The Microfinance in Agriculture of Selected Asian Countries: Updates, Scenarios, Conditions, Challenges, Opportunities and Future Directions

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Preface

The growing international concern on global finance particularly on rural and agricultural development posts a lot of interest among key players and stakeholders in the sector. Specifically, microfinance in agriculture is expanding to greater heights as more individuals and institutions realize its importance in development. Needless to say, people need it to survive to make their activities more productive and profitable. Based on this, several emerging products are developed with accompanying services which necessitate proper delivery in timely and appropriate manner.

The IFAD-APRACA FinServAccess Project commissioned seven Asian country researchers to determine the state of microfinance supportive to the country's rural development. The updates including the scenarios, conditions, opportunities, threats and future directions were described and analyzed in relation to agriculture in this present time. The researchers provided specific analysis and cases on the realities of strategies, best practices, models, issues and concerns confronting the overall operation and management of rural people and communities involved in agricultural activities. Furthermore, reports were done by researchers who have long experience working on rural and agricultural development with interests and expertise on rural finance.

In addition, microfinance as required by smallhold farmers and fishers is necessary alongside technological and financial resources. As noted, most of the financial resources are still provided by informal lenders to support agriculture, fisheries and agri-fishery related activities but gradual change is being done by financial institutions. The allocation and utilization of meagre financial resource vis-à-vis the rural and agricultural development provides further study that draws more dynamic action within the socio-economic and political arena.

The document envisions in shedding light on this matter and to all those working on agriculture and rural development particularly the sub-sector of rural finance. We encourage readers and practitioners to continue to question the realities of microfinance in agriculture in order that we can further enhance the depth and body of knowledge wherein we work for the common good of people and communities as a shared responsibility in making lives better and in improving the living conditions.

May this be a platform of knowledge sharing and exchange to further strengthen and enhance intellectual discourse between and among the members of APRACA, its partners and all stakeholders in rural finance and agricultural development.

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We would like to express our heartfelt gratitude to the following country experts/researchers who agreed to participate in this important research activity on the microfinance in agriculture documentation study of selected Asian countries. Without them, this document will be not realized as an important contribution to the ever growing and evolving process of microfinance development.

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We take pride in sharing this document to the members of the Asia-Pacific Rural and Agricultural Credit Association (APRACA) members and partners who constantly aspire to work efficiently in improving the conditions of clientele, rural communities and all stakeholders.

Acronyms

ACPC	Agricultural Credit Policy Council
ADB	Asian Development Bank, Manila
ADB/N	Agricultural Development Bank, Nepal
AFD	Agence Française de Dfiveloppement
AFMA	Agriculture and Fisheries Modernization Act
AMCFP	Agro-Industry Modernization Credit and Financing Program
APP	Agriculture Perspective Plan
APRACA	Asia-Pacific Rural and Agricultural Credit Association
ASKI	Alalay sa Kaunlaran, Inc. (Support for Development, Inc.)
AVCF	Agriculture Value Chain Financing
BAFIA	Bank and Financial Institutions Act
BAS	Bureau of Agricultural Statistics
BFIs	Bank and Financial Institutions
BoD	Board of Directors
CARD	Center for Agriculture and Rural Development
CBC	Credit Bureau of Cambodia
CBS	Central Bureau of Statistics
DBP	Development Bank of the Philippines
DCGC	Deposit and Credit Gaurantee Corporation
EIU	Economic Intelligence Unit
FGD	Focused Group Disscussion
FINGOs	Financial Intermediaries NGOs
FIs	Financial Institutions
FY	Fiscal Year
GBBs	Grameen Bikas Banks
GDP	Gross Domestic Product
GFIs	Government Financial Institutions
GoNG2P	Government of Nepal: Government to Public Payment
HHs	Households
IB	Insurance Board
IDA	International Development Association
ILO	International Labor Organization
INGOs	International Non-Government Organizations
IPA	Innovations for Poverty alleviation
IPO	Initial Public Offering
MABS	Microfinance Access to Banking Services
MAFF	Ministry of Agriculture, Forestry and Fisheries
MAP	Micro-Agriloan Product
MCPI	Microfinance Council of the Philippines
MDGs	Millennium Development Goals

ME	Micro-Entrepreneur
MEDEP	Micro Enterprises Development Program
MFDBs	Microfinance Development Banks
MFIs	Microfinance Institutions
MFIs	Microfinance Institutions
MoAC	Ministry of Agriculture
MoF	Ministry of Finance
MSME	Micro, Small and Medium Enterprises
NAPC	National Anti-Poverty Commission
NARC	Nepal Agricultural Research Council
NBC	National Bank of Cambodia
NCDB	Nepal Cooperative Development Bank
NGO	Non-Government Organization
NGOs	Non-Government Organizations
NPC	National Planning Commission
NRB	Nepal Rastra Bank
NUBL	Nirdhan Utthan Bank Ltd.
PCFC	People's Credit and Finance Corporation
PCIC	Philippine Crop Insurance Corporation
PGBBL	Paschimanchal Grameen Bikas Bank Ltd.
PPP	Purchasing Power Parity
RBAP	Rural Bankers Association of the Philippines
RGC	Royal Government of Cambodia
RMDC	Rural Microfinance Development Centre
RoA	Return on Asset
RSRF	Rural Self-Reliance Fund
SACCOs	Saving and Credit Cooperatives
SEPO	Senate Economic Planning Office
SFCLs	Small Farmers Cooperatives Limited
SFDB	Small Farmers Development Bank
SFDP	Small Farmers Development Program
SHGs	Self-Help Groups
SKBBL	Sana Kisan Bikas Bank Ltd.
SMEs	Small and Medium Enterprises
SNEC	Supreme National Economic Council
TSPI	Tulay sa Pag-unlad, Inc. (Bridge for Development, Inc.)
UNDP	United Nations Development Program
VDCs	Village Development Committees
WB	World Bank
WFP	World Food Program

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INTRODUCTION

The Asia-Pacific region is one of the fast growing regions as far as development initiatives and innovations are concerned. One of the concerns is on rural and agricultural development in providing sustainable financial support to small-to medium-term businesses in order to be fully productive and profitable. Key players such as farmers, producers, traders, entrepreneurs and other stakeholders are confronted with limited sources and availability of credit and loans. Through microfinancing scheme particularly applied to agriculture, several financial institutions and customers are now working together in improving access, promotion and availment.

The general understanding is that the agriculture microfinance is risky as many aspects in the process, from production till marketing are not certain and not controllable. After near saturation in urban areas the MFIs have made inroads into rural and remote areas. But then, the rural microcredit is predominantly into agriculture or agro-dependent activities. There are numerous reports that microfinance in rural areas is profitable, but indiscriminate lending without understanding the purpose for which the clients tend to use the credit might lead to delinquency. It is necessary to understand farmers' cash flows, and insist for some payment regularly before the loan is repaid out of the harvest marketed. The loan administration process in banks is elaborate, and therefore, expensive, and may not suit micro-lenders. This process also demands qualified professionals to handle agricultural loan portfolio. They are designed for huge borrowings from few borrowers. Agriculture microfinance product has to be designed for large number of borrowers to borrow small amounts. Therefore, the loan administration process in agriculture microfinance has to be simple, effective, low cost and hassle-free, and at the same time it should address delinquency.

The challenges to agricultural lending are variable rainfall (especially for dry land farming), pests and diseases, price fluctuations and constrained smallholder access to inputs, advice, and markets coupled with small size of individual transactions and high information/transaction costs for service providers. Seasonality of agricultural production (crop production in particular) leads to a lag between investment needs and expected revenues, and consequent liquidity management challenges to Financial Institutions. The other challenge is lack of usable collateral due to ill-defined property and land-use rights, costly or lengthy registration procedures, and social constraints to foreclosure

Agriculture microfinance is done differently by microloan providers when compared to traditional lenders to agriculture. Some features are distinct in case of agriculture microfinance whereas some of them are applicable for any type of microfinance. In agriculture microfinance credit decisions are taken on current repayment capacity such as short-term, incrementally increasing loans to establish relationships with clients and lower default risk. We find repayment schedule with frequent payments to take advantage of the multiple income sources of a borrower's household. MFI relies on staff trained in lending methodology, not on client activities, expects loan officers to focus on building relationships with clients, enforcing repayment, and understanding the performance of farming households' multiple economic activities. MFI develops efficient management information systems to facilitate immediate follow-up on late payments.

Based on the aforementioned issues and concerns above, the International Fund for Agricultural Development (IFAD) supported APRACA grant FinServAccess Project commissioned seven studies to its members – Bangladesh, Cambodia, India, Nepal, Pakistan, the Philippines and Sri Lanka in order to have a comprehensive description of country scenarios and cases of microfinance especially within the context of agriculture.

The document is organized into seven parts highlighting the research documentations of the technical researchers who closely worked with the key players and stakeholders. Part 1 describes Bangladesh as an important country that defined the perspective of grounded microfinance for its people and communities. It illustrated the rural credit market including the financial market and policies. At the same time, the inclusion of non-government organizations that played a vital role in the microfinance revolution of the country. A case study on BRAC's agricultural programme complements the whole scenario and condition of growing microfinance system and programme.

Part 2 – Cambodia is described in its direction towards microfinance in agriculture. Historical antecedents in agriculture serve as an entry point to microfinance development in the country with latest strategies and tools in agricultural finance. Specifically, changes in loan features and processes plus existing agricultural loan products and services are analyzed which enhanced operation at the ground supported by thorough discussion on the issues, concerns and constraints from the MFIs, client and regulatory levels. Three cases are described in this portion to complement the latest updates and condition.

Part 3 – India's microfinance is discussed from the macro level of agriculture and rural development scenario. Policies, indicators as well as issues and concerns on financial sector are described as basis for further development including the history of microfinance in the country. Furthermore, emerging models applied to Indian agriculture and microfinance condition through the Self-Help Groups (SHGs) and Joint Liability Groups (JLG) as well established model complete the picture. The challenges of microfinance in agriculture together with directions conclude the very lucrative and dynamic rural and agricultural development of the country for its people.

Part 4 – Nepal microfinance is considered as one of the fast growing financial sub-sectors in the country. The documented scenario and condition provide a clear description within the context and perspective of the bank financing in agriculture and rural sector. Based on the research conducted by the research team from the Nepal Rastra Bank (Central Bank), comprehensive illustrations are provided from all angles of financial development including policies, models, tools and strategies.

Part 5 – Pakistan microfinance is described from the perspective of its network, the Pakistan Microfinance Network (PMN). It discusses the agriculture and credit scenario of the country. Also, it provides a complete understanding on the microfinance sector as it addresses the lending requirement in agriculture, its policy environment and some donor initiatives that supported the development of the sector. Four successful cases concretize the learning process and application of best tools and practices of the some network members leading to a productive, profitable and progress microfinance venture in agriculture. Challenges and future directions complete the documentation for a progressive rural and agricultural development of the country.

Part 6 – The Philippine microfinance in agriculture was prepared through an analytical research design. It emphasized the full description of the sector from the macro to micro level of the agriculture and finance sectors. Specifically, microfinance was reviewed from one of the most successful microfinance institution of the country, the CARD-MRI identifying key indicators of success which lead several stakeholders to be progressive in rural and agricultural-based activities. CARD-MRI cases complete the full description of the scenario and condition in the Philippines using best strategies, tools and practices.

Part 7 – Sri Lanka microfinance is presented within the context of the agricultural sector of the country. It also describes the financing strategy within the agriculture as it analyses its contribution to development and addressing the poverty concern. Historical development including policy and supervision, gender issues and outreach complete the analysis and documentation. Furthermore, successful stories and key observations were also documented to illustrate the challenges and direction of the country towards socio-economic development.

Part 1

Bangladesh Microfinance in Agriculture

Mahabub Hossain and Abdul Bayes

1. Introduction

Bangladesh has achieved remarkable progress on different fronts. She is now considered as a 'development puzzle' in the development discourse. Since independence in 1971, economic and political reforms carried out by successive governments contributed to broad based social and economic development. The economic growth has accelerated from 4.0% in the 1980s to over 6.0% during the last decade. The country has made remarkable progress in reduction of fertility rate (from 6 in 1980s to 2.2 in 2011) and in infant and under-five mortality of children. The school participation rate at the primary level is now almost universal, and the gender disparity in school participation at the secondary level has disappeared. Organization of women in village associations, and expansion in the supply of microcredit through women have contributed substantially to women's empowerment and their participation in economic activities. The per capita incomenow stands at about US$ 958 (2012/13) as compared to US$ 100-150 in the 1970s. Although income disparity has grown over time, the poverty rate has declined from over 70% in the 1970s to 32% in 2010 (Ministry of Finance 2014, BBS 2012).

Over time, the agricultural and the rural sector witnessed remarkable resilience and progress. From a traditional technology and subsistence based farming, a modern agricultural sector has emerged despite the predominance of small and marginal farmers (Hossain and Bayes 2009, Hossain 2012). Over 80% of the rice land is now covered by high-yielding varieties developed in the National Agricultural Research System. Agricultural mechanization has swept across the country. Crop diversification and commercialization are on the rise. Agro processing, contract farming and production of high value crops such as potatoes and vegetables are gradually gaining ground. With impressive growth in agricultural productivity, the country is now on the brink of achieving self-sufficiency in staple food production (rice), despite a reduction in cultivated land by 0.6% per year. Infrastructural development such as access to electricity, irrigation and paved roads has contributed to the rapid expansion of non-farm activities that has contributed to scarcity of agricultural labor and rapid increase in real wages. About 55% of the rural income is now derived from rural non-farm activities compared to 40% two decades ago (Hossain and Bayes 2009, Hossain 1990).

In the international development arena, Bangladesh is better known as a country of microcredit and microfinance. Led by the Grameen Bank in 1984, the country has experienced a rapid growth in microfinance institutions that serve the marginalized population. As recognition of its role in serving the poor, both Grameen Bank and its mentor Mohammad Yunus were awarded Nobel Prize for peace for contribution to poverty reduction in Bangladesh and beyond. Bangladesh is now called a hub of microfinance institutions. Many countries across the globe have replicated the modelto extend financial inclusion in rural areasin their respective countries.Empirical evidences point to positive impacts of their operations especially in easing the credit constraint of the poor, asset less households who have no collateral to qualify for credit from formal financial institutions. Over time, microcredit has graduated into microfinance with provision of savings and micro-insurance services to the loan receiving households. Although the microcredit was initially used to finance mostly non-farm activities such as trading and transport operations, part of the credit is now used to finance working capital needs for agriculture.

The purpose in this paper is to provide an overview of the evolution of rural credit market in Bangladesh and the contribution of NGO-MFI to the growth of the market and expanded the financial inclusion in rural areas.The paper analyzes data from a longitudinal household survey to get a demand side story on financial inclusion, share of MFIs in the credit market, the state of indebtedness and the pattern of utilization of the loan. The paper also reports a case study of agricultural credit programme recently introduced with public private partnership.

The study draws on analysis of primary sources of data and official statistics and published documents. The primary data was obtained from a census of households in 62 randomly selected villages carried out in 2013 by BRAC. About 12,000 households were covered by the Census. However, for providing a comparable picture, the paper also uses information from a repeat sample survey of households in the 62 villages carried out in 1988, 2000 and 2008 that were already analyzed by the authors (Hossain and Bayes 2009). A multi-stage random sampling technique and structured questionnaires were used in the selection of villages and households.[1] The secondary sources of information constitute published materials of government and other agencies.

The paper is organized as follows: Section 2 presents an overview of the rural credit marketin Bangladesh followed by a discussion on access to rural credit and the change over time in section 3. A glance at the microfinance market from the demand side based on household level data appears in section 4. The paper conclude by presenting a case study of agricultural credit programme introduced recently by one of the large NGOs, BRAC (Bangladesh Rural Advancement Committee).

[1] The details of research methodology and data source have been shown in various documents (Hossain and Bayes 2009).

2. An Overview of Rural Credit Market

2.1 Rural financial market

In a regime of unequal ownership of land and the inequitable social structure, – so runs the argument in the literature on rural markets – institutional credit is likely to reach first to the larger farmers with a denial to the poorer ones despite their dire needs for the adoption of input-intensive modern agricultural technologies. In consequence, differentiation of peasantry and polarization of peasant households are likely to occur over time with increased supply of credit and diffusion of improved technologies (Bardhan 1970; Byres 1972; Bhaduri 1973; Dasgupta 1977; Griffin 1974; Pears 1980; Boice 1987). Besides this, greater social and political power – springing from concentration of land and control over the tenancy market – provides the well-off rural households to greater access to formal financial institutions. The formal financial institutions turns away its face from poor farmers since they cannot afford to provide collateral security and the transaction costs for providing small loans is much higher than the government stipulated interest rates for serving them (Osmani 1998).

Due to restricted access of poor rural households to the formal financial institutions, the rural credit market is characterized by dualism in many developing countries. There is a formal market where institutions provide intermediation between depositors and lenders by charging relatively low rate of interest, often subsidized by the government. On the other hand, for centuries an informal market exists side by side with the formal market, where groups and segments within the villages supply credit from their own savings, known as professional money lenders, traders, landowners, friends and relatives (Hoff et al. 1993). Compared to the formal market, the interest rate from the informal market is often many times higher, often 10% per month.

2.2 Overview of credit policies in Bangladesh

In Bangladesh the inception of the formal financial system for providing rural credit started with the establishment of Agricultural Development Bank in the 1960s. Later the government also encouraged commercial banks to set up branches in rural areas for financial inclusion. In 1977 a special agricultural credit program called, “MatirDak” was launched. As a result the number of branches in rural areas increased from 854 in 1975/76 to 3,225 in 1983/84. The rural branches were engaged both in the collection of savings and provision of credit.

However, on a close scrutiny, it was observed that the access to finance was provided mostly to large and medium landowning households and big traders and fishermen. The landless and marginal farmers remained excluded from the market. A survey conducted in 1982 jointly by the International Food Policy Research Institute (IFPRI) and the Bangladesh Institute of Development Studies (BIDS) revealed that 62% of rural households obtained loans from informal sources and most of them being the smaller landowning groups (Table 1). Only 14% of rural households could access loan from financial institutions that contributed to 25% of total loans received by rural households. The recovery of loans from the financial institutions was very poor, and the transaction cost of the loans was high due to small size of loans. Many financial institutions however showed fictitious record of good recovery by re-scheduling the overdue loans into current loans and even showed profits in the books by charging interest on overdue loans. To control this phenomenon, the Bangladesh Bank introduced a policy of classification of loans according to the recovery rate and keeping provision for loan loss according to quality of loan portfolio. As rural branches started accumulating losses, many commercial banks closed loss-making rural branches from the mid-1980s.

