beneficiaries increase their business management capacity? Do the end-beneficiaries have (or perceive) better access to credit?	• Semi-structured interviews with BDS providers • Survey of End Beneficiaries • Focus groups with End Beneficiaries	• BDS providers interview protocol • End Beneficiaries survey protocol • Focus group with End Beneficiaries	• Interviews with BDS providers • Survey of End Beneficiaries • Focus groups with End Beneficiaries

6. ADMINISTRATIVE

6.1. Summary of IRB Requirements

The evaluation design and related protocol will adequately address possible risks to participants including psychosocial stress and related risks. The study is expected to involve only **minimal risks** for the research participants as per HHS definition:

> *"The probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests." (45 CFR 46.102(i))*

The selection of the participants will respect the **principle of equity** since participants will be randomly selected among project beneficiaries based on the regional distribution. By its nature, the study will not involve participants belonging to vulnerable categories.

The study procedures will fulfill the principles of **voluntary participation** and **informed consent**. Prior to participating in the survey, informants will be given sufficient information to decide whether they wish to participate in the survey/focus groups/interviews. It will include a description of reasonably foreseeable risks and benefits expected from the research, and a statement clarifying that participation is voluntary and may be discontinued at any time without penalty. The recruitment text and the context in which the recruitment takes place will be reviewed and approved by the IRB. To recruit survey participants, A2F will conduct calls of potential end-beneficiaries in order to obtain their consent to the interview. Bank management and branch staff, BDS providers and project management staff will all be contacted via email prior to the interview.

All materials will be translated into French by A2F Consulting staff, and interviews will be conducted in French. Interviewees who cannot communicate in French will be interviewed in the local language Dyula, spoken by two local A2F staff who are both native speakers of Dyula and will translate the questions on the spot if need be. They will be accompanied as needed by a translator to assist with interviews in Moré.

The study will ensure that the confidentiality of information obtained from or about human participants is maintained. The A2F team will carry out a **data anonymization**[11] exercise (detailed in the next section), as well as ensure that the data are stored in a secured server with limited access to key project personnel. Furthermore, personal identifying information will be kept separate from the data.

A2F will submit both anonymized and non-anonymized datasets to MCC, for public and internal use respectively.

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[11] Data anonymization is the process of encrypting and/or removing personally identifiable information from data sets so that the people whom the data describe remain anonymous.

6.2. Preparing Data Files for Access, Privacy and Documentation

In addition to the original research question for which they were collected, sensitive data often have other important legitimate uses. For example, researchers might be interested in surveys from developing countries for policy research. While these additional uses of data are important and should be supported, the privacy of individuals to whom the data are related should be guaranteed. Data anonymization helps address the competing demands of transparency for the data and the protection of privacy for individuals and is a key step in preparing data for secondary use.

The first step of the data anonymization process involves assessing the risk of re-identification, which is that a statistical unit is identified and the values of sensitive variables are uncovered. Disclosure risk can be affected by:

1. The presence of identifying variables in the dataset
2. The potential value of re-identification: for example, in the case of business data, re-identification can afford financial gains to a potential intruder.
3. The cost of re-identification: the higher the level of effort and cost involved in re-identification, the lower the incentive for an intruder.

Thus, it is important to define a disclosure scenario as a first step to the anonymization process, which can be classified as follows:

1. Internal information: the intruder (i.e. the person or group attempting re-identification) has personal knowledge of a statistical observation(s), which (s)he can use in re-identifying survey respondents.
2. External information: the intruder can link records from the released dataset with records from another dataset, which contains direct identifiers.

6.2.1. Risk Mitigation

The next step in the process of data anonymization consists of applying risk mitigation strategies. Several tools are available to minimize the risk of re-identification in the data. In most cases, a combination of these different methods will be used to minimize disclosure risk. In order to maintain the dataset for internal as well as external use, data anonymization processes should be conducted in parallel with the original data.

The data collected from the survey of end-beneficiaries will use the following set of tools to reduce the existence of individuals with unique or rare identifiers in the data:

a) **The removal of direct identifiers**: direct identifiers are variables such as names, addresses, or identity card numbers. They directly identify a respondent but are not necessary for statistical or research purposes and will therefore be removed from the published dataset.
b) **Global recoding**: this consists of aggregating the values of a variable into pre-defined groups (such as recoding age into five-year age groups). This method can be used for continuous or discrete numerical variables. In the case of categorical variables, the global recoding method collapses similar or adjacent categories.
c) **Top and bottom coding:** this is a type of global recoding applied to numerical or

ordinal categorical variables. As the highest and lowest values of a variable can be rare and therefore identifiable, top and bottom coding at a particular threshold obscures unique values while leaving other values intact.

d) **Removing records:** this method can be used when other protection techniques are insufficient to prevent identification. For example, an individual might be the only one involved in a particular profession in an area. In such cases, it is best to remove this particular instance rather than removing the identifying variable from the dataset. However, as this method can have significant impact on the statistical properties of the data, it will be used infrequently.