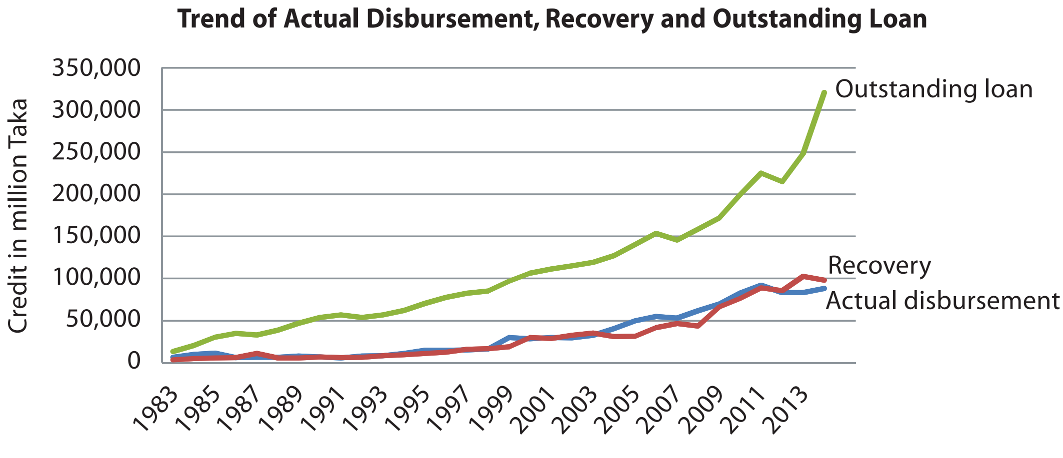
Table 1. Access to rural credit, by landownership group, 1982

Land owned (acre)	Households receiving loans (%)		Amount of loans per household (Tk per year)		Share (%) of total loans obtained from Institutions
	Institutional sources	Informal sources	Institutional sources	Informal sources	
Up to 0.49	6.8	91.6	81	936	8.0
0.5 to 1.99	15.0	55.9	226	841	21.2
2.0 to 4.99	20.0	46.9	504	936	34.4
5.00 or more	21.0	29.0	929	1,493	38.4
All households	14.3	61.7	323	964	25.0

Source: Compiled from a survey of 640 randomly selected households in 16 villages that was jointly conducted by the International Food Policy Research Institute (IFPRI) and the Bangladesh Institute of Development Studies (BIDS); cited in Hossain 1988, p. 22.

According to the critics, the history of Government's involvement in extending agricultural credit to rural households is a history of frustrations and wasteful endeavors. The loan recovery rate against outstanding loans has averaged 22% from 1998-2010. The annual rate of increase in disbursement averaged 17% and the annual rate of repayment averaged 12%. This gap between rates of disbursement and repayment resulted in accumulation of outstanding loans (see Figure 1). A World Bank study reports that the importance of banks and cooperatives in rural lending has declined over time while the importance of MFIs has increased (Mudahar and Ahmed 2010).

Figure 1. The trend in the supply of agricultural credit and the repayment and loan outstanding, 1983-2013



Source: Bangladesh Bureau of Statics and Ministry of Finance

Recentlysome qualitative changes have been introduced in the credit delivery system that contributed to improvement in the credit business targeted for farmers and small enterprises. The monitoring cell of the Central Bank (Bangladesh Bank) has been strengthened for ensuring transparency in the credit business and reducing the transaction cost for obtaining credit by borrowers. Priority is given to credit support for women in agriculture to increase women's participation in economic activities. Emphasis has been laid on development of marketing facilities for agricultural products to ensure fair price. Priority has been given to reach credit torelatively impoverished and neglected region such a char (island), haor and coastal areas. The Central Bank made it mandatory for the state-owned commercial banks as well as the private and foreign banks to allocate at least 2% of their loan portfolio for agriculture.

Recently, the Bangladesh Bank has issued a directive to commercial banks to disburse agricultural loan openly in the presence of local representatives from union, concerned agricultural officers, teachers and other respected persons to ensure transparency. Another innovative step towards financial inclusion is the opening of bank account by all farmers at a minimal charge of Tk 10 (12 cent), so that credit, subsidies and other government transfer could be directly deposited to the farmer's account. This has helped reducing leakages in the implementation of the government's agricultural subsidy and the "safety nets" programme. Bangladesh Bank has brought 13.2 million people under banking service that includes farmers, hardcore poor, and the unemployed youth.[2]

[2] Adapted from "Of Changes and Transformations", Bangladesh Bank, July 2009-2013.

3. NGO and the Microfinance Revolution

The 'financial exclusion' of the poor in the formal credit market somewhat faded with the advent of innovative model of credit delivery and recovery model introduced by Grameen Bank in 1984 (Hossain 1988). Mohammad Yunus, an economics professor at Chittagong University experimented the model during 1976 to 1983, initially as an experimental study in a village (Zobra) and later as a government sponsored project financed by the International Fund for Agricultural Development IFAD).[3] For financial inclusion of the poorest the Grameen Bank introduced a collateral free loan initially delivered at the door steps of the borrowers. Households willing to access credit were organized in a group of five like-minded potential borrowers who act as a peer group to provide information of credit worthiness of the members and to keep watch on whether the money is invested for organizing income generation activities. A number of such groups were federated into a village association (Centers) that holds meeting on a fixed day and time every week. The Credit officer of the Bank attends the meetings where the loan proposals were discussed and agreed upon, repayment installments and savings are collected and the members' social problems were discussed and acted on.The loans are channeled through a women member of the household, but usually she shares the loan with other members of the households for initiating a new project or for expanding an existing enterprise. The loan and the rate of interest is paid within a year in equal weekly installments collected by the Credit Officer in the weekly meeting. An amount of 5% of the loan was deducted at the time of disbursement that was deposited in a Group Fund which as a security against the loan default, but ultimately deposited in the member's savings account when the loan is fully repaid. The members can use the savings during emergencies and can withdraw the savings when leaving the association.

The above model was highly user-friendly for reaching poor rural households with credit. The prospective borrower does not have to go to bank branch which is an unfavorable environment for many of them. As many of them lack formal education they were shy to deal with a formal banking environment – filling of application forms and other formalities such as providing records on ownership of the collateral security that many of them lack. The system of weekly repayment of small amounts was particularly helpful as they can access the amount from a regular income generation activity of one of the household member. It also provided opportunity of forced savings from the meager amount of income which would have otherwise been spent to meet the consumption needs or other emergency needs in an environment of subsistence living. The model ensures over 98% recovery of loans in due time, contrary to high incidence of default when the loan is collected in one large installment when the loan is due for repayment.

The Bank has made huge success in reaching financial services to women from low-income rural households (Table 2). Over 1984-2012, Grameen Bank expanded its membership from 0.12 million to 8.40 million and the amount of loans disbursed increased from Tk 304 million in 1984 to Tk 1.40 billion in 2000 and further to Tk 119 billion in 2012. The most rapid expansion took place during 2000-2008 with membership increasing three times and loan disbursement increasing 4.4 times. In 2012, Grameen Bank employed 22,261 staff, and enlisted 8.4 million members in its village level associations, and issued loans of Tk 119 billion (USD 1.524 billion) to 6.7 million borrowers with an outstanding loan of Tk 80.4 billion (US$ 1.03 billion).

[3] For a genesis of the emergence of Grammen Bank and its model for conducting credit business see Hossain (1988).

Table 2. Expansion of Grameen Bank Microcredit Program, 1984 to 2012

Year	No. of members (million)	Amount of loans disbursed during the year (billion Tk)	Amount of loan outstanding with the borrowers (billion Tk)	Ratio of loan outstanding to amount disbursed
1984	0.12	3.04	1.77	0.58
1990	0.87	2.26	1.27	0.56
1995	2.07	13.66	8.30	0.61
2000	2.37	13.96	10.44	0.75
2005	5.58	39.00	27.36	0.61
2008	7.67	62.10	44.40	0.71
2010	8.35	96.19	66.43	0.69
2011	8.37	108.54	73.25	0.67
2012	8.35	1,18.62	80.32	0.68

Source: Grameen Bank database

The success of the Grameen Bank model in generating self-employment for un- or underemployed workers in poverty-stricken households, while sustaining the operations with excellent recovery of loans and the cost of servicing the loan, encouraged many NGOs engaged in community empowerment to include microfinance in their activity portfolio. Some of them such as ASA made further innovations in credit delivery to reduce the cost of servicing the loans and generate surplus from the business. As a result, the NGO microfinance institutions (MFIs) proliferated over the last decade.

The government supported financing of small and local MFIs by establishing Palli Karma Sahayak Foundation (PKSF): Foundation for supporting employment generation) by providing them low-cost loan fund. The loan fund was constituted with financial support from the International Fund for Agricultural Development (IFAD), the Asian Development Bank (ADB) and the World Bank. The fund is provided at an interestrate of 5 to 7% depending on the size of the MFIs. PKSF places emphasis on making MFIs to be self-sustained and viable in the long-run. For ensuring high level of efficiency in MFIs, these institutions are advised to separate the functions of development interventions (education, health, sanitation, awareness creation, environmental protection, etc.) from the functions of financial services, to instill the practice of transparent accounting and monitoring financial indicators. At present, PKSF has developed a network of over 250 Partner Organizations (POs).

In 2006, the government established the Microcredit Regulatory Authority (MRA) under the auspices of the Central Bank to regulate the MFI's, to safeguard the interest of the members of MFIs. Table 3 shows the basic information on the microfinance business in Bangladesh till June 2012 as published in the MRA database. The data cover NGO-MFI's registered with MRA. It excludes the information on Grameen Bank. As a specialized Microfinance Bank Grameen is not considered as an NGO. The information demonstrates that microfinance is a mature industry in Bangladesh. By June 2012, the NGO-MFIs provided loans to about 19.3 million borrowers (Bangladesh has about 33 million households). If we include another 6.7 million covered by the Grameen Bank, the coverage is about 26 million (compared to 58 million labor force). It is estimated that over 40% of households take loans from multiple MFIs (Kandker 2012, Khalily 2011). In consideration of this overlapping, the coverage would be about 16.4 million households.

The size of microfinance market is indicated by the amount of loans outstanding with the borrowers. For the NGO-MFIs the amount stood at TK 211 billion (USD 2.7 billion). The total amount of loans including the amount provided by the Grameen Bank was about TK 328 billion (US$ 4.2 billion). Another contribution of the microfinance industry in Bangladesh is the employment generated for the educated labor force (the rate of unemployment among the educated is very high in Bangladesh). In 2012, the NGO-MFIs provided jobs to 109,000 college and university graduates. In addition, and the Grameen Bank has provided jobs to 22.3 thousand workers for the transaction of the credit business.

Table 3. Basic information on NGO-MFIs in Bangladesh 2012

Indicators	June 2008	June 2010	June 2012
Number of MFIs registered with MRA	293	516	643
Number of branches under operation	15,077	16,851	17,977
Number of employees	98,896	109,597	108,654
Number of members (million)	23.45	25.28	24,64
Number of borrowers (million)	17.79	19.21	19,31
Amount of loan outstanding (Tk billion)	134.7	145.0	211.3
Amount of Savings mobilized (Tk billion)	47.4	51.4	75.2

Source: MRA-MFIs database 2011: Note: the numbers exclude the coverage of Grameen Bank.

A review of the microfinance industry conducted by Sinha and Hashemi (2011) for the 10 largest MFIs (with a membership of over 200,000) revealed the following:

- There is a high concentration in the microfinance market. Three largest MFIs, Grameen Bank, BRAC and ASA accounted for about 70% of the microfinance portfolio, and the 10 largest accounted for 87%.
- The average loan balance per borrower has increased from US$ 71 per borrower in 2005 to US$ 115 in 2009, about 20% of the per capita gross national income.
- The products include not only credit but also savings and micro-insurance. About 40% of the MFIs provide insurance for various purposes, including exemption of outstanding loan when the borrower accidentally passes away, the funeral expenses, and for major health hazards such as accident, and death of livestock.
- The efficiency in loan operation is very low. The cost of operation was about 14.6% of the outstanding loan, compared to 17% in Asia and 20% at the global level.
- The average yield (income from service charge) was about 23% compared to a 27% interest rate cap introduced by the Microcredit Regulatory Authority. With a cost of loan fund of about 9.4%, the cost of servicing the loan at 12%, and a provision for bad debt of about 3.0%, the MFIs were able to make some surplus in the credit business. The surplus is accumulated as retained earnings which is an important source of loan fund.
- The portfolio quality is not so impressive compared to the international standard. The portfolio at risk (overdue loans for over a month) was about 6.6% for the top three MFIs and about 4.9% for the others.

4. Financial Inclusion, Indebtedness and the Use of Credit: the Demand Side Story

4.1 Sources of data

In this section we use information obtained at the household level to draw a picture on financial inclusion from the demand side. The data were obtained from a longitudinal survey in randomly selected 62 villages that collected information on the operation of the rural economy including access to agricultural credit and its use. The survey was conducted to coverrandomly selected households from 62 villages from across the country using a multi-stage random sampling process.[4] The survey covers 57 out of the 64 districts of the country. The data were collected from the same households and villages in 1988, 2000 and 2008. Recently in 2013 a census was conducted on all households of the villages to draw a sample frame for a repeat survey in 2014. The census also contained information on access to credit and their sources. The first author was involved as principal investigator in all these surveys.

4.2 Financial inclusion

The stated objective of the NGO-MFIs is to provide financial support to economically weaker sections of rural households since they cannot access loans from formal financial institutions. Most of the NGOs initially targeted the "functionally landless" households, defined in Bangladesh as households owning less than 0.5 acres of land that cannot be a significant source of income. It is assumed that the workers from these households suffer from unemployment and under-employment since they do not have farm business to employ such labor and cannot find enough remunerative jobs in the prevailing agricultural and non-agricultural labor market. With provision of loans the NGOs assist them to organize self-employed economic activities to produce goods and services that they can market to eke out a subsistence living. In Bangladesh almost 60% of the rural households are functionally landless.

Table 4. Expansion of the rural credit market (% of households taken loans), 1988 to 2013

Year of Survey	Landless households	Landowning households	All households
1988	37.5	36.5	37.0
2000	41.5	31.0	36.3
2004	44.6	34.7	40.0
2008	50.7	37.8	44.8
2013	60.0	47.7	55.1

Source: Authors' own estimate from unpublished data from a longitudinal sample household survey that covered 57 randomly selected villages from 57 districts (for methodology of the survey see (Hossain and Bayes, 2009).

Table 4 shows that households taking loans has increased from 37 to 55% over 25 years since late 1980s when the NGO-MFIs began their journey as a source of supply of credit. The financial inclusion has increased faster for the land-poor households (primary target for NGO-MFIs), compared to the land owing households. In 2013, 60% of land-poor households have accessed credit compared to 48% for households who own land in sizes over 0.5 acres. The financial inclusion was almost the same for both groups in 1988.

[4] For details of the sample survey see Hossain et al. 1994, and Hossain and Bayes 2009.

4.3 Sources of credit and their share of the market

The information on the importance of different sources of credit and its change over 1988-2000 can be noted from Table 5.The numbers indicate that most of the expansion in the credit market and in the loan from formal sources is due to increased access to credit form NGO-MFIs. The households accessing credit from NGO-MFIs increased from four to 34% over 1988-2000. The NGOs' share of total credit has increased substantially. Very few rural households accessed credit from commercial banks, but for those who had access, the average size of credit has increased almost five times.

About one-fourth of the rural households accessed credit from informal sources (moneylenders and friends and relatives) in 1988. Their number declined to only 10% in 2008, but the average size of loan increased almost six times. The share of informal sources in total loans declined from 72 to 42%. Thus, expansion of credit from NGO-MFIs led to reduced dependence of rural households' on the usurious informal markets. But the share of the informal market still remains large.

Table 5. Sources of credit market in rural Bangladesh and their share of the market, 1988 to 2008

Sources of loan	Households borrowing from the source (%)		Average size of loan (US$)		Share of the source in total loan (%)	
	1988	2008	1988	2008	1988	2008
Commercial banks	9.0	4.8	136	735	20.7	21.0
NGO-MFIs	3.8	34.1	102	184	6.7	37.0
Moneylenders	11.6	4.6	155	537	39.0	14.8
Friends and relatives	12.6	4.9	115	920	33.6	26.8
All sources	37.0	44.8	131	374	100.0	100.0

Source: Hossain and Bayes (2009).

One of the factors behind continued dependence of rural households for loans on the informal market despite rapid expansion of NGO credit is the small size of loans provided by NGO-MFIs. The average size of loans from the MFIs increased from US$ 102 in 1998 to US$ 184 in 2008. To finance large size expenses, such as improvement of housing, holding of marriage ceremony or financing overseas migration, households still depend on high cost informal sources.

Table 6. The role of NGO-MFIs in the credit market in 2013: Findings from a census of households from 62 randomly selected villages

Sources	Households receiving loans (%)	Average Loan (US$)	Share of total loan (%)
Institutional Sources	**43.6**	**352**	**70.0**
Commercial Banks	2.0	1,156	12.6
NGOs-MFIs	41.6	257	57.4
Grameen Bank	12.3	235	15.9
ASA	9.5	240	12.6
BRAC	6.3	309	10.7
Other NGOs	13.5	244	18.2
Informal Sources	**11.5**	**452**	**30.0**
Friends/relatives with interest	4.8	527	13.9
Friends and relatives without interest	2.9	448	8.2
Moneylenders/traders/landowner	3.8	381	7.9
All Households	**55.1**	**411**	**100**

Source: Census of all households from 62 villages to draw the sample frame for a repeat the sample survey in 2013.

The most recent information of financial inclusion and the coverage of NGO credit obtained can be seen from Table 6. The table also provides information on the coverage of specific of big NGOs in the credit market. The data reveals that 55% of rural households accessed credit in 2013, 44% of them from commercial banks and NGOs. Thus, the financial exclusion still remains high despite rapid expansion of the NGO-MFIs.The most noteworthy information is that in 2013 only 2% of rural household received credit from the commercial banks, but the average size of loan is almost five times higher than the amount provided by the NGOs. It indicates that the commercial banks increasingly serve the better-off sections whose access credit in large amounts.

Indeed the NGO-MFIs dominate the rural financial market. Grameen Bank alone provides loans to 12% of rural households, followed by ASA which covers another 10% of households. BRAC is the third MFI that covers about six percent of households. Large number of local NGOs also participate in the credit market. As mentioned earlier, these NGOs are funded by the government sponsored the Palli Karma Sahayak Foundation that provides subsidized loan funds. They have become an important player in the rural credit market. In 2011, about 12% of rural households still accessed loans from the informal market whose market share stood at 30%.

4.4 Rural indebtedness and role of NGO-MFIs

Does the MFI credit contribute to deepening indebtedness in rural areas? The critiques argue that easy access to credit led many households to take loans without knowledge of whether the loans can be productively used and whether the investment will give a return higher than the rate of interest charged on the loan. The interest charged on the loans from NGO-MFIs is large (27% on declining balance) due to high cost of servicing the loan and the risk of bad debt. Recently the MFIs borrow loan funds from the commercial banks to expand their credit operation. The cost of the loan fund is usually 10 to 13% per year. So the cost of servicing the loans comes to about 25%. If the borrower fails to utilize of the loan in productive ventures, and rate of return is lower than the rate of interest, the loan would be difficult to repay and the misery of the household would be further deepened. This apprehension is demonstrated by a) media reports that the MFIs take recourse to coercive methods for collecting overdue loans, and b) multiple borrowings of the households from a number of NGO-MFIs. It isargued that about 40% of borrowing households borrow from one MFI to repay the overdue loan obtained earlier from another MFI.

Table 7. Incidence of debt from different sources of loan, 2013

Sources	Households reporting indebtedness (%)	Average size of debt (US$) from the source	Share of total debt (%)
Commercial bank	43.5	539	36.1
Grameen bank	2.6	282	1.1
ASA	0.8	188	0.2
BRAC	1.0	443	0.6
Other NGOs	1.0	257	0.4
Friends/relatives with interest	14.1	673	14.6
Friends/relatives without interest	26.2	777	31.2
Money lenders	14.1	701	15.2
All sources	14.8	652	100.0

Source: unpublished data from census of all households in 62 villages, BRAC

Empirical evidences do not seem to support the hypothesis. In the 2013 survey conducted by BRAC Research and Evaluation Division sample households were asked to report on the overdue loans from the non-payment of installments in due time and the overdue loans after the expiry of the tenure of the loans contracted earlier.The findings are reported in Tables 7 and 8. It may be noted that only 15% of rural households reported that they have either defaulted on the current loans (Loan from NGOs are collected in weekly or monthly repayment) or has accumulated debt due to failure to repay the previous loans. Amount of debt per indebted households was 652 US dollars.

The major sources of overdue loans are from commercial banks and moneylenders or friends and relatives. Only 1% to 3% of the households reported indebtedness from loans obtained from NGO-MFIs. The highest amount debt is from loans from the informal markets or from commercial banks. The NGOs share of the debt was only 2.3%.

Table 8. Households (%) reporting debt by socio-economic status

Socio-economic groups	Households reporting debt	Households reporting overdue of the current loan	Households reporting overdue of past loans
Land owned (acre) by the household			
Up to 0.50	12.4	7.3	5.1
0.50 to 1.00	17.2	7.7	9.5
1.00 to 2.50	19.8	8.6	11.3
2.50 and over	23.9	8.3	15.6
Education of the head of households			
Up to 4 years of schooling[5]	13.6	7.6	6.0
Primary passed and secondary dropout	15.8	7.8	8.0
Secondary passed	20.8	7.2	11.6
Poverty status of the household			
Rich	13.5	4.8	8.7
Self-sufficient	15.5	6.8	8.7
Moderate poor	14.6	9.1	5.5
Extreme Poor	11.4	6.1	5.4

Source: Census of all households in 62 villages covered by longitudinal survey, 2013, BRAC

Who are the households who are more indebted than the others? To answer this question we analyzed the incidence of indebtedness across different socio-economic groups classified by landownership status, educational status of the head of the household, and the poverty status. The information is presented in Table 8. It may be noted that the economically better off households are more indebted than households with less land and less education. For example only 12% of the households who are functionally landless are indebted compared to 24% for households who own more than 2.5 acres. About 21% of household heads who have passed secondary schools reported indebtedness compared only 11% who are illiterate or have less than four years of schooling. The difference is mainly due to accumulation of debt from non-repayments of previous loans. It appears that the richer sections willfully default because they have the capacity of repayment of overdue loans if they are pressure of repayment. There are examples of exemption of the principal and accumulated interest by the government to gain popularity at the time of election. It provides a distorted incentive for willful default of loans from commercial banks.

4.5 Utilization of Credit

Microfinance organizations in Bangladesh have long been accused of bypassing the agricultural sector and the chronic poor. The critics mention that these organizations targeted only functionally landless households (having 50 decimals of land), and funded mostly non-farm activities. Over time, however, things have changed. Of late, the chronic poor have been brought under the net of microcredit by some

[5] It includes households who do not have formal education.

NGOs (especially BRAC), and credit has also been extended to pursue agricultural activities. As shown by Table 9, 40% of the loans from microfinance organizations were used for agricultural investment in 2013 compared to only 26% in 2000. However, the opposite holds in the case of bank loans. The use of bank financed loans for agricultural investment has declined from 51 to 44% over the 2000-2013. It appears that with a view to meeting the requirement of working capital of the poor farmers, microfinance organizations have increasingly targeted agricultural activities.

Table 9. The pattern of utilization of credit (% of loan money), 2000 and 2013

Sources	Commercial banks		NGO-MFIs		Informal sources	
	2000	2013	2000	2013	2000	2013
Agricultural investment	51.4	43.6	25.5[6]	39.8	19.3	27.0
Non-agricultural investment	25.3	21.3	31.8	29.2	24.1	25.2
Medical care	3.5	3.5	5.0	3.8	6.1	4.8
Education expenses	0.0	0.7	2.7	1.3	2.3	2.8
Housing improvement	7.7	7.4	9.7	9.4	5.6	7.9
Repayment of overdue loans	2.8	8.4	8.4	8.0	6.0	3.7
Food expense	5.6	4.0	16.5	8.1	29.3	16.8
Financing overseas migration	9.7	11.1	0.4	0.4	7.3	11.8

Source: Longitudinal household surveys of 62 randomly selected village from 57 districts

Three other important observations may be noted from Table 9. First, the utilization of loan money for food expense has declined over time in general and for NGO-MFIs supplied loans in particular. About 16.5% of the NGO supplied loans were used for food consumption in 2000; the number has come down to 8.1% in 2013. The change might have resulted from the rapid progress made in Bangladesh on achievement of food security.[7] Bangladesh has long been a major rice importing country, but she did not have to import any rice since 2010 and has started exporting rice from 2014. Second, about 10% of the NGO loans are used for housing improvement. But the share has remained almost at the same level during 2000-2013 period. The utilization of loans for meeting food expenses by NGO or informal loans has gone down over time. Third, the critiques argue a large proportion of NGO loans are taken for repayment of overdue loans contracted earlier. Table 7 shows that only 8% of the NGO loans accessed in 2000 were used for this purpose. The number remained almost at the same level in 2013 despite rapid expansion of the NGO loans during 2000-2013.

[6] Mudahar and Ahmed (2010) shows that loan disbursement by NGO-MFIs to fisheries, livestock, and agricultural high value crops from December 1997 to December 1999 averaged 33%. If food processing is counted, then the share reaches 40%.

[7] The production of rice, the staple food in Bangladesh has increased three folds since 1971. Most of Rice production increased since 2000 when the technological progress in rice production (most in the production of dry season irrigated rice farming (boro rice). People who to bed hungry now constitute only 1% (Hossain 2010, JPSPH and HKI 2012, 2013).

5. Case Study of a Successful Agricultural Programme

The trend towards dominance of small and marginal farmers in Bangladesh indicates growing need for agricultural credit to sustain technological progress and productivity growth in agriculture. The marginal farmer has very little surplus production over consumptions of self-produced goods that they can sell in the market for purchasing agricultural inputs. With the introduction of improved agricultural technologies, agricultural credit has come to be recognized as an indispensible input for crop production. For traditional crop varieties, the farmer used to supply most of the inputs from the household. The new crop varieties require large amount of "out of pocket" expenses for the purchase of modern agricultural inputs – seeds, chemical fertilizers, pesticides and irrigation expenses. Inability to finance such working capital needs would constrain adoption of improved technologies and sub-optimal use of inputs.

Due to the ineffectiveness of conventional microcredit and formal banking systems to reach agricultural credit to marginal and small farmers, BRAC designed an innovative project titled, Tenant Farmers Development Project (*Borga Chashi Unnayan Prakalpa* (BCUP)) to provide credit and extension services to small scale tenant farmers. The Central Bank of Bangladesh provided BRAC in October 2009 a refinancing facility of Tk 500 crore (USD 70 million) at low cost (5% annual rate of interest). The fund was given initially for three years with a target of reaching 300,000 farmers with credit within this period. The target group was tenant farmers with a size of farm of up to two acres that are either fully (pure tenant) or partially (tenant-owner) rented from others under different tenancy arrangements. In 2012, the Central Bank approved extension of the project for another three years.

The BCUP provides a customized credit services to farmers who cultivate land owned by others either fully or partially. The farmers are provided loans at subsided rate of interest of 10% per year at flat rate. The effective rate of interest comes to about 15 to 20% on declining balance depending on the mode of repayment of the principal and interest. According to the rules of the Microcredit Regulatory of the Central Bank NGOs can charge up to a maximum of 27% rate of interest on declining balance for their microfinance operations. Although the provision of extension service was not stipulated in the terms and conditions of the project contract, BRAC decided to include extension services free of charge on the premise that improved farming practices could increase the profitability of farming and thereby improve the capacity of the borrowers to repay the loan.

The project initially targeted male farmers of the tenant farm households by organizing them into informal Village Associations of tenant farmers, following the microcredit delivery system in Bangladesh. The association meets once a month attended by the project's credit and extension staff, where the problems of farmers (insects and diseases, accessing inputs, etc.) are discussed and installments of the repayments are collected. However during the implementation of the project it was revealed that male farmers lack interest in attending monthly meetings due to high opportunity cost of their time. It was also observed that in many tenant households women are farm managers while men are basically engaged in rural non-farm activities. Women are engaged in vegetable production and in poultry and livestock farming around homestead. It helps generate a regular stream of income that would facilitate repayment of loans in small installments on a regular basis. So, from 2011 the project started organizing women members of tenant households, and provides credit and extension services through them.

The beneficiary farmers use the loan to buy necessary inputs. They are also provided hands-on training to effectively utilize those inputs. The agricultural development officers regularly visit the VOs and help the members to develop year-round optimum cropping pattern and also to adopt improved production technologies, provide advices on crop and pest management that helps in increasing productivity and the capacity of the borrowers to repay the loan.

BCUP targeted to reach to all 484 *Upazilas* (sub-districts) of Bangladesh in successive phases. By September 2012, it reached to 212 *Upazila, and 303* thousand tenant farmers, 55% of them were women (Table 10). Initially BCUP was targeted to male tenant farmers, but now it is also working with female farmers from the tenant households.

Table 10. BCUP Program Roll Out, December 2010 to October 2012

Name of Component	Cumulative position of BCUP			Gender disaggregation, October 2012		
	2010	2011	2012	Female	Male	Total
Tenant Farmer Association (No)	7,579	10,826	14,460	6,334	8,086	14,460
Members enrolled (000)	141	220	303	173	130	303
Active Borrower (000)	109	156	219	130	89	219
Loan Disbursement Tk Crore (10 million)	159	372	695	230	465	695
Farmers Trained (000)	51	92	125	28	97	125

Source: BRAC, Agriculture and Food Security Program Department, MIS Report, November 2012

The project was incurring losses for the initial three years due to demand for small amount of loans. BRAC provided subsidy to continue the project. To increase the average size of loan and thereby reducing the cost of loan operation, the project started extending the loan for financing fisheries, livestock raising and financing land leasing by landless households so they move from the occupation of agricultural labor to tenant farmers. It increased the size of credit business and project started earning marginal surplus from 2013.

An evaluation study in 2011 sows that the project seemingly progressed well.[8] The study noted the following impact at the household level:

- The average amount of loan received amounts to Tk 14,000 (USD 185) with a range of 8,000-30,000. About 95% of the participants have repaid the loan within due time. The loan could be easily accessed and no collateral security needed to be provided. Contrary to payment of a certain proportion of loan funds to bank officials as "rents", the loan from the BCUP could be accessed without paying any extra money.
- Four-fifths of the borrowers now cultivate modern varieties of paddy (MV), as the available credit, to a great extent, eased the working capital constraint. In consequence, the rice yield has increased from 1.6 t/ha to over 4.0 t/ha.
- Ninety percent of the borrowers opined that that the loan has contributed to improvement in economic conditions, and three-fourths revealed that, in the absence of this particular loan, they would have to borrow from village money-lenders at an interest rate of 10% per month. In some areas, 0.4 tons of paddy worth of Tk 8,000 had to be surrendered to get a loan of Tk 10,000 (for three months) from the informal market. The tenant farmers loan saved some farmers from selling their output in advance at a price lower than the market rate.
- The most attractive aspect of the BCUP was that it takes maximum 21 days – from joining the group to the time of loan approval. This compares with more than three visits and often more than a month to access credit from the NGO-MFIs.
- In reply to a question as to how much interest rate would they be willing to pay to continue to receive credit services from the program (the project was running at a loss at 10% rate of interest), one-third of the respondents agreed to pay 13% interest per year and almost all agreed to pay 12% per year.

[8] Abdul Bayes and F.K. Patwary (2011), *Impact Assessment of Borgachashi Loan* – A report prepared for Bangladesh Bank.

The evaluation noted the following non-economic benefits from the project.

- Knowledge of agricultural technology and banking through pass books help the poor farmers to move to a path to modernization and commercialization of agriculture;
- Formation of social capital. Regular attendance of monthly meetings promotes group cohesion and provides a platform for sharing experiences, savings mobilization, and to raise voice against social injustices and violence against women and girls.
- The project promotes women's empowerment with increased participation in the decision making on choice of crops, crop management, children's education, travels and recreation, and some cases decision to use the income earned from the economic activities financed by the loan.

6. Concluding Remarks

Microfinance is a mature industry in Bangladesh providing financial services to at least half of the households. The average size of the loan provided by commercial banks has increased many times and the coverage of rural households has reduced substantially. Most of the expansion in credit from the formal sector has been on account of NGO-MFIs who started their journey in the credit market since the late 1980s. The NGOs however give loans in small sizes that do not satisfy the demand from successful borrowers. Now almost 40% of the borrowers from NGO-MFIs access loans from multiple NGOs. It may have contributed to breaking of credit disciplines which was characteristics of NGO loans in the early days.

Contrary to the hypothesis that a large part of the loan provided by NGOs to poor households is used to meet consumption needs, repayment of old loans and conspicuous consumption was not found to be valid. In 2000 nearly 56% of NGO loans were used to finance agricultural and non-agricultural investment. The share has increased to 68% in 2013. Agriculture's share of NGO loans has increased from 25 to 39% within this period.

BRAC introduced in 2009 a special project to reach credit to small and marginal farmers at a lower rate of interest. The project is financed by a low-cost loan fund from the Central Bank. The scheme targets mostly tenant farmers with a rate of interest of 10% per year compared to 13% for MFI Loans. The portfolio at risk for this project was similar to normal MFI loans. The project was initially running at a loss, so the sustainability of the credit programme was a concern. But with the inclusion of livestock and fisheries, and financing of land leasing the average loan size was increased substantially and the project is now running at a small surplus.

Part 2
Cambodia Microfinance in Agriculture

Dannet Liv

1. Introduction

The IFAD supported APRACA FinServ Access Project aims to determine how such financial support is accessed by rural people especially poor people who are the most deprived sector in development. Based on this, there is a need to conduct a regional study on the development and present condition of microfinance in agriculture of selected countries in the region. This report is a country study of Cambodia, which documents the current conditions of microfinance in agriculture within an Asian regional perspective.

With more than 70% of the population still living in rural areas,[1] it is no surprise that agriculture remains the backbone of the Cambodian economy, contributing 32% to gross domestic product (GDP) in 2013 and employing 51% of the total labor force[2]. The sector is large and undeveloped, and has huge growth potential. Growth in the sector has been modest, averaging around 4% over the past 5 years (Table 11).

Table 11. Rice Statistics (2008-2012)

Descriptions	2008	2009	2010	2011	2012
Share of Agriculture in GDP (%)	26.8%	28.0%	29.0%	28.4%	27.5%
Growth of Agriculture (%)	5.7%	5.4%	4.0%	3.3%	4.3%
Cultivated Area (ha)	2,615,741	2,719,08	2,795,892	2,968,529	3,007,454
Harvested Area (ha)	2,613,363	2,674,603	2,777,323	2,766,617	2,980,297
Yield (T/ha)	2.746	2.836	2.970	3.173	3.117
Paddy Rice Production (MT)	7,175,473	7,585,870	8,249,452	8,779,365	9,290,940
White Rice Exports (MT)	5,000	15,800	51,300	176,200	192,600

Source: MAFF

The sector remains predominately subsistence farming and there are a number of challenges hindering its transition into a commercialized sector, of which lack of financial capital stands out as one of the top five constraints. According to the recent Census of Agriculture in Cambodia 2013, 84.6% of 2.6 million households listed engage in agriculture activities. The average land holding is 1.6 hectares per household. 98% of the land parcels are owner operated. The sector still has a huge potential for agriculture growth, which can be derived from intensifying productivity (3.1 tons of paddy rice per hectare in Cambodia compared with 7.5 tons per hectare in Vietnam[3]) and expanding land use (only 68% of total arable land and permanent crop land areas in the country is currently utilized). More than 70% of the agriculture holdings use agricultural produce mainly for household consumption.

The Royal Government of Cambodia (RGC) has identified the rice sector as the key area for agricultural development in Cambodia, with a target of 1 million tons of rice exports by 2015. Rice farming activity is the main agriculture activity in Cambodia. In 2012, 3 million hectares of land was under cultivation and paddy production exceeded 9 million tons (Table 11). Official trade statistics records 192,600 million tons of rice exports in 2012. In addition to rice, other cereals are exported abroad. In 2011, the quantity of cereals exported was roughly 180 thousand tons.

[1] World Bank

[2] Cambodia Socio-Economic Survey, 2012. However, in the Cambodia Labor Force Survey 2012, the survey finds that only 31% of labor force was employed in the agriculture sector.