6.2.2. Quality Assurance.

a. Assessing Information Loss

During the process of data anonymization, identifying information is removed from data so as to protect the privacy of survey/research participants, the groups and/or communities that are being studied. During this process, it is also important to keep the user perspective in mind. This is essential if the released file is to meet researchers' requirements. Thus, the next step in the data anonymization process will be to evaluate the information loss caused by the risk mitigation methods used on a dataset, i.e. assess how different the new (modified) data are from the original data. A dataset can be estimated to have little information loss if the structure of the new (modified) data is similar to the structure of the original data. This ensures that the new (modified) data are still analytically valid.

b. Disclosure Risk

The assessment of the quality of the data should not be limited to information loss, the risk of disclosure should also be measured. Disclosure risk is defined here as the risk of re-identification. These measures can be classified as (i) individual measures which measure the risk per record i.e. the risk of correctly re-identifying one observation (ii) global measures which measure the risk for an entire file, i.e. the expected number of correct re-identifications.

Distance-based record linkage will be used to assess disclosure risk and assumes an intruder has an external dataset that they are attempting to match to the new (modified) dataset. This is based on a re-identification experiment where each observation in the new (modified) data file is matched to the corresponding observation in the original file as well as to the closest observation. The level of risk is defined here as the proportion of records correctly matched using this method.

Once the information loss and disclosure risk are determined to be at a sufficiently low and acceptable level, the new (modified) data can then be released to the public.

6.3. Dissemination Plan

Workshops in Ouagadougou, Burkina Faso and Washington, DC will be held to present the results of the evaluation and receive final inputs and comments. A field visit of two weeks in Ouagadougou is planned in July 2015 to ensure extensive discussions with all relevant stakeholders that could leverage the lessons learnt from the evaluation such as government representatives, APD, interested individual financial institutions and their associations, BDS providers, business associations etc.

The final report will be submitted to MCC and APD prior to local dissemination activities in Burkina Faso. Inputs collected during local dissemination activities will be integrated in the evaluation results before the presentation in Washington DC to MCC and other relevant stakeholders. The final high-quality version to be published will then be submitted with all related documents (e.g. databases, evaluation protocols, etc.)

6.4. Evaluation Team Roles and Responsibilities

Table 12 provides an overview of the evaluation team with respective roles and responsibilities in the study. Individual bios are provided below.

Table 12: Overview of Evaluation Team

Name of Staff	Role	Responsibility
Modibo K. Camara	Team Leader / Senior Analyst / Evaluation Specialist / Agricultural Finance Specialist	Evaluation coordination and quality control
Marie Ellen Ehounou	Senior Analyst / Evaluation Specialist /Gender Specialist	Assessment of the training component (BDS services) and of the end-beneficiaries survey.
Sonia Pietosi	Senior Analyst / Financial and Credit Specialist	Assessment of the ARF financial component
Kalilou Cissé	Rural Finance / Data Collection Specialist	Quantitative and qualitative data collection/ fluent in Dyula.
Aboubacar Sangaré	Rural Finance / Data Collection Specialist	Quantitative and qualitative data collection/ fluent in Dyula.

Dr. Modibo K. CAMARA

Dr. Camara has over 20 years of experience working on financial sector development issues, including nine years at the World Bank Group. He is a recognized specialist in access to finance issues in the developing world and has hands-on experience in microfinance and SME finance in Latin America, Eastern Europe, Asia and Africa. Amongst other credentials, Dr. Camara has led multiple advisory teams focused on creating financial sector strategies and assessments of the financial sectors. He also brings extensive experience on due diligences, including an in-depth understanding in institution building and turn-around cases. Dr. Camara has also experience in rural and agricultural finance and has recently led the A2F teams that conducted two large regional studies on agricultural finance ion Africa on behalf of GIZ and FAO. Prior to A2F Consulting, which he founded in 2007, and the World Bank Group, Dr. Camara worked at Gemini Consulting, and IPC GmbH/ProCredit. He holds a Doctorate Degree in

Financial Economics, and speaks English, French, German, Dyula, Spanish, Portuguese and intermediate Russian. He is a US citizen.

Ms. Marie-Ellen EHOUNOU

Ms. Ehounou is an economist and gender specialist with over 5 years of experience. She joined A2F Consulting as a full-time staff in March 2014. Recently, Ms. Ehounou was in charge of the data analysis for the SACCO sector study conducted in Kenya on behalf of FSD. She is also managing the data analysis component of a mobile banking project in Cote d'Ivoire that aims at understanding the reasons for clients' inactivity. She also heavily contributed to the evaluation methodology design. For her previous employer, DevTech, she worked on various projects including USAID's Economic Analysis and Data Services, Office of Gender Equality and Women's Empowerment (GenDev) measuring Gender Integration projects. She was responsible for coordinating, co-leading and assembling materials for trainings for USAID staff on the use of development statistics. She also worked as a consultant for the International Food Policy Research Institute on a "Gender Mapping Project" and as a research assistant for the Population Council. She holds a Masters degree in Economics with a focus on Gender and International development from American University. She is an American citizen and speaks fluent English, French, and proficient German, as well as conversational Arabic.