[3] Ministry of Agriculture and Rural Development's Plant Cultivation Department

Table 12. Cambodia: Evolution of Trade Quantities for Selected Commodities

Agricultural Commodities	Quantity (1,000 T)				Annual Growth Rate (%)		
	1996	2001	2006	2011	1996-2001	2001-2006	2006-2011
Cereals exports	10.4	7.1	38	180.3	-7.35	39.86	36.53
Rice exports	5.6	7.0	5.2	174	4.56	-5.77	101.79
Coarse grain exports	4.8	–	32.6	6.3	-100	n.a.	-28.02
Cereals imports	41.8	59.8	65.2	44.4	7.42	1.74	-7.4

Source: FAOSTAT, FAO of the UN, http://faostat.fao.org/site/

Two main strategies have been proposed to develop the rice sector, namely productivity enhancements and commercialization (from subsistence to commercial agriculture). A range of both quick-win as well as medium and longer-term policy measures have been proposed and initiated to improve the level of productivity and commercialization of the sector.[4]

It is clear that the success or failure of the actual policies will be affected by the willingness and ability of farmers to invest in the farms themselves. Land productivity enhancements require investments in high yield seeds, irrigation, modern management techniques, and fertilizer, possibly together with investments in land or farmer cooperation to increase the effective scale of the farm. These investments involve significant commitment from farmers, which are mostly poor and living on small farms.[5]

The Farmer Investment Climate 2013, which looked primarily at rice production, found that the top five investment climate factors most frequently mentioned by farmers as interferences are all related to the production side: 1) rainfall, floods, and/or droughts; 2) lack of irrigation facilities, allowing for only one cropping per year in the majority of places; 3) high price of commercial fertilizers and pesticides; 4) changing climate patterns; and 5) lack of financial capital.[6] Absence of functioning irrigation remains a major constraint (just 32% of agriculture holdings use irrigations on the parcels[7]). In addition, there is a need for improved seeds that are adapted to the diverse regional characteristics (e.g. soil type, weather) that are resilient to crop diseases, pests and changing climate patterns. This survey also clearly revealed the low knowledge on best agriculture practices among the farmers.

For the commercialization of the rice subsector, in addition to the limited volume of rice surplus that enters the market, the main constraints include: 1) weak bargaining power of individual farmers with buyers (millers, collectors); 2) financial pressure of farmers to sell immediately at harvest at any price; 3) limited funds for millers to purchase paddy; 4) limited milling capacities; and limited storage facilities.

In addition to crop production (specifically paddy rice), rural households also engage in livestock, poultry and aquaculture. The Census listed 2.7 million cattle, 27.8 million chicken, 5.1 ducks and 1.5 pigs. 84% of the agricultural holdings also operate aquaculture activities.

In the foreseeable future, the agriculture sector will continue to be important for rural households because land is the catalyst that binds and webs the economic, social, cultural, and political ties in rural Cambodia. First and foremost, in the perspective of rural households, land and subsistence rice farming is their lifeline. It is their source of sustenance. It is their security, even if all else fails. It is their only safety net in the event of economic and financial crisis. Interviews with garment workers during the global financial crisis revealed the importance of subsistence farming during times of crisis. Garment workers said that in order to cope with the fall in their wage earnings due to reduced overtime opportunities,

[4] Kang, C. and Liv, D., 2013b
[5] Kang, C. and Liv, D., 2013b
[6] Kang, C and Liv, D., 2013b
[7] MOP, 2013

they relied heavily on rice from their parents' farms to cut costs and stay afloat. Even when family members are released into paid employment, there is always some other family members remaining in the village to engage in subsistence farming. When there are no other alternatives, migrant workers are often called back home to help.[8] For this reason, the most important economic task is to secure subsistence farming activities.

But the value of land to a rural household goes beyond economics. Land is their foundation of life. It is what keeps farmers in their community and links them with their neighbors. It is their identity, their family lineage, and their heritage. Even when rural people migrate to work in other locations, it is their intention to return home once they have a strong financial basis. Even with large-scale commercial agriculture emerging in Cambodia, the close link of rural households to land will not change (at least not in this generation). Farmers will likely not part from their land but rather design or adapt their livelihood strategies to keep safe their only source of security. It is not a matter of choice for them, but a necessity. Land is not only their safety net, but also the center of their social, cultural, and political life. Only when there is a strong and proven public social security system in place, as in the developed countries, will the strong bond between rural households and land gradually loosen.[9]

[8] Kang, C. and Liv, D., 2013a.
[9] Kang, C. and Liv, D., 2013a.

2. Microfinance Condition

2.1 History and Developments

The microfinance sector in Cambodia has been a priority in the RGC's rural development policy since the 1990's. Financial inclusion for the poor, rural population was the bedrock of the industry from the start. As of date, it has evolved into a very well managed sector, with an extremely low portfolio at risk ratio, less than 1%, and good profitability ratios.

Microfinance in Cambodia emerged in the 1990s from non-profit microcredit projects initiated by international donors, NGOs, and institutions to provide the rural population with access to formal forms of financial services. These initiatives combined provision of microfinance services (savings and credit mainly) with non-financial social services such as awareness and assistance on health, agriculture and development issues. From the start, a deliberate strategic concern for microfinance institutions (MFIs) was to achieve financial sustainability in line with the expectations of its shareholders, while meeting its social goals of outreach to the poor and included social responsibility

Financially, the MFI sector has performed remarkably. As of the second quarter of June 2014, there are 42 MFIs[10] in operation with a gross loan outstanding portfolio of over USD1.6 billion and a client borrower base of over 1 million people, from just USD3 million in 1995 with 50,000 borrowers.

The PRAKAS on Licensing Microfinance Deposit Taking Institutions issued in December 2007 by the National Bank of Cambodia (NBC), which grants eligible MFIs to receive deposits from the general public, is another favorable factor that will enable the MFI sector to continue growing by providing MFIs with cheaper sources of funds. Seven MFIs have received a deposit license, mobilizing USD653 million USD and 1,021,923 depositors as of June 2014.

Parallel to the rapid growth and high financial performance of the MFI sector, there are concerns that the sector is drifting from its social mission and at risk of over-indebted its clients. The increase in the number of MFI operators to a current 42 institutions, all with a focus on portfolio growth, has resulted in increasing market penetration. For some years now, there has been a growing concern that the increase in competition among MFIs may be leading to cross-lending and possibly, the over-indebtedness of borrowers. On the other hand, proponents point out that the intense competition is an impetus that aids MFIs in fulfilling its mission to reduce poverty effectively through improving the quality of services and products, as well as increasing loan sizes to demand.

In response, the Credit Bureau Cambodia (CBC) was launched in 2012 to give financial institutions valuable new access to information about credit worthiness of potential borrowers, improving efficiency and loan quality. The CBC consolidates credit information from all formal financial institutions and reveals situations of overlapping loans, thus helping to cut down on the number of potential bad loans on banks' and MFIs' books. This service matches with the growing needs of financial institutions to avoid over-indebting borrowers. Before the Bureau's existence data on a customer's credit history was not shared among lenders and many people were in the habit of borrowing from more than one institution. However, some have criticized the prices of credit report from the CBC as being too high. For loans under USD500, a report costs USD0.20, and jumps to USD3 for loans over USD500. Sathapana MFI pays around $18,000 per month for credit reports on its customers.[11]

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[10] The Cambodia Microfinance Association (CMA) membership includes 37 MFIs, including ACLEDA Bank, and 5 NGOs as of June 2014. The loan amount here excludes ACLEDA bank and the 5 NGOs.

[11] Heng S., 2012

In addition to the private microfinance industry, the Rural Development Bank (RDB) also provides rural finance. RDB was established by the Royal Government of Cambodia in 1998 as a public and autonomous enterprise and is authorized to operate as a specialized bank, whose main objective is to service and refinance loans to licensed financial institutions. The RDB has no branch network, 68 staff (2012) and a loan portfolio of USD61 million to 111 clients (01/2014). However, this activity only represents 12% of the RDB's loan portfolio to date. Its activities have been extended by sub-decree in 2007 to include implementing of development projects upon request from implementing partners, where such projects may not be implemented by a microfinance operator, funding the implementation of special development projects from the Government or other special development projects upon authorization of the MEF. The RDB thus now finances partners associations, development communities and MSMEs that take part in rural development in Cambodia in this framework.

2.2 Market Penetration

Market penetration is the extent to which a product or service is bought by customers in a particular market. For our purpose, market penetration is defined as the percentage of total loan accounts relative to the total number of households. The market penetration thresholds used in this study are based on existing benchmarks used by the MFI industry in Cambodia. We have defined the thresholds as:[12]

- If 0%, no service.
- If less than 25%, low penetration.
- If 25-50%, moderate penetration.
- If 50-75%, high penetration.
- If 75-100%, very high penetration.
- If greater than 100%, saturated market.

At the national level, the market penetration rate of all MFIs is 61% as of June 2014 (Table 13). However, according to experts, multiple borrowing is practiced by 18% of all MFIs clients. Taking this into account, the adjusted national market penetration is 50%, indicating that the industry is at high penetration. In reality, this rate may be even smaller because some clients take out more than two loans simultaneously. Among the big eight MFIs[13], which represents 76% of the market share in terms of borrowers and 63% of total loan portfolio, the adjusted market penetration rate is 38%.

Table 13. Market Penetration at National Level

	As of Jun 2014
Total Borrowers (All MFIs)*	1,961,632
Total Households	3,190,563
Market Penetration (All MFIs)	61%
Net Borrowers: 18% of MFI borrowers have ML**	1,608,538.24
Adjusted Market Penetration (All MFIs)	**50%**
Total Borrowers (Big 8)	1,497,251
Total Households	3,190,563
Market Penetration (Big 8)	47%
Net borrowers: 18% of MFI borrowers have ML**	1,227,746
Adjusted Market Penetration (Big 8)	**38%**

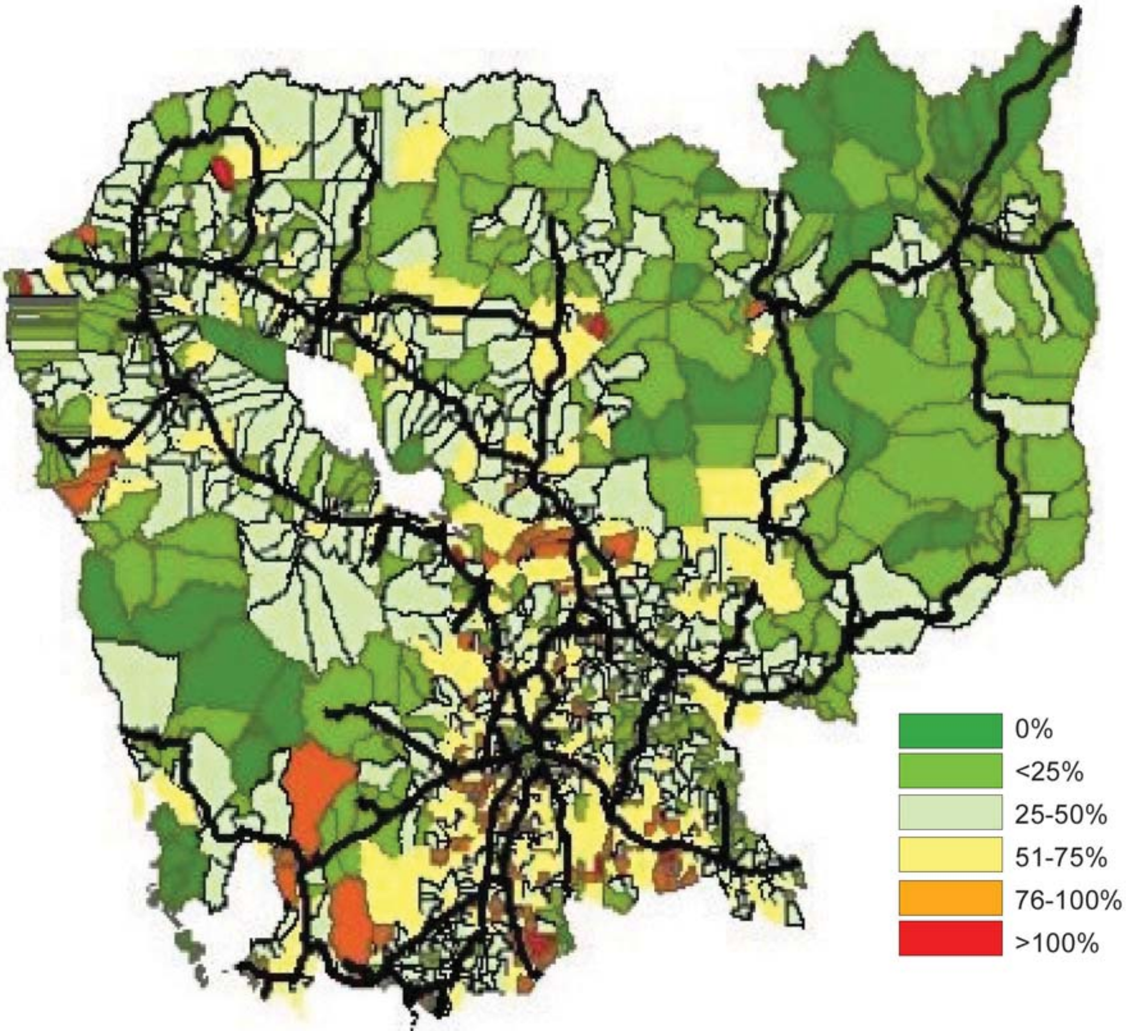
Notes: * Includes 37 MFIs, including ACLEDA Bank (Small Loan), and 5 NGOs as of June 2014.
** Based on expert opinion.
Sources: CMA as of June 2014, Cambodia Socio-Economic Survey 2013

[12] Liv, D., 2013

[13] The "big 8 MFIs" represent 76% of the market share in terms of borrowers and 63% of total loan portfolio, and includes: Amret, AMK, Prasac, Vision Fund Cambodia, TPC, HKL, Sathapana, and Kredit MFI. Source: CMA

Figure 2 is a map of the market penetration rates by the commune level. Due to the absence of village level maps in Cambodia, it was not possible to map the penetration rates at the village level but only at the commune level, which is the administrative category immediately after villages. The map illustrates that the vast majority of communes in Cambodia are still in the green (low levels of market penetration), with only a few specks of red (high level of penetration). The areas with relatively higher market penetration tend to be located near the national roads (denoted by the black lines). Indeed, this is because the road infrastructure in Cambodia is still rudimentary, making access to remote areas still a challenge for MFIs.

Figure 2. Market Penetration of Microfinance Institutions at the Commune Level



Source: Liv, Dannet. 2013. *Study on the Drivers of Over-Indebtedness of Borrowers in Cambodia: An in-Depth Investigation of Saturated Areas.* Based on Consolidated Village-Level Data from 8 Partner MFIs (Dec 2011). Market penetration is defined as the percentage of total loan accounts relative to the total number of households.

2.3 Microfinance in Agriculture

Among the top nine microfinance providers in Cambodia, agriculture remains an important and strategic sector, representing approximately 38% of total loans valued at USD834 million. For some MFIs, the sector represents more than half of their loan portfolio (TPC, AMK, VisionFund, Amret). The bulk of agriculture loans are disbursed for rice crop production. Other agriculture investments include rubber plantations, cassava, pepper, maize, animal husbandry, rice mills, and fisheries.

Table 14. Agriculture Microfinance of the Top 9 Microfinance Institutions in Cambodia

No.	Organization	No. Office	All Loans USD m	# Borrowers	Average Loan Size	% of LP in Agriculture	Agr Loans USD m
1	ACLEDA (Small loans only)	252	713	294,540	2,420	20	142.58
2	PRASAC	171	470	225,822	2,082	31	145.74
3	AMRET	134	258	326,115	791	50	128.93
4	SATHAPANA	126	220	84,490	2,607	32	70.50
5	HKL	138	195	91,992	2,117	44	85.68
6	TPC	52	92	165,013	559	95	87.69
7	KREDIT	68	87	82,073	1,062	45	39.21
8	AMK	138	86	322,085	268	80	68.94
9	VisionFund	94	73	199,661	364	90	65.50
Total of Top 9 including Acleda		**1,173**	**2,194**	**1,791,791**	**12,270**	**–**	**834.76**
Percentage of Agriculture loan in total loan							**38%**

Sources: Based on interviews with MFIs and reviews of annual reports (2014).

3. Latest Strategies and Tools for Agriculture Finance

3.1 Changes in Loan Features and Processes

Over the years, microfinance products and services for the agriculture sector have evolved to meet the changing context of the sector. In recent years, the agriculture production cycle has developed. In some areas, farmers are able to implement 2 crops per year due to improvement and extension of irrigation systems. Furthermore, the costs of inputs, including fertilizers, pesticides, land and labor have all increased, raising the cost of production. Higher labor costs in combination with a shortage of rural labor as employable persons migrate to work in urban areas and abroad, has encouraged mechanization even on smallholder farms. The loan features and processes that have been tweaked over time to meet these changing needs and conditions are discussed below.

Introduction of Balloon Loan: Around 2008-2010, a number of MFIs introduced the balloon loan (also know as a bullet loan or flexible loan) as a strategy to adapt to the seasonality and cyclicality of agriculture income.

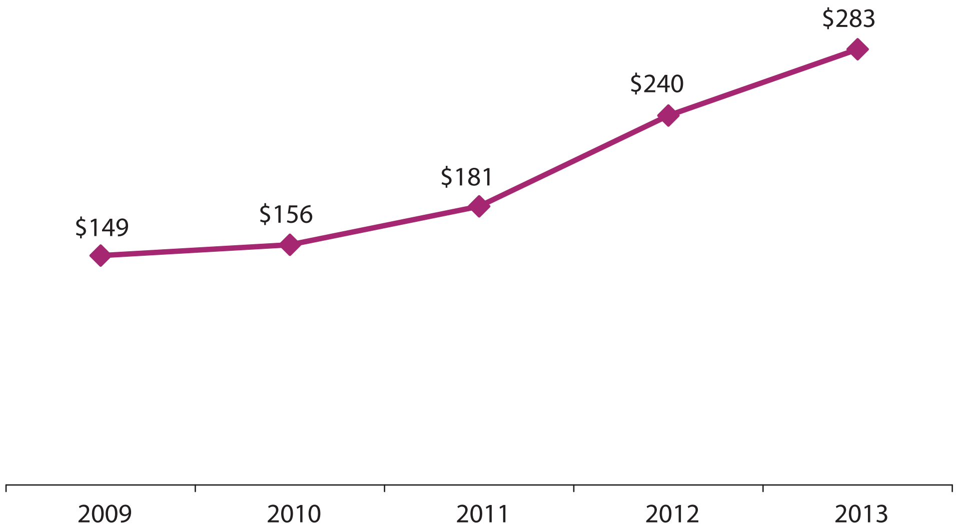
Prior to this, borrowers only had the option of a standard loan with inflexible repayment schedules that required both interest and principle payments on a monthly basis. This arrangement was not in harmony with the occurrence of investment returns of the farmers. Typically farmers take out a loan at the start of planting season when they have high expenditures and no revenue, and thus, a negative cash flow. Revenue is not generated until a few months later at harvest time. The mismatch between loan repayment and cash flows can create financial strain for poor farmers and put them under pressure to speed up the production process. This scheme was used by MFIs in fear that repayment schedule flexibility would jeopardize repayment quality.

With balloon installments, farmers make only interest payments monthly, while the principle can be paid at maturity when the commodity is sold. Another option is the semi-balloon method, which the borrower pays interest only for the first half of the term, then pays 50% of principle, followed by principle and interest installments until end of term. Other variations exist including principle installments at intervals of every 3 months, 4 months or 6 months.