Ms. Sonia Pietosi

Ms. Pietosi is a Senior Consultant specializing on access to finance issues in developing countries, including microfinance, gender and rural/agricultural finance. Since joining A2F Consulting, she has worked on the evaluation of the African Development Bank's regional project to support "Growth-Oriented Women Entrepreneurs". This assignment involves intensive consultations with policy makers, financial institutions and women entrepreneurs in the two pilot countries, Kenya and Cameroon. Ms. Pietosi also co-led the field research in Ghana, Morocco and Burkina Faso for the GIZ / MFW4A regional study on policy coordination in agricultural finance and, in the same countries, for the FAO regional study on agribusiness investment promotion in Africa. More recently she was the project manager of an analysis of the SACCO sector in Kenya conducted by A2F on behalf of FSD Kenya. Prior to A2F, Ms. Pietosi worked in Madagascar at AccèsBanque managed by LFS Financial Systems, where she assisted loan officers both in the micro business and agriculture departments. Ms. Pietosi holds a Masters in Economics and Microfinance. She is Italian and U.S. resident, and speaks Italian, English, French and Spanish.

Mr. Kalilou CISSE

Mr. Cisse has four years of experience as a finance, accounting, and microfinance specialist. Prior to joining A2F Consulting, Mr. Cisse worked with the Malian Directorate of the National Treasury and Public Accounts where his main duties included managing accounts between the national treasury and other institutions, and performing audits of treasury activities. Mr. Cisse's consulting activities encompass credit operations at PEARL Microfinance Uganda, including conducting client appraisals and credit audits. He was formally educated in Business and Management at the Faculty of

Economics and Management Science, FSEG Bamako. A native of Mali, Mr. Cisse is fluent in French, English, and Dyula.

Mr. Aboubacar SANGARE

Mr. Sangare has four years of experience as a finance, accounting, and microfinance specialist. Mr. Sangare's consulting activities encompass credit operations at Nyogondeme Soba Microfinance in Mali, and PEARL Microfinance Uganda. His experience also includes client appraisals and credit audits and portfolio management. He holds an accounting certificate from the Center for Engineering and Entrepreneurship and Crafts (CITEM) in Mali. A native of Mali, Mr. Sangare is fluent in French, English, and Dyula.

6.5. Evaluation Timeline

Evaluation Timeframe	Oct-14		Nov-14				Dec-14				Jan-15				Feb-15				Mar-15				Apr-15				May-15					Jun-15				Jul-15					Aug-15				Sept-15	
	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10	w1	w2	w3	w4	w5	w6	w7	w4	w8	w9	w10	w11	w12	w13	w14	w15	w16	w17	w18	w19	w20	w21	w22	w23	w24	w25	w26	w27	w28	w29	w30	w31	w32	w33	w34	w35
Phase 1: Inception Period																																														
Review Project Documents																																														
Meetings with MCC and local stakeholders																																														
Inception Meeting																																														
Evaluation design preparation																																														
Draft Evaluation Design Report																																														
Final work plan and evaluation design report (D1)																																														
Evaluation Materials Preparation																																														
Draft Evaluation Material																																														
Final Evaluation Material (D2)																																														
Review Process/IRB approval																																														
Phase 2: Implementation Period																																														
Field Data collection																																														
Data cleaning, analysis and interpretation																																														
Evaluation Report Preparation																																														
Presentation of Draft Final Report and Findings to MCC																																														
Review MCC																																														
Draft Evaluation Report for local stakeholders review and related presentation to local stakeholders (D3)																																														
Phase 3: Review and DisseminationPeriod																																														
Review Process Local Stakeholders																																														
Local Stakeholder presentation																																														
Public Dissemination Efforts/Presentation																																														
Revised evaluation report, incorporating local stakeholders' comments for MCC review and approval (D4)																																														
Review MCC																																														
Final Approval evaluation report incorporating MCC comments (D5)																																														
Final Datasets and Metadata (D6)																																														

6.6. Reporting Schedule

The table below outlines the deliverable schedule for the evaluation.

Deliverables	Dates
Final work plan and evaluation design report (D1)	February 20, 2015
Final Evaluation Material (D2)	March 23, 2015
Draft Evaluation Report for local stakeholders review and related presentation to local stakeholders (D3)	June 26, 2015
Revised evaluation report, incorporating local stakeholders' comments for MCC review and approval (D4)	July 31, 2015
Final Approved evaluation report incorporating MCC comments (D5)	September 10, 2015
Final Datasets and Metadata (D6)	September 10, 2015

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