A balloon loan has the advantage of very low interest payments during the early months of negative cash flows. Since most of the repayment is deferred until the end of the payment period, the borrower has substantial flexibility to utilize the available capital during the life of the loan. However, the major issue with this type of loan is that the borrower needs to be self-disciplined in preparing for the large single payment, since interim payments are not being made.

Larger Loans. Many MFIs have also recently increased the loan size for individual agricultural loans for two reasons. Firstly, the targeted clientele demanded more funding to cope with the increase in production costs. Figure 3 shows that the average cost of producing wet season rice paddy (which is practiced by 90% of farmers), has continuously increased over the years at an average rate of 18% per annum. This figure reflects the cost for the average smallholder farmer with around 1-1.5 hectares of land, which was USD283 in 2013. Such farmers also tend to purchase inputs based on their limited funds, and thus, utilize less inputs than standard, such as seeds, fertilizers, etc. The cost for larger farms, cultivation of other crops, and farmers trying to increase their commercial activities will be higher. According to interviews with MFIs, KHR6 million (about USD1,500) is sufficient for cultivation of cassava or maize on 2-3 hectares.

Figure 3. Average Cost of Production of Wet Season Rice Paddy Farming



Source: CSES

Secondly, MFIs sought to capture the next tier in the market, consisting of larger, commercial farmers with 2-3 hectares of land. The traditional smallholder farmer typically own and operate less than 1.5 hectares of land. Sathapana increased their maximum loan size from USD10,000 to USD30,000 in 2010 due to demand from clients. Similarly, Kredit MFI boasted their loan size from USD5,000 to USD10,000. Amret offers up to USD15,000 for agricultural loans.

Customized Repayment Schedules. Traditionally, the repayment capacity of microfinance borrowers is assessed using the average cash flow of the household. Depending on the MFI, it may be projected or based on past income. Based on the information and the loan terms, the repayment schedule is then generated by the MFI. Under the AgriFin Program, Amret is piloting a new method based on the actual/project cash flow of borrower on a monthly basis. However, the unique improvement is that the repayment schedule is then negotiated and customized with borrowers based on the detailed cash flow analysis. The installment amounts and number of installments are all negotiated with the client and can be as little or as high as the client prefers. For clients, this methodology increases their flexibility. For the MFI, however, this method reduces their productivity. According to interviews with Amret's management, the credit officer can achieve only 6 assessments per month on average compared to 11-12 clients in the past because they need to collect more detailed information. In addition, because all schedules are customized, it takes more time to enter the data into the MIS (before it took only 2-5 minutes, now it takes around 15 minutes).

Agricultural Asset Acquisition Loan. In recent years, many MFIs have started to differentiate their loans from the general-purpose loan. Among the various loans, the agriculture asset acquisition loan is one of the relatively newer ones, which can be used by borrowers for purchasing agricultural equipment such as tractors and harvesters, as well as to purchase land for cultivation. The term on these loans tend to be longer than the standard loan, 3-4 years, and the loan amounts significantly higher. For instance at TPC, the agricultural equipment loan allows for up to USD35,000.

3.2 Summary of Existing Agricultural Loan Products and Services

From the generic group loan and individual loan products introduced two decades ago, there exist a number of microfinance products and services catering specifically for the agriculture sector now. This section provides a brief overview of the different products and services in the market, along with a rapid analysis on why it was introduced. Table 15 summarizes the main products offered in the prevailing market and the key loan features such as maximum loan size, duration, purpose and collateral requirements.

Table 15. Summary of Exiting Agricultural Loan Products and Services

Product	Max Loan Amount (USD)	Max Duration (months)	Purpose	Collateral
Group Loan	500	12	Working capital, consumption	Social
Seasonal Loan	20,000	24	Working capital for agriculture activities	Physical
Credit Line Seasonal Loan	1,000	12	Multiple purpose (more than 1 time in the cycle) in agriculture sector	Physical
Agriculture Equipment/ Asset Acquisition	35,000	36-48	Purchase of agriculture assets such as tractors, harvesters	Physical
Agricultural Equipment Leasing	25,000	36	Purchase of agriculture assets such as tractors, harvesters	Need only proof of income

Note: This data represents the industry situation and may vary from MFI to MFI.

Group Loans and Village Banks

Group loans and village banks were the flagship product of practically all MFIs that were set up in 1990s, following the example of the Grameen model. The Group Lending model requires borrowers to form or join a group of 2-5 persons. These groups are organized into "village or community associations", with 3 or 6 groups to an association. Members meet regularly to discuss financial and non-financial issues such as health, economic activities, etc. The group and association model encourages a culture of financial responsibility where peer-support and joint liability leads to high repayment rates. The advantage for borrowers, especially the landless poor, no physical collateral or guarantors is needed; loan is based on social guarantee. The disadvantage, however, besides the need to form or join a group (thus implying the presence of social capital), is the relatively smaller loan sizes (the maximum amount is USD500 per member, depending on the MFI).

To date, with the exception of a few market leaders (AMK, Amret, and TPC – all of which have over 50% of loan portfolio concentrated in group loans), this product is becoming less common. There are a number of reasons behind this evolution. On the demand side, many rural borrowers who started out as group loan members have graduated to individual loans. After having gained experience with borrowing from a formal institution, they are more aware and confident to borrow as an individual, of which they can take out larger loans. On the supply side, provision of the group loans has higher transaction costs than for individual loans, as the loans are smaller whilst the number of clients, paperwork, and workload is higher. Newer market entrants find it hard to break even with this model.

Seasonal Loans/Agricultural Loans

Many MFIs now have a separate individual loan specifically for the agriculture sector, typically referred to as the seasonal loan. The target clients are individuals with agricultural activities including rice paddy, livestock, aquaculture, and other cash crops such as cassava, maize, and rubber. The loan purpose is for financing working capital. Some MFIs also extend the loan to businesses along the agriculture value chain such as traders and rice millers (although rice millers need larger funding and are commonly not the target of MFIs). Depending on the MFI, the profile of farmers can vary from purely subsistence farmers, to smallholders with less than 2 hectares, all the way to larger, commercial plantations with over 3 hectares of land. The maximum loan size indicates which MFI targets which type of farmer. The maximum loan size in the industry at the moment is USD20,000 for seasonal loan for up to 2 years term. Physical collateral is usually required, such as land and property titles. The unique feature of the seasonal loan from the traditional individual loan is the balloon payment option, as mentioned previously. The balloon payment scheme enables the borrower to defer principle payment until maturity, while only paying interest monthly.

Seasonal Credit Line

AMK is the pioneer of this product and is currently the only MFI offering it to the market. This product targets individual clients who need funding for agricultural purposes. The borrower can access multiple drawdowns during the cycle with a maximum of 12 months term. The cap on the loan is USD1,000 and can be borrowed in Cambodia riels, Thai baht and US dollars. The interest rate on USD loans ranges from 2.3-2.7% per month, and varies by loan size, and whether it is serviced back office or front office.

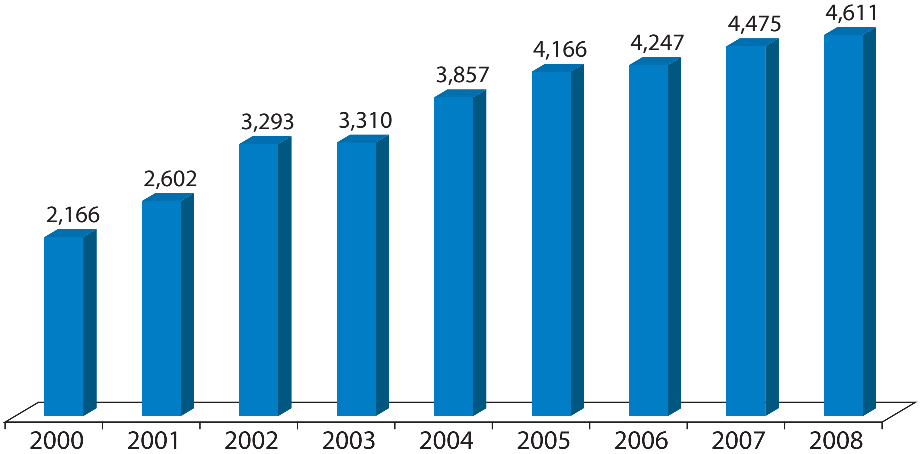
This product is interesting, especially in the context of rural Cambodia, because it is very common that rural households underestimate their investment needs for a project. They run out of working capital during the production cycle and need to scramble for additional funding in order to complete their project, which in turn, can affect the quality of their returns. The credit line provides flexibility for farmers and is one of AMK's most popular products.

Agricultural Machinery and Equipment Loans

Some MFIs recently rolled out a separate Agricultural Equipment Loan (also sometimes referred to as the Agricultural Asset Acquisition Loan), which enables farmers to purchase assets for agricultural businesses or activities that generate seasonal income such as tractors, harvesters, water pumps, land, etc. Some MFIs do not have a separate loan for this purpose but allow it under the seasonal loan. Borrowers can take out a maximum of USD35,000 with this loan type, with term of 4 years tops.

According to interviews with management at key MFIs, there is a growing demand for this type of loan, even among smallholder famers with as little as 1-1.5 hectares of land. Figure 4 illustrates the increasing number of tractors in Cambodia, growing by twofold from just 2,166 tractors in 2000 up to 4,611 tractors in 2008.

Figure 4. Number of Tractors

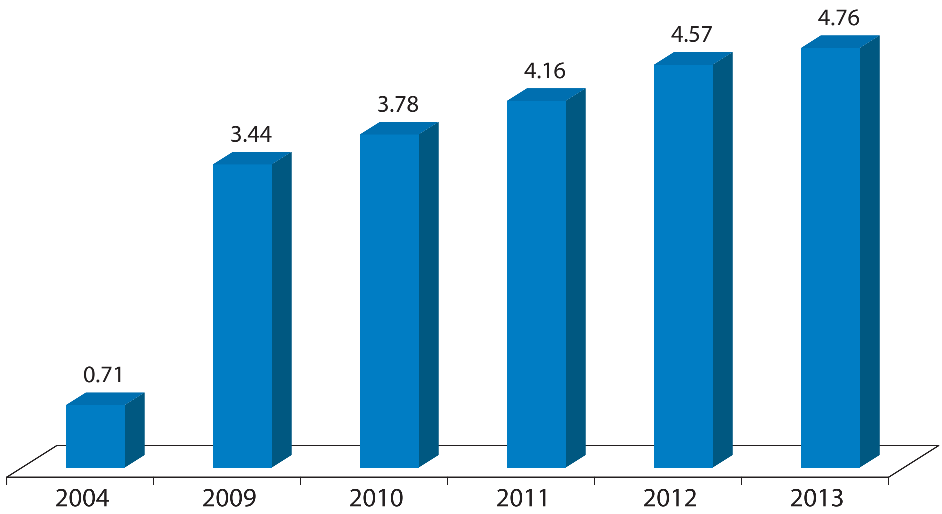


Source: MAFF

This upward trend is expected to continue in the upcoming years as farmers transition to mechanization to cope with a shortage of rural laborers and the consequential raises in agricultural wages. Some rural laborers have moved out of the agricultural sector and into the non-agricultural sector. The increase in rural to urban migration, as well as migration abroad, can mislead one to think that there is a labour surplus in rural areas. Statistics and interviews with farmers tell us this is not the case and that there is a shortage of workers in the agricultural sector. In reality, migrant workers tend to come from households with surplus labour or households with little or no land for farming. They represent a surplus at the household level, but not at the aggregate level. Consequently, their movement out of agriculture has put pressure on wages in the sector.[14]

Data shows that agricultural wages increased sevenfold between 2004 and 2013. Using the data from the Cambodia Socio-Economic Surveys (CSES), the estimated daily wage for an agricultural worker rose to KHR19,029, equivalent to USD4.76, in 2013, up from just KHR2,677 (USD0.71) in 2004, as shown in Figure 5. The increase in wages affects not only the wage bill for large-scale commercial plantations, but also the subsistence farmer, who must hire extra workers at planting and harvesting times. On average, labor costs represent 18% of total production cost during wet season and 13% during dry season.[15]

Figure 5. Estimated daily wage of agricultural workers



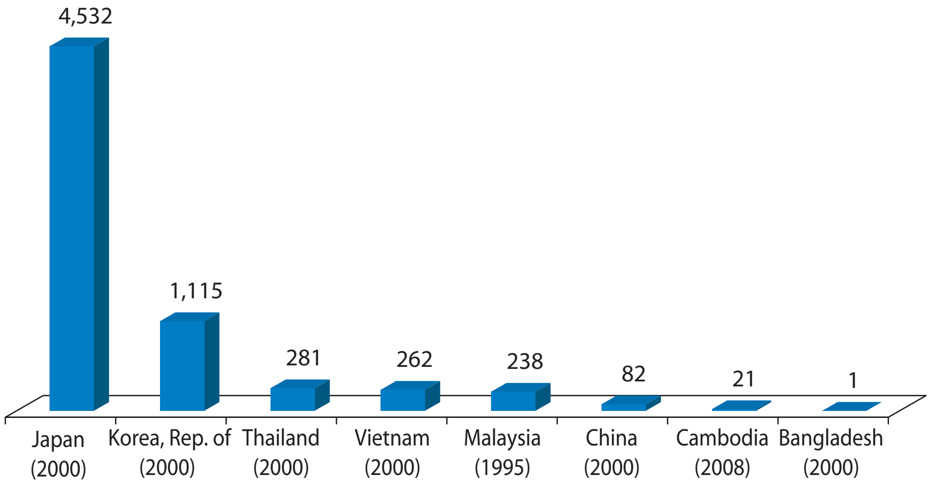
Source: Calculated based on CSES data

Another point to note is that the density of tractors per square kilometers of cultivated land in Cambodia is still far below the levels of other countries that leading agriculture. As plotted in Figure 6, the density of tractors in Cambodia is only 21 compared to 82 in China, 262 in Vietnam, 281 in Thailand and etc. As the agriculture sector develops, it can be expected that the demand for machinery and equipment will grow as well and this type of loan will be crucial.

[14] Kang, C. and Liv, D., 2013b.

[15] CSES

Figure 6. Tractors per 100 square kilometers of cultivated land



Sources: Data on Cambodia based on statistics from MAFF and CSES 2009; other countries based on World Bank indicators

Leasing

Leasing and micro-leasing of equipment is a new industry in Cambodia. It mainly provides finance for motorbikes and cars but also has a small agricultural equipment activity. As of date, there are a few leading companies in the market. Incumbent MFIs are considering leasing but are presently worried because of the absence of a regulatory framework for agricultural equipment and leasing. For land, buildings, car and motorcycles, there are titles that legally recognize ownership. But there is no titling system for agriculture machines such as tractors and harvesters, which makes it challenging to monitor and secure sales transaction. Nevertheless, some MFIs are also looking into entering this market soon, such as Aeon Microfinance. The main leasing companies now are:

GL Finance

GL Finance Plc. started its operation in Cambodia in May 2012. It is a subsidiary of GL Holding in Singapore, which has commercial presence in Thailand and Cambodia. The strategy of the company is to establish partnerships with market-leading brands (Honda, Kubota) – linking their leasing products with specific products and distributor. GL Finance installs its retail outlets directly within its partners' dealers. Currently it partners with 46 official Honda dealers throughout Cambodia. Today, GL Finance has presence in nearly every of the Kingdom's provinces, with 250 employees. Leasing activities include motorcycles (Honda) and farming equipment (Kubota). For farming equipment: GL Finance offers financing on tractors and combine harvesters in all partnering Kubota dealers – Kampong Thom, Pailin.The interest rates on agricultural machines are 1.35% per month for tractors and 1.8% per month for combine machines. Term ranges from a minimum of 12 months to 36 months. Personal collateral is not required, just proof of income.

Mega Leasing

Mega Leasing PLC. is another leasing company recently established with the mission to enable Cambodian people to access credit solution in order to bring about sustained improvements to their living standards. Their current services covers motorbike loans, car loans and electronic equipment loans. Interest rates starts from 1.5% per month. The maximum loan size is USD5,000. Personal collateral is not required, just proof of income, with minimum salary requirement of USD100 per month.

RMA Agricultural Equipment Lease

RMA is another leasing company, which started its agricultural equipment lease in 2007. Associations, organizations, companies and individuals can apply for the leasing option (Hire-Purchase). RMA offers tractors and sugarcane harvesters. The conditions are the following: 1) 50% down payment, 2) interest rates between 1.5% and 2% per month, depending on equipment price and 3) duration of up to 2 years.

MyProperty

This is another leasing company operating in Banteay Meanchey. However, they have not officially received their leasing license. They provide leases on motorcycle loans, car loans and agriculture loans.

Credit for Farmers Organizations

Lastly, an interesting new development in the market is finance for Farmers' Organizations (FOs), which is currently being tested. FOs can be classified into four groups based on the level of formality and responsible government authority, as following:

- **Agriculture cooperatives** (AC): According to the Department of Agriculture Extension (DAE), which is the responsible authority for registering ACs, there are 486 ACs in Cambodia as of 2013, with 46,330 members. The total capital involved is $2,223,276, of which 65% is share capital and 35% is external support. Membership fees amounted to $35,931. The common activities of an agriculture cooperative, to varying degree, are: 1) buy and sell fertilizers/inputs, 2) buy and sell paddy rice (or other agricultural products), 3) savings-credit scheme and 4) management of rice bank.
- **Farmer Water User Communities** (FWUC): FWUCs are legal entities established to support agricultural water users to operate and maintain the irrigation systems. There are currently more than 300 FWUCs registered at the Ministry of Water Resource and Meteorology (MOWRAM) and a few are registered at the commune level. The legal base of FWUCs' operation is set by Circular No. 1, commenced in 1999 (and Prakas 306 of MOWRAM). The Circular recognizes FWUCs as a legal entity with the rights to make rules, enforce sanctions, have a bank account, loan money and enter into legal contracts.
- **Federations, Unions, and Associations:** These types of farmer organizations are registered with the Ministry of Interior.
- **Informal producer groups, savings group, and other groups:** In addition, there are a number of informal groups set up by donors and NGOs. These groups have different objectives, ranging from economic empowerment, gender, and poverty reduction.

The Royal Government of Cambodia, via the Supreme National Economic Council (SNEC), has defined a policy dedicated to the promotion of rice production and export. The "Support to Commercialization of Cambodian Rice Project" (SCCRP), funded by AFD, aims at supporting the implementation of this policy. One of the key components of the project is to improve access to finance for FOs, which is a major challenge the face to increase their weight in the value chain and grow their economic activities, primarily commercialization.

Due to their low level of formalization and to their limited capacity to provide real collateral, FOs do not easily access loans from formal financial institutions. Whereas farmers can individually access loans from MFIs to finance production (inputs), or can receive credit from rice millers or collectors for the same purpose – with the counterpart that they lose in bargaining power on prices–, commercial activities managed by FOs are currently not financed by formal institutions. This results in farmers having to sell their production at low prices with no possibility to wait for better sales opportunities. SNEC is working with HORUS Finance on an assignment to define adequate financing schemes for FOs commercial activities, which entails setting up and testing a guarantee scheme through the implementation of pilot operations.

4. Issues, Concerns and Constraints

This section explores some of the issues, concerns and constraints for growth in agriculture finance. These perspectives are based on numerous interviews with management at the leading institutions. The challenges for further growth and outreach in the future can be analyzed at three levels: 1) MFI, 2) client, and 3) regulatory.

4.1 MFI Level

Many of the big MFIs are mature in their industry with a strong understanding of their clientele and possess a wealth of knowledge on the appropriate systems and processes for sustainably delivering appropriate products and services to rural households.

Supportive Factors:

- Many MFIs view rural areas and the agricultural sector as their primary market. Going forward, internal policies such as exposure caps will not be a constraint because institutions and their leadership feel that the risk in the sector has decreased due to improved knowledge of farmers, increase in croppings per year, increase in foreign direct investment into the sector and government policies to promote. Indeed, a number of MFIs have increase the share of agriculture in their loan portfolio. For instance, Sathapana increased its cap from 5% to 25% on balloon loan type and Kredit recently upped from 30% to 45%.
- Another of non-government organizations are providing agricultural technical assistance to MFIs to enhance their ability to assess credit risk of farmers.

Constraining Factors:

- Affordable funding for developing and testing new products. Some MFIs mentioned that all of their funds are already committed for existing products and services. While they would like to develop new products specifically for the agriculture sector, such as leasing or micro insurance, the lack affordable funding to develop and test out these innovations.
- High cost of MIS systems that are appropriate for new agriculture products. A number of MFIs have upgraded their MIS systems, which has represented a huge investment, over USD1 million in some cases. Especially as the sector moves from standard products to more customized products to fit the needs and seasonality of the agriculture sector, a strong and real-time MIS system is vital. Larger MFIs will likely have no problem with this transition, but the smaller MFIs could encounter a cash crunch.
- Smaller MFIs have a harder time to achieve financial sustainability in this sector. Financial performance is low because smaller MFIs and new market entrants have a small client-base justapose to relatively high funding costs. Operation costs higher than industry benchmarks, productivity lower. Competitors are already strong in rural areas.
- Intensifying competiton and market saturation. As previously discussed, the industry is at a high level of market pentration, roughly 57% of market, but this has room to grow. The industry continues to grow rapidly with over 40 operators as of September 2014.

4.2 Client Level

Whilst still focusing on the agriculture sector, different MFIs target different clients. Some MFIs, specifically the group lending leaders with smaller average loan size, target smallholder farmers with 1.5 hectares or less. On the other hand of the spectrum, MFIs with larger average loan size, target more commercial farmers with land plots of 3 hectares or more. Both clienteles are important for the development of the agriculture sector.

Supportive Factors:

- Given the wide outreach of microfinance operators, reaching 94% of 14,073 villages in Cambodia, clients have very little trouble accessing formal financial products and services if they want it. As physical infrastructure continues to improve, accessibility will be even more enhanced.
- Rural households are more aware and confident about the borrowing and repaying process of MFIs.
- Demand for finance exists and will continue to grow as the agriculture sector develops and transform from subsistence-based to commericalization.

Constraining Factors:

- Agriculture is still a very risky sector prone to natural disasters and market fragmentation. Farmers lack modern agricultural technique and technology, information and despite the extensive efforts to dissemintate new methods, it is not widespread yet.
- Capital is not a big issue for farmers because a lot of alternatives in the market. The challenge is on getting a fair price for their commodities that can cover their increasing costs of production (fertilizers, risks, etc.). The market for some products are also not guaranteed. When there is an oversupply on commodities, prices fall and farmers have no bargaining power with traders. There exists no buying mechanism to stabilize prices for farmers. However, for farms will less than 2 hectares, the impact of this on their profitability is not major. But for farmers with 2 hectares and more, changes in price can greatly impact their repayment capacity.
- In addition, there is a need to change farmers' mentality and awareness about market ethics. Many farmers have a short term perspective and cheat on scales or mix poor quality products with bad quality. It is important to build awareness and practice of honest selling of good quality products.

4.3 Regulatory Level

The microfinance sector in Cambodia has been a priority in the RGC's rural development policy since the 1990's. The sector is regulated and monitored by the National Bank of Cambodia (NBC), which is the country's central bank. Financial inclusion for the agriculture sector remains a policy focus.

In July 2014, the NBC organized the first annual macroeconomic conference, which hadthe theme "Promoting Access to Finance and Maintaining Financial Stability". With the growing recognition by the regional and international community of the importance of financial stability, this theme was selected. Cambodia's rural development and credit needs were a key topic discussed, and viewed as a major contributor to inclusive economic growth, and poverty reduction.[16]

[16] http://www.nbc.org.kh/english/news_and_events/news_info.php?id=78

Due to the increasing entrance of new players into the industry and intensifying competition amongst MFI operators as well as intensifying competition between MFIs with deposit-taking licenses and commercial banks, the NBC recently introduced two regulations that will affect the operation costs of MFIs.

One such regulation is establishment of the Credit Bureau of Cambodia (CBC). MFIs are required to run a credit check on loan applicants. For loans under USD500, a report costs US$0.20, and jumps to USD3 for loans over USD500. Sathapana MFI pays around $18,000 per month for credit reports on its customers.[17]

Another new regulation requires microfinance operators to pay a license fee for all offices and branches, down to the village level. In the past, the license fee applied only to provincial level branches and higher. For instance, Chamroeun MFI use to pay only USD250 per year for licensing, but after the regulation, this amount jumped to USD20,000.[18] However, for the larger MFIs, the feedback is that this regulation will not affect their expansion plans because they are still able to be profitable with the additional costs due to their large client-base. For smaller MFIs, though, this will be a hurdle.

[17] Heng, S. 2012

[18] Based on interviews with Chamroeun MFI management, August 26, 2014.

5. Case Studies

This section provides three case studies of interesting, innovative tools and models specifically for agriculture microfinance that have been or are being tested by financial institutions in Cambodia. These projects highlight the importance of collaboration between MFIs and technical organizations, each utilizing their unique competitive advantages to serve the poor and improve their livelihoods.

Case Study 1: Planet Finance Agricultural Commodity Maps

One of the challenges in assessing agriculture loans is the seasonality of production and the mismatch between expenditures and revenues. To overcome this problem, PlanetFinance collaborated with various MFIs in Cambodia in 2012, including TPC and Kredit, to develop commodity maps for a number of agricultural products. PlanetFinance conducted the survey and designed the commodity profiles for five items: bakchhoy, pig raising, duck, chicken and rice. The profiles show the expenditures, revenues and profitability of the activity given a certain land size, such as 1 hectares. The maps only cover selective provinces at the moment. In addition, PlanetFinance also provided training to credit officers on how to use the commodity maps for making loan assessments. According to TPC, "These maps are an indispensable part of the loan assessment process now, serving as a benchmark, now and TPC has regularly updated the data using the template."

Case Study 2: TPC and USAID Loan Guarantee for Agricultural Finance

As a strategy to incentivize financial institutions to increase agriculture finance, USAID launched a loan guarantee project in 2012. TPC is one of the partner MFIs. The project covers four provinces: Pursat, Battambang, Siem Reap and Kampong Thom. The guarantee scheme is applicable for the agriculture value chain (farmers, traders) and covers 50% of all loans. In the project, TPC works with the HARVEST Project. HARVEST provides technical training to credit officers as well as training to potential clients (specifically farmers in aquaculture). The guarantee is applicable on a maximum of USD2.7 million of loans. As of date, TPC has disbursed USD2.3 million. The project is closing at the end of this year with the possibility of extension currently under consideration.

Case Study 3: Amret and Agrifin Program

AMRET is piloting an Agrifin Program aimed at improving its services to farmers and developing its activity with agriculture. So far, this Program has not worked with farmer organizations. It is in the process of developing partnerships to diversify its offer. The program started in February, 2013, and is supported by the World Bank with matching funding by AMRET.14 branches are involved in the first two pilots started in July and August, 2013, in Kampong Cham, Kandal, Takeo, Battambang and Banteay Meanchey provinces. 18 specialized agri-credit officers and 14 hybrid credit officers manage both Agrifin and non-Agrifin loans. A dedicated AgriFin unit in the head office supervises their activities are supervised. As at Jan 2014, 416 loans had been disbursed under the Program with a total of USD2.5 million. Loan conditions under Agrifin are:

- 1.2% to 1.9% interest rate per month depending on loan amount (USD5,000 to over USD15,000).
- Maximum tenor is 36 months
- Standard collateral requirements, i.e. 150% of loan value as main collateral made up of soft or hard land titles, plus 50% secondary collateral for Individual loans for which moveable assets are accepted.

A third pilot is due to start in March 2014 and roll out in the whole network is planned to be complete by end of 2014.

A client satisfaction survey was carried out in July 2014. Accordingly, a majority of Amret's AgriFin credit borrowers are satisfied with the product features, commenting that it is more flexible and fitting to their needs. Only price was a major dissenting topic, with some borrowers requesting lower interest rates.

6. Conclusions

The IFAD supported APRACA FinServ Access Project aims to determine how such financial support is accessed by rural people especially poor people who are the most deprived sector in development. This study documents the development and present condition of microfinance in agriculture in Cambodia.

Farmers have high accessibility to microfinance in Cambodia. There are 42 microfinance operators in the country, with coverage in 94% of 14,073 villages. Incumbent MFIs are mature and experienced players who understanding their market. Many new innovative products and services have been developed, or are currently being developed and tested. These new products have been customized to increase flexibility of farmers. Financial inclusion has expanded to not only smallholder farmers (the traditional focus of MFIs), but larger farmers with 3-10 hectares of land who were underserved by commercial banks also. Affordable financing for testing such new products could speed up the process and promote even greater outreach.

Demand for agricultural finance will likely continue to increase as the sector develops in combination with other factors such as higher production costs, mechanization and increase in cropping from one to two times per year.

Based on discussions with practitioners and industry experts, the current trend in the MFI industry is one moving away from the provision of standardized loan products and services towards more customized products, driven on one hand by stiffer competition and on the other hand, the social mission to develop appropriate products and services that improves the economic standards of the rural poor. Indeed, a number of the MFIs have pledged to the Smart Campaign, which is a global effort to unite microfinance leaders around a common goal: to keep clients as the driving force of the industry. "Appropriate product design and delivery" is one of the seven core principles.

What could this trend mean in terms of the risk exposure of the industry? On the one hand, it could be argued that designing products that are appropriate for clients, especially related to their cash flow patterns, could help ensure less financial stress on clients and increase their repayment capacity during the loan cycle. Critics, on the other hand, may point out that increasing the flexibility of loan products may cause an erosion of financial disciple, especially in the case of greater loan size mixed with balloon loans. As of date, the industry has been managing this risk very well, with extremely high repayment rates. Can this be maintained in the long term?

Part 3

India Microfinance in Agriculture

Alok Kumar De

1. Introduction

During the last decade India has emerged as one of the global economic power houses with a current GDP of nearly US$ 2 trillion. The GDP growth rate has made a very rapid stride from a moderate 5.7% during ninth five year plan period (1997-98 to 2001-02) to 7.6% in tenth plan (2002-03 to 2006-07) and to 8% during eleventh plan period (2007-08 to 2011-12). The percentage of population living below the poverty line has also declined at the rate of 1.5% point per year in the period 2004-05 to 2009-10, twice the rate at which it declined during 1993-94 to 2004-05. Though the Indian economy has shown strong resilience against the global economic slowdown of 2008, still the slowdown has left its mark on the Indian economic growth which slowed down to 6.2% in 2011-12 and is one of the major reasons that the tenth plan target of 9% growth could not be achieved.

Keeping in view the weak global economy, the twelfth plan estimates an average growth rate of 8% for the Indian economy over the entire plan period of 2012-17. The 12th Plan document recognizes that the objective of development is 'broad based improvement of economic and social conditions of our people' and sets the vision for 2012 to 2017 as 'Faster, Sustainable and More Inclusive Growth', where the focus would not only be on the growth of GDP but also on inclusiveness. And to achieve this, the plan specifically underlines the importance of agriculture sector and sets a target of 4% growth in agriculture sector during the plan period.

2. Agriculture and Rural Development Scenario in India

Though historically India is an agrarian economy, over the last few years there is a rapid decline in contribution of agriculture to the GDP of the country.

Table 16. Contribution of agriculture to the GDP of India

Plan	Share of agriculture in the economy	Growth rate of agriculture and allied sector (All figures based on 2004-05 prices)	Growth rate of total economy
Ninth Five-Year Plan	23.4	2.5	5.7
Tenth Five-Year Plan	19.0	2.4	7.6
2007-08	16.8	5.9	9.3
2008-09	15.8	0.1	6.7
2011-12 (Rev Est.)	14.1	3.6	6.2
Eleventh Plan (2007-08 to 2011-12) Average	15.2	3.7	8.0

Source: 12th 5-Year Plan, Volume II. Planning Commission Government of India (2013).

From the above table it can clearly be seen that the share of agriculture in the total GDP has come down from 23.4% during the Ninth Plan to 14.1% in 2011-12, though the sector has grown at a faster pace during the same period. Between the Ninth and Eleventh Five-Year Plan, the growth rate of agriculture sector has varied from 2.4% to 3.7% per year. But the total growth rate remained impressive because the growth rate of other sectors has been much higher than that of the agriculture sector.

Though the agriculture sector contributes only about 15% of the country's GDP, more than 50% of the population is still dependent on agriculture for their livelihoods. Therefore, the importance of agriculture sector for creating employment cannot be underestimated. Recognizing this, in the 11th Five-Year Plan of Government of India, 7.33% of Gross Budgetary Support (GBS) was allocated to Agriculture and Water Resources Sectors and it has been increased to 7.96% of the GBS for the 12th Five-Year Plan.

2.1 Land Holding Pattern in the country

Indian agriculture sector is characterized by a large number of small and marginal farmers and over the years there is an increasing trend in the number of landholdings due to fragmentation of land.

Between 2000-01 and 2005-06, the area under cultivation has marginally declined from 159.43 million ha to 158.32 million ha, whereas the numbers of marginal and small farmer have gone up by 10.99% and 5.44% respectively. More importantly, small and marginal farmers together constituted a little more than 83% of the total farmers and held about 41% of the total area in 2005-06, the same has been 81% and 38% respectively in the year 2000-01. The 12th Plan document also recognizes this and states 'the viability of farm enterprise, mostly small farms, must therefore be a special area of plan focus in the Twelfth Plan'.

Table 17. Number and Area of operational holdings

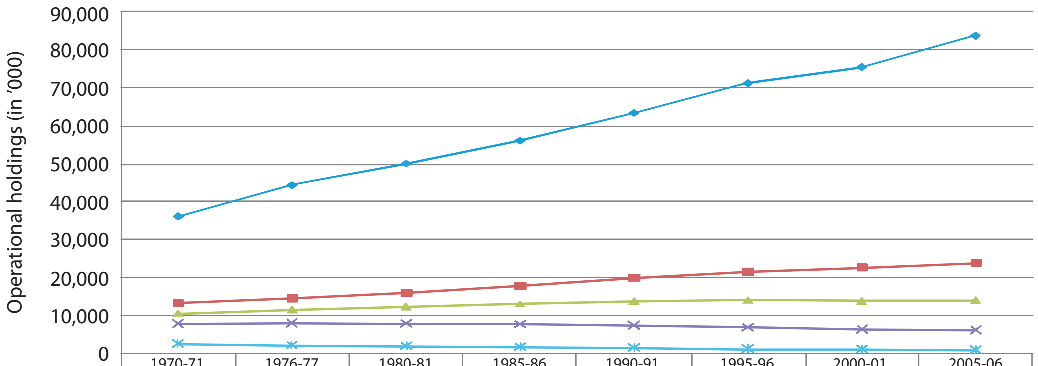
Number in '000

Area in '000 ha

Type of farmer	Land Holding Size	2005-06		2000-01		% Variation	
		Number	Area	Number	Area	Number	Area
Marginal	Less than 1 ha	83,694	32,026	75,408	29,814	10.99	7.42
Small	1-2 ha	23,930	33,101	22,695	32,139	5.44	2.99
Semi-medium	2-4 ha	14,127	37,898	14,021	38,193	0.76	-0.77
Medium	4-10 ha	6,375	36,583	6,577	38,217	-3.07	-4.27
Large	More than 20 ha	1,096	18,715	1,230	21,072	-10.95	-11.18
TOTAL		129,222	158,323	119,931	159,436	7.75	-0.7

Source: Agriculture Census (Government of India), 2005-06.

Figure 7. Number of operational holdings as per different agriculture censuses

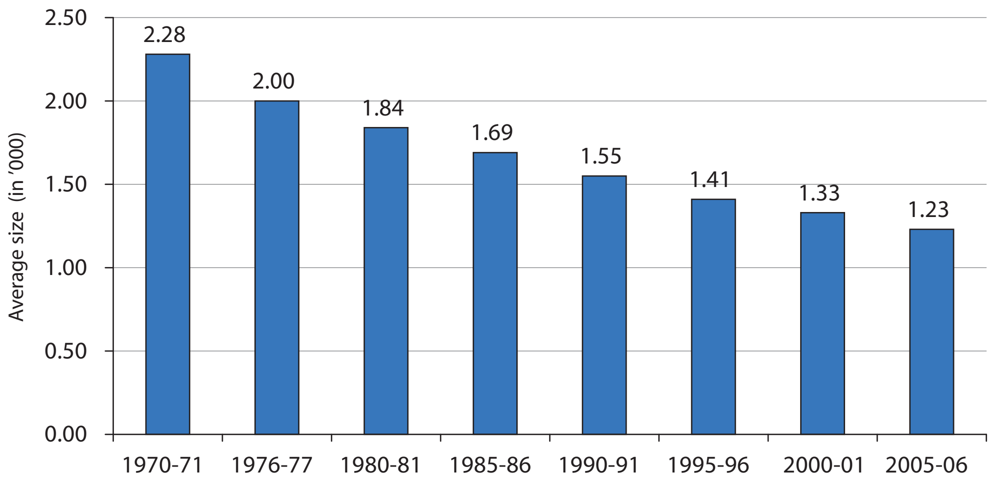


	1970-71	1976-77	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06
Marginal	36,200	44,523	50,122	56,147	63,389	71,179	75,408	83,694
Small	13,432	14,728	13,072	17,922	20,092	21,643	22,693	23,930
Semi-medium	10,681	11,666	12,455	13,252	13,923	14,261	14,021	14,127
Medium	7,932	8,212	8,068	7,916	7,580	7,092	6,577	6,375
Large	2,766	2,440	2,166	1,918	1,654	1,404	1,230	1,096

Source: Agriculture Census (Government of India), 2005-06

The marginal holding has been growing at a steep rate since agriculture census held in 1970-71. The small holding has also grown since 1970-71 though not at the same pace as marginal holding.

Figure 8. Average size of operational holdings as per different agriculture censuses



Source: Agriculture Census (Government of India), 2005-06.

With the increase in small marginal holdings the average landholding size has also fallen significantly since 1970-71 and in 2005-06 the average size of landholding was only 1.23 hectare. (Note: this is a repetition). There are also a significant number of landless farmers leasing lands for a short duration, mostly for a season, who cannot be ignored for their role in agriculture growth in India.

2.2 Drivers of growth

The spatial dimension of Indian agriculture has major significance in terms of growth trends observed in different states. States like Punjab, Haryana, Uttar Pradesh, and West Bengal have relatively more irrigated areas and have shown success in green revolution. The states like Kerala, Himachal Pradesh and Jammu & Kashmir have relatively less irrigated area have shown better success in horticulture crops. These States together contribute about 35% of national agricultural output from 20% of arable land[1].

The Planning Commission in the 12th Plan has identified the following as key drivers of agriculture growth in the country:

- Viability of farm enterprise and returns to investment that depend on scale, market access, prices and risk;
- Availability and dissemination of appropriate technologies that depend on quality of research and extent of skill development;
- Plan expenditure on agriculture and in infra-structure which together with policy must aim to improve functioning of markets and more efficient use of natural resources; and
- Governance in terms of institutions that make possible better delivery of services like credit, animal health and of quality inputs like seeds, fertilizers, pesticides and farm machinery.

2.3 Agricultural Credit

The role of institutions in the delivery of credit to the large number of small and marginal farmers is extremely important and a lot of attention is to be given to strengthen the institutions that can be instrumental in timely credit delivery in appropriate quantum.

The Reserve Bank of India, the central bank, has continuously focused on strengthening the institutional credit delivery mechanism for agriculture and rural development and National Bank for Agriculture and Rural Development (NABARD) was established in 1982 as the apex financing institution for agricultural credit in India.

The institutional credit delivery system in India ranges from cooperatives like Primary Agriculture Cooperative Societies (PACS), Cooperative Banks, Regional Rural Banks (RRB) and also the commercial banks. There are 121,225 Primary Agricultural Credit Societies (PACS), 371 District Central Cooperative Banks (DCCBs) with 13,327 branches, 31 State Cooperative Banks (SCBs) with 1028 branches[2].

The growth of agriculture credit got a major boost after the bank nationalization in 1969 and subsequent opening of large number of rural branches. In 2012, there were 36,503 offices of commercial banks which were rural offices and the same went up to 39,439 in 2013, a remarkable improvement from 1,833 rural branches before the bank nationalization in 1969.

All these have brought significant change in the agriculture credit scenario in India. The gross bank credit of scheduled commercial banks for agriculture and allied activities on March 2013 was Rupees 5,899 billion which is 12.11% of the total outstanding credit of all scheduled commercial banks.

[1] Planning Commission (Government of India). 2013. Twelfth Five-Year Plan (2012-17), Vol. II.

[2] Annual Report 2012-13, Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India.

The agriculture credit is primarily classified into short term, medium term and long term depending on the end use of the credit. For crop production purposes farmers can avail short term credits and for financing capital investments in agriculture and allied activities medium and long term credit is available that can be used for land development including land purchase, farm mechanization, minor irrigation, dairy development, poultry, animal husbandry, fisheries, plantation and horticulture. Besides, loans are also available for storage, processing and marketing of agriculture produce.

For a long time the primary sources of institutional credit for agriculture were the cooperatives but the trend reversed since the new millennium and the scheduled commercial banks have now overtaken the cooperatives as the main source of institutional credit for agriculture.

Table 18. Direct institutional credit for agriculture and allied activities in short-term scheme

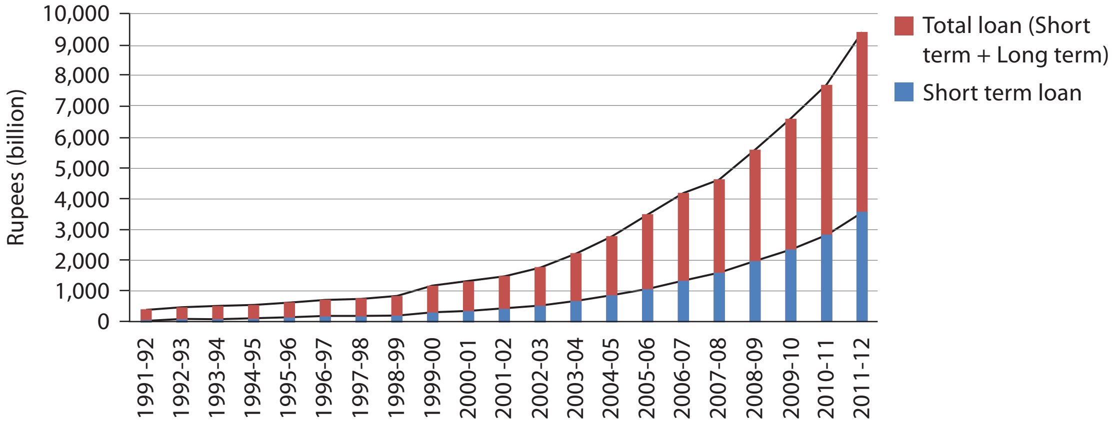
Year	Loans Issued (Rs. billion)				Loans Outstanding (Rs. billion)			
	Co-operatives	SCBs	RRBs	Total	Co-operatives	SCBs	RRBs	Total
1991-92	39.34	23.41	3.37	**66.11**	51.10	46.31	6.79	**104.19**
1992-93	43.94	24.32	4.51	**76.65**	59.00	49.88	7.99	**116.87**
1993-94	60.39	28.60	4.76	**97.52**	66.40	54.25	8.87	**129.52**
1994-95	69.96	38.42	6.88	**119.32**	70.91	61.54	11.15	**143.61**
1995-96	92.43	46.28	8.49	**152.73**	93.12	71.73	13.08	**177.93**
1996-97	94.89	56.25	11.74	**169.56**	96.18	87.66	16.25	**200.09**
1997-98	100.84	62.33	14.57	**186.32**	100.60	95.22	19.14	**214.69**
1998-99	106.98	77.42	17.50	**206.10**	104.62	108.21	22.38	**235.21**
1999-00	172.55	95.05	22.85	**290.45**	162.41	126.10	28.08	**316.59**
2000-01	185.56	107.04	30.95	**323.55**	181.68	154.42	36.92	**373.02**
2001-02	216.70	126.61	38.10	**381.41**	215.40	188.82	48.12	**452.34**
2002-03	236.29	168.25	48.34	**452.88**	245.18	232.11	64.95	**542.24**
2003-04	293.26	241.34	61.33	**595.93**	308.08	319.82	76.64	**704.54**
2004-05	318.87	299.78	98.83	**717.48**	324.81	427.98	109.80	**862.59**
2005-06	356.24	456.44	128.16	**940.84**	341.40	599.71	138.77	**1,079.88**
2006-07	407.96	652.45	170.31	**1,230.72**	377.64	760.06	187.07	**1,324.77**
2007-08	473.90	682.43	203.77	**1,360.10**	436.96	961.52	227.48	**1,625.96**
2008-09	480.22	1,077.66	228.51	**1,786.39**	456.86	1,262.85	266.52	**1,986.23**
2009-10	569.46	1,246.46	305.29	**2,121.21**	357.17	1,676.23	336.63	**2,370.03**
2010-11	690.38	1,460.63	385.60	**2,536.61**	496.45	1,932.62	406.63	**2,835.70**
2011-12	818.29	2,178.97	470.11	**3,467.37**	445.17	2,690.30	465.80	**3,601.27**

SCBs: Scheduled Commercial Banks; RRBs: Regional Rural Banks
Source: Handbook of Statistics on Indian Economy, Reserve Bank of India, 2012-13

Between 1991-92 and 2011-12, the growth of agriculture credit has been highly impressive and grown to Rs. 5,797 billion during 2011-12 from a meagre Rs. 311 billion in 1991-92. Commercial banks have emerged as the major delivery channel, taking almost 75% share in the loan outstanding in 2011-12. The share of co-operative banks' and RRBs are around 12% each.

The CAGR was also in two digits since 1992-93 for both short term and total loan outstanding. Though CAGR for the total loan remained almost constant around 15%, the CAGR for short term loans was growing steadily and from 15.22% in 2000-01 it has reached to 19.38% in 2011-12.

Figure 9. Direct institutional loan outstanding for agriculture and allied activities



Source: Handbook of Statistics on Indian Economy, Reserve Bank of India, 2012-13

Table 19. Direct institutional loan outstanding for agriculture and allied activities

Year	Short term loan (Rs. billion)	Total loan (Short term + Long term) (Rs. billion)	CAGR of Short Term Loan	CAGR of total loan
1991-92	104	311		
1992-93	117	343	12.17	10.02
1993-94	130	370	11.50	8.98
1994-95	144	407	11.29	9.37
1995-96	178	460	14.32	10.26
1996-97	200	509	13.94	10.33
1997-98	215	545	12.81	9.78
1998-99	235	574	12.34	9.13
1999-00	317	814	14.90	12.76
2000-01	373	917	15.22	12.74
2001-02	452	1,055	15.81	12.98
2002-03	542	1,231	16.18	13.31
2003-04	705	1,512	17.27	14.08
2004-05	863	1,911	17.66	14.97
2005-06	1,080	2,394	18.18	15.68
2006-07	1,325	2,859	18.47	15.93
2007-08	1,626	3,017	18.74	15.25
2008-09	1,986	3,575	18.93	15.44
2009-10	2,370	4,215	18.96	15.57
2010-11	2,836	4,893	18.99	15.60
2011-12	3,601	5,797	19.38	15.74

Source: Handbook of Statistics on Indian Economy, Reserve Bank of India, 2012-13

2.4 Priority Sector lending and agricultural credit

The role of formal financial institutions is quite substantial in maintaining the pace of delivery of agriculture credit in line with the growth of GDP, though the share of agriculture in total GDP dropped steadily over the years. The share of agriculture credit as a proportion of total GDP was 1.3 in 1960-61 and has grown continuously till 1980s to 2.6. It dropped to 2.0 in 1990s and remained at that level in 2001-02 as well[3].

A key factor that largely contributed in maintaining the momentum in the flow of credit to agriculture sector is that agriculture credit was considered under priority sector lending stipulations set by the Reserve Bank of India. Priority Sector lending includes lending to those sectors that impact large sections of the population, the weaker sections and the sectors which are employment-intensive. The categories under priority sector include agriculture, micro and small enterprises, education, housing, export credit, and others.

Agricultural credit being within the ambit of priority sector lending all the scheduled commercial banks are stipulated to maintain 18% of their ANBC (Adjusted Net Bank Credit) or credit equivalent amount of off-balance sheet exposure whichever is higher as total agriculture advances.

Direct Finance to agriculture includes short term and long term loans given for agriculture and allied activities (dairy, fishery, piggery, poultry, bee-keeping, etc.) directly to individual farmers, Self-Help Groups (SHGs) or Joint Liability Groups (JLGs) of individual farmers.

There are other credits that qualify as agriculture credit such as, "Loans to corporate including farmers' producer companies of individual farmers, partnership firms and co-operatives of farmers directly engaged in Agriculture and Allied Activities, viz., dairy, fishery, animal husbandry, poultry, bee-keeping and sericulture (up to cocoon stage) up to an aggregate limit of Rs. 2 crore (or 20 million) per borrower" for specific purposes stipulated by RBI.

The significant inclusion as loans eligible under priority sector lending as category 'Agriculture (Indirect Finance)' is:

- Loans sanctioned to NGOs, which are SHG Promoting Institutions, for on-lending to members of SHGs under SHG-Bank Linkage Programme for agricultural and allied activities
- Loans to MFIs for on-lending to farmers for agricultural and allied activities as per the stipulated conditions

This gives a huge scope to NGOs and MFIs to make agriculture credit available to unreached farmers at an affordable rate.

There is also now a tremendous opportunity to expand the agriculture credit in India by strongly involving the women SHGs in the agriculture credit disbursement. This would especially help in bringing the tenant farmers into the fold of formal institutional delivery of agriculture credit, who otherwise remain outside the ambit.

A Sub-Committee was formed by Indian Banks' Association to examine issues and suggest measures to increase the flow of credit to agriculture sector especially to tenant farmers, agricultural labourers, and share croppers. The subcommittee came up with a white paper in 2007 that has also recommended 'Microfinance through NGOs/MFIs to explicitly target agriculture and allied sector'[4].

[3] Mohan Rakesh (2004). Agriculture Credit in India: Status, Issues and Future Agenda; Reserve Bank of India Bulletin, Nov. 2004.
[4] Indian Banks' Association (2008). Report of IBA Sub-Committee on Flow of Credit to Agriculture Sector.

2.5 Policy initiatives as a key driver of Agriculture credit growth

The rapid growth in agriculture credit can be attributed not only to the huge expansion of institutional arrangements for credit delivery but also to the policy measures been taken up by the government. A comprehensive credit policy was announced by the Government of India on 18 June 2004, containing measures for doubling agriculture credit flow in the next three years and providing debt relief to farmers affected by natural calamities. Few improtant highlights of that announcement:

- Credit flow to agriculture sector to increase at the rate of 30% per year.
- Debt restructuring in respect of farmers in distress and farmers in arrears providing for rescheduling of outstanding loans over a period of five years including moratorium of two years, thereby making all farmers eligible for fresh credit.
- Special One-Time Settlement scheme for old and chronic loan accounts of small and marginal farmers.
- Banks allowed extending financial assistance for redeeming the loans taken by farmers from private moneylenders.
- Commercial Banks (CBs) to finance at the rate of 100 farmers/branch; 50 lakh new farmers to be financed by the banks in a year.
- New investments in agriculture and allied activities at the rate of two to three projects per branch.
- Refinements in Kisan Credit Cards (KCCs) and fixation of scale of finance.

Over the years several other policy initiatives were taken that positively impacted the credit follow in agriculture and allied sector. Banks have been advised to simplify the procedures for documentation, the SHG-Bank Linkage has been intensified, and Banks have been advised to finance Joint Liability Groups (JLGs) and tenant farmers' groups are among many such policy initiatives that have been helpful in creating an environment for promoting institutional credit to the sector.

The one very important policy initiative taken by Government in this regard was the announcement of interest subvention scheme in 2006-07. The Government had decided to ensure that the farmer receives short term credit at 7%, with an upper limit of 3.00 lakh on the principal amount. The policy came into force with effect from Kharif 2006-07. Under the scheme the Government of India provided interest subvention of 2% to Public Sector Banks, Regional Rural Banks and Cooperative Banks in respect of short term production credit up to 3.00 lakh provided to farmers out of their own resources, provided that they make available short term credit @ 7% p.a. at ground level. Since the year 2009-10, the GoI revised the scheme to incentivize prompt repayment and an additional interest subvention was extended to farmers who will repay their loans on or before the due date or the date fixed by the bank, subject to a maximum period of one year. For 2011-12, this additional interest subvention was 3% which implied that the prompt paying farmers got short term crop loan for 4% during 2011-12.

The policy initiatives on financial inclusion, reforms of cooperatives, having transactions through formal channels, adoption of Core Banking Solutions (CBS) by all commercial banks have also significantly influenced the growth of agriculture credit during last decade.

2.6 Impact of credit

Though several authors have recognized the difficulty to establish a causal relationship between agriculture credit and agriculture and production, Das et al. (2009) observed that correlation coefficients of GDP and bank credit in respect of agriculture for a large number of states were positive and statistically significant. They also analyzed that extension of formal credit to agriculture may play a significant role on the agriculture output in several states. The study showed that the financial inclusion of farmers in the organized financial system could boost agriculture output and change in per capita agriculture direct credit (amount outstanding) by 1% would lead to increase in per capita agriculture output by 0.11%.

2.7 Issues and concerns

Despite the rapid growth in agriculture credit the working group on outreach of institutional finance, cooperatives and risk management for the 12^{th} Five-Year Plan (2012-17) set up by Planning Commission had analyzed the available data from various sources (Table 20) and observed in their report that during the past decade, the formal sources of credit has lost market share to the moneylenders:

Table 20. Share of Debt* of Cultivator Households from Different Sources (%)

Sources of Credit	1951	1961	1971	1981	1991	2002
Institutional	**7.3**	**18.7**	**31.7**	**63.2**	**66.3**	**61.1**
Cooperative Societies/Banks, etc.	3.3	2.6	22.0	29.8	30.0	30.2
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3
Non-Institutional	**92.7**	**81.3**	**66.3**	**36.8**	**30.6**	**38.9**
Moneylenders	69.7	49.2	36.1	16.1	17.5	26.8
Unspecified	–	–	–	–	3.1	–
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

* Debt refers to outstanding cash dues.

The same report identified few issues of concern as regional imbalances in credit flow, term lending taking a backseat, sluggishness of the share of small and marginal farmers, dilution in synchronisation of credit flow with agricultural seasonality, increase in the share of indirect finance and poor MIS not being able to decipher the direction of flow.

NABARD Annual Report, 2012-13 also listed out few major concerns about the agriculture credit flow in the country:

- Roughly 50% of the farm households are still uncovered by formal banking institutions
- Continuous loss of share of cooperative banks over years which are major source of credit for small and marginal farmers

Few researchers also raised concerns that a considerable number of small and marginal farmers not being covered under the institutional agriculture credit. A study by Kumar et al. observed that the bigger household size and larger farm size increased the probability of taking credit from the institutional source. They also highlighted the vulnerability of the weaker sections and observed that the households belonging to weaker sections like scheduled castes, scheduled tribe and other backward castes cold get less credit from the institutional sources than the general caste households.

3. Microfinance Conditions

Microfinance can be defined in a simplistic manner as the provision of thrift, credit and other financial services and products of very small amounts to the poor for enabling them to raise their income levels and improve their living standards. It has been globally accepted that microfinance has played a very significant role in helping the poor people access small credit and other financial services which was otherwise not been available to them.

The informal and flexible services offered to low-income borrowers, especially without any collateral, for meeting their modest consumption and livelihood needs have not only made microfinance movement grow at a rapid pace across the world, but in turn has also impacted the lives of millions of poor positively.

It is important to recognize the fact that the financial service providers do not provide services exclusively for agriculture, though there are certain exceptions to this in the form of specialized agricultural finance institutions. Service providers include both formal and informal institutions, ranging from full-service banks to specialized agricultural finance institutions, microfinance institutions (MFIs), financial cooperatives, credit unions, savings and loan associations, traders, moneylenders, pawnbrokers and processors.

3.1 History of Microfinance in India

India has a relatively long history of microfinance though the quantum leap in the microfinance environment in India can be attributed to the self-help group (SHG) – bank linkage programme (SBLP) started as a pilot project in 1992 by National Bank for Agricultural and Rural Development (NABARD). National Bank for Agriculture and Rural Development (NABARD) sponsored an action research project related to formation of credit groups in 1987 through an NGO called MYRADA at Karnataka state. Buoyed by the success of this initiative, NABARD launched the Pilot Project in 1991-92 in partnership with Non-Governmental Organizations (NGOs) for promoting and grooming self-help groups (SHGs) of homogeneous members and making savings from existing banks and within the existing legal framework.

The Independent Office of Evaluation of IFAD in their Project Performance Assessment Report of National Microfinance Support Programme (NMSP) in India published in June 2013 has observed that the microfinance sector in India was at a nascent stage at the time of the launch of NMSP in 2002. While describing the microfinance scenario of 2002 they opined- "Despite a large formal banking network in the country, the poor had limited access to financial services. Poor women had even less access due to restricted mobility, social norms and lack of asset ownership. The poor remained overwhelmingly dependent on the informal sector, principally traders, money lenders and landlords, for their credit needs. A further challenge was the uneven geographical spread. Development of the microfinance sector was heavily concentrated in the southern states of Andhra Pradesh, Tamil Nadu, Karnataka and Kerala where strong, experienced non-governmental organizations (NGOs)/MFIs were to be found. There was a dearth of NGOs/MFIs in the northern and eastern regions, which included some of the poorest states, such as Uttar Pradesh, Bihar and Orissa, where the need for microfinance was the greatest." There has been a rapid progress since then including reaching out to women.

3.2 Institutional Delivery of Microfinance in India

The important microfinance service providers in India are the apex institutions like National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI). At the lower level we have commercial Banks, Regional Rural Banks and cooperatives to provide microfinance services. The private institutions that undertake microfinance services as their main activity are generally referred to as Microfinance Institutions (MFIs) in Indian context.

Recognizing the potential of microfinance to positively influence the development of the poor, the Reserve Bank, NABARD and SIDBI have taken several initiatives over the years to give a further fillip to the microfinance movement in India. Reserve Bank of India (RBI) also set the right policy environment by allowing savings bank accounts of informal groups to be opened by the formal banking system.

Subsequently other approaches like microfinance institutions (MFIs) also emerged in the country. They raise resources from banks and other institutions and extending loans to JLG/members. The MFIs are of different legal entities viz. (1) NGO/MFIs – registered under the Societies Registration Act, 1860 or the Indian Trusts Act, 1880; (2) Cooperative MFIs – registered under the State Cooperative Societies Act or Mutually Aided Cooperative Societies Act or Multi State Cooperative Societies Act; (3) NBFC-MFIs incorporated under Section 25 of Companies Act, 1956; (4) NBFC-MFIs incorporated under the Companies Act, 1956 and registered with RBI.

A large proportion of these MFIs are estimated to be NGO/MFIs registered under the Societies Registration Act 1860 or the Indian Trust Act 1880. For profit MFIs are still very few in number compared to the for-profit companies.

Table 21. Legal forms of MFIs in India

Types of MFIs	No. as per Sa-Dhan Report	Estimated Number*	Legal Acts under which Registered
1. Not for Profit MFIs			
a) NGO/MFIs (Includes Society & Trusts)	142	525-550	a) Societies Registration Act, 1860 or similar Provincial Acts b) Indian Trust Act, 1882
b) Non-profit	38	100-125	Section 25 of the Companies Act, 1956
2. Mutual Benefit MFIs			
a) Mutually Aided Cooperative Societies (MACS) and similarly set-up institutions	18	300-350	Mutually Aided Cooperative Societies Act enacted by State Government
3. For Profit MFIs			
a) Non-Banking Financial Companies (NBFCs)	25	25	a) Indian Companies Act, 1956 b) Reserve Bank of India Act, 1934
Total	**223**	**950-1,050**	

* The estimated number includes only those MFIs, which are actually undertaking lending activity.
Source: Sa-Dhan-Bharat Microfinance, 2008, as quoted in Das Prasun Kumar (2011). Towards Corporate Governance of Microfinance Institutions (MFIs) in India. Working Paper No. SRM/KIIT/2

The Reserve Bank of India has since notified guidelines for the lending operations to a new class of financial organizations named as NBFC-MFIs, subject to certain conditions regarding the capital to be employed, lendings to members, cap on interest to be charged and margin to be retained, etc. The loans extended to these NBFC-MFIs by banks now qualify for priority sector lending category.

3.3 Progress in Indian Microfinance

Microfinance movement in India has also got a strong boost when the Planning Commission identified financial inclusion as an important policy initiative and an essential component of poverty alleviation programs. The Planning Commission has also recognized the role SHGs in ensuring financial inclusion for the poor. The two strong models of microfinance that emerged in India over the years are the SHG Bank Linkage Program (SBLP) and MFI. Though the MFI model is relatively younger, their growth has been quite rapid in the last few years.

Table 22 shows the data on client outreach of microfinance from 2006-07 to 2012-13, as quoted in Microfinance India, State of the Sector Report, 2013 published by Access Development Services. The total number of clients of microfinance, SBLP and MFI together, remained around 90 million during 2010-11 to 2012-13 but the total loan outstanding has steadily grown during the same period.

Table 22. Client outreach-SBLP and MFI models

Year	Number of Clients (million)			Loan outstanding (Rs. billion)			Share of MFI in incremental micro lending (%)
	SBLP	MFI	Total	SBLP	MFI	Total	
2006-07	38	10	48	123.66	34.56	158.22	
2007-08	47	14	61	169.99	59.54	229.53	35.03
2008-09	54	23	77	226.79	117.34	344.13	50.44
2009-10	60	27	87	280.38	183.43	463.81	55.22
2010-11	63	32	94	312.21	215.56	527.77	50.23
2011-12	61	27	88	363.4	209.13	572.53	-14.37
2012-13	65	28	93	393.75	223	616.75	31.37

Source: Presentation made by Sa-Dhan at the FICCI workshop on Sustainable Financial Inclusion, 5 August 2013, Mumbai, quoted in Microfinance India, State of the Sector Report, 2013 published by Access Development Services

During 2008-09 to 2010-11, the microfinance sector was been strongly driven by the MFIs and more than 50% of the incremental micro lending was been contributed by the MFIs. Despite the significant growth exhibited by the MFIs during 2008-09 to 2010-11, the SBLP could largely retain its' share of the clients which remained between 67-70%. During last two years of 2011-12 and 2012-13, the SBLP had about 69.5% share of clients with about 63.5% share of total loan outstanding.

The SHG members take up regular lending from their own savings and the revolving fund received from NRLM or other government programs which remain unreported and surely constitute a large portion of the total microfinance activities in the country.

Microfinance India, State of the Sector Report, 2013 published by Access Development Services also refers the data sourced from Microfinance Information Exchange (MIX). The share of top five MFIs to the total loan portfolio of 43 NBFC-MFIs has grown from 39.65% in 2011 to 48.54% in 2013, which shows the dominance of only few MFIs over the other NBFC-MFI. This is also important to note that more than 85% of the loan portfolio of MFIs considered in the above report, are with the 43 NBFC-MFI and 16 NGO/MFIs contribute only about 15% of the total outstanding of MFIs. The report also highlights that one single organization based in Karnataka state, Sri Kshetra Dharmasthala Rural Development Project (SKDRDP) alone account for two thirds of the loan portfolio of the NGO/MFIs. Most of the strong NBFC-MFIs and the NGO/MFIs are based in South India and they are still the dominant players.

It is clearly evident that the MFIs have to look northwards for their future growth and the future demand growth would also be visible there with higher incidence of poverty and greater emphasis of NABARD to promote microfinance in these states.

The SHG Bank Linkage has now emerged as the most popular model of microfinance in India with presence in all the states in the India and has turned out to be a movement to drive the microfinance, boosted by the support it received from various government poverty alleviation programs. There is a major shift in the government programs which are becoming more and more demand driven rather than supply driven programs and investing in organizing the poor and building the capacity of the poor to absorb the credit and other financial services. This transition in the approach of the major government programs has brought in a strong impetus on the microfinance sector in the country through promotion of SHG Bank Linkage. There were 7.318 million SHGs savings linked to the banks in 2013 with a bank savings of Rs. 82.17 billion and 81.1% of these SHGs were women SHGs with 79.9% of the total savings. The total loan outstanding to these SHGs from the banks as of 31st March 2013 was Rs. 393.75 billion[5].

In 2013, banks have disbursed Rs. 78.39 billion to 426 MFIs and the total loan outstanding as of 31st March 2013 was Rs. 144.25 billion to 2042 MFIs.

Even the SHG Bank Linkage program and MFIs together have a loan outstanding of Rs. 534 billion which is only a small percentage of the total agriculture credit in India.

3.4 Microfinance for agriculture

Microfinance plays a critical role in provisioning agriculture credit to the poor in India. The poor also borrow from MFIs for animal husbandry.

The Bharat Microfinance Report, 2013 describes that a significant portion of the microfinance goes for the agriculture and animal husbandry purposes which as on March 2013 together stood at 33.15% of the total microfinance for income generation amounting Rs. 210.29 billion[6]. This is a clear indicator of the high demand for microfinance in agriculture and allied purpose that exist in India.

Table 23. Sub Sector wise loan portfolio of MFIs as of March 2013

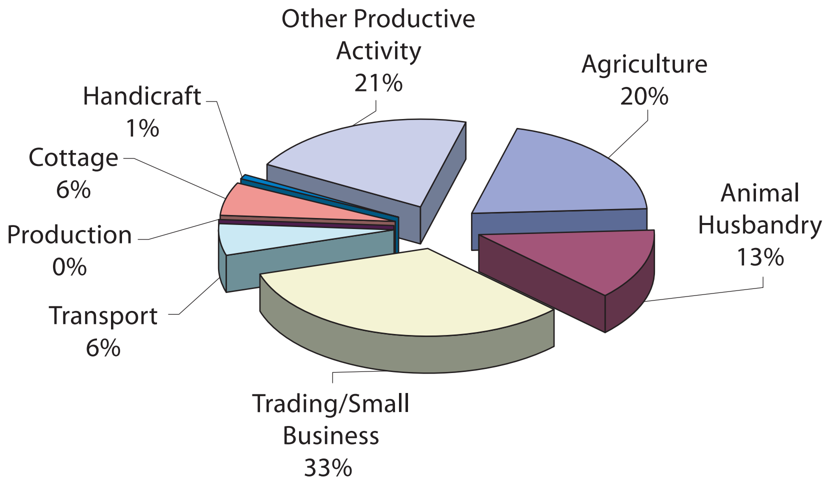
Economic Activity	Rs. (Billion)
Agriculture	42.91
Animal Husbandry	26.8
Trading/Small Business	69.61
Transport	12.24
Production	0.68
Cottage	11.59
Handicraft	2.11
Other Productive Activity	44.35
Total	**210.29**

Source: Sa-Dhan (2013). The Bharat Microfinance Report, 2013.

[5] National Bank for Agriculture and Rural Development (2013). Status of Microfinance in India, 2012-13.

[6] Sa-Dhan (2013). The Bharat Microfinance Report, 2013.

Figure 10. Share of MFIs' loan portfolio



Source: Sa-Dhan (2013). The Bharat Microfinance Report, 2013.

Data is not available for the microfinance used for agriculture and allied purposes under SBLP which constitutes about 64% of the total loan outstanding under microfinance in 2012-13.

Possibly a similar trend can be observed for microfinance used for agriculture under SBPL as well. There are several instances where poor landless women have borrowed from their SHGs for taking land on lease and have taken up agriculture.

There are not many MFIs having an exclusive product for agriculture yet. The microloan products are all-purpose loan products. In agriculture, microfinance credit decisions are taken on current repayment capacity – short-term, incrementally increasing loans to establish relationships with clients and lower default risk. We find repayment schedule with frequent payments to take advantage of the multiple income sources of a borrower's household. MFI relies on staff trained in lending methodology, not on client activities – expects loan officers to focus on building relationships with clients, enforcing repayment, and understanding the performance of farming households' multiple economic activities.

4. Emerging Models in India for Microfinance in Agriculture

Over last few years two models have emerged in the filed of microfinance which have shown strong potential to cater to the needs of small and marginal farmers most of whom are still outside the ambit of institutional credit, the SHG Bank Linkage model and the Joint Liability Group (JLG) model.

The working group on outreach of institutional finance, cooperatives and risk management for the 12th Five-Year Plan (2012-17) set up by Planning Commission have also observed that '*The SHG Bank Linkage program is the most appropriate financial mechanism to extend credit to the poor who have no assets and to marginal dryland farmers*'. In their report it was also noted that '*the JLGs are appropriate for small farmers and livestock owners*'

4.1 SHG based model

Society for Elimination of Rural Poverty (SERP), a government program for poverty alleviation in the state of Andhra Pradesh and Telangana has promoted a million women SHGs with more than 10 million members, and its annual bank-linkage is around US$ 2 billion. SERP, among several other initiatives, is implementing Community Managed Sustainable Agriculture (CMSA) program involving more than a million households in 3.5 million acres of agricultural lands through a community centric approach where the federation of SHGs manage the program at the village level. The most unique feature about CMSA is that it bundles credit with a package of extension and marketing services that significantly enhances the credit absorption and ensures repayment. It provides knowledge to SHG members through Farmers field Schools, extends technical assistance in crop cultivation focusing on agro ecology applying locally available resources (no chemical pesticides and lesser dependence on chemical fertilizers), and also facilitates community themselves taking up marketing of pesticide free produce. As the agro ecological practices greatly reduce the cost of cultivation the credit requirements remain low. Banks or federations of SHGs provide loans to SHGs for on-lending. It is the SHG which gives loans to the individual members. This model is a milestone in agriculture microfinance in India. Thousands of women farmers, who were earlier only agriculture labourers, are now borrowing from their respective SHGs to take land on lease and taking up agriculture.

The results of the intervention have been so beneficial to the farmers that there has been an exponential increase in the area under sustainable agriculture. It is an expansion, driven by the positive experience of the farmers. SERP initiated this program in 2004 with about 250 farmers and 400 acres and now it reached to more than 1 million farmers and 3.50 million acres.

4.2 JLG (Joint Liability Group)

NABARD has embarked on a highly focused microfinance approach to cater to the livelihoods requirements of the poor engaged in agriculture. NABARD has been supporting formation of informal groups like Joint Liability Groups (JLGs) with 4-10 members. These are basically livelihood groups who come together on the strength of the mutual guarantee to seek livelihood finance for pursuing an economic activity. This was targeted at mid-segments clients engaged in similar economic activities like crop production and who are willing to jointly undertake to repay the loans taken by the Groups. Unlike in the case of SHGs, JLGs are intended basically as credit groups for tenant farmers and small farmers who do not have proper title of their farmland or security to offer, but needed longer term credit or seasonal credit for pursuing their economic activities. Thus, regular savings by JLG is purely voluntary in nature and there was no intermediation of credit by its members. Loans were given based on mutual guarantee to individuals in a group or as group loans. NABARD besides extending financial support for awareness creation/capacity building of all stakeholders also extends 100% refinance support to Banks on their lending to JLGs. About 196,500 JLGs were promoted and credit linked during 2012-13, as against 191,500 JLGs promoted during the previous year. There has been expansion in credit flow to JLGs to the extent of Rs. 18.37 billion as against Rs. 17.00 billion (8% increase over the previous year), taking the cumulative number of JLGs to 529,246 and the cumulative loan disbursed to JLGs to Rs. 46.83 billion. The growth of JLGs in the country is less skewed than the SHGs. Although the southern states top the list with over 2 lakh (or 200,000) JLGs credit linked so far, Eastern region closely follows with 1.81 lakh (or 181,000) JLGs. In terms of actual loans disbursed, however, southern states account for over 60% of the total loans disbursed.

Efforts by government programs like the "Kudumbashree" in Kerala state with the assistance of NABARD commenced a land leasing project by small groups of women in Joint Liability Groups (JLGs). There are over 38,000 JLGs in Kerala covering 2.5 lakh (or 250,000) women cultivating 24,000 ha of land which forms about 9% of the total current fallow land of the state. Thus, government programs like the "Kudumbashree" have also heralded a new beginning of enterprises through group action.

NABARD has also taken up studies to map major livelihood activities in five backward districts of Bihar, Chhattisgarh, Madhya Pradesh, Karnataka and Uttar Pradesh. Besides, mapping the potential in these districts for value chain development, these studies undertaken on 2012-13 also attempted to explore possible solutions in respect of financial and non-financial services for SHGs and their members. Some of the agriculture activities mapped under the study are, goat rearing, poultry, dairy, SRI, pulses etc. The findings of these studies are expected to help in planning livelihood interventions and in providing the necessary inputs for establishing sustainable livelihood interventions for SHG members.

5. Challenges of Microfinance to Agriculture and Way Forward

The growth of microfinance in India has been very rapid with a large clientele. But still there are several challenges to overcome for this sector to become a strong instrument for poverty alleviation. The primary challenge is to build a wider outreach across regions and penetrate the rural areas which are yet uncovered. There are more than 107 million small and marginal farmers in the country and 60% of the farmers are not covered under institutional credit[7]. MFIs cater to 28 million clients and only about 33.15% of their loan portfolio is for agriculture purpose including animal husbandry.

More than 80% of the Indian farmers are small and marginal farmers and there are also a large number of tenant farmers who are not enumerated. Making institutional credit accessible to this segment can not only significantly enhance the productivity but can also substantially improve the household food security. This would require innovation in product design to cater to specific needs of small and marginal farmers. The poor farmers quite often are not familiar with the various processes required to access the institutional credit and developing their financial literacy poses a big challenge.

The two most important factors that act as challenges to expand microfinance outreach are the cost of delivery and the risk of non-repayment. But there are innovations like the business correspondent model, introduction of weather index base crop insurance etc. that could help overcome this. It can also be expected that with the expansion of outreach the microfinance operations would reach the scale and the cost of delivery would come down significantly.

The successful models like the SBLP and JLG require the farmers to be organized into groups. The primary investment in formation of the groups of farmers is to be made by a promoting agency. Different government programs and NABARD have been forming groups and also supporting various NGOs to organize farmers into groups. But it will still take some more time to reach all the villages in the country.

Untill 2010, the microfinance sector in India was growing at a breakneck pace when an ordinance passed by Government of Andhra Pradesh in October, 2010 to regulate the microfinance activities had made everyone to sit up and introspect.

The ordinance was the result of a series of suicides attributed to the coercive practices adopted by MFIs for repayment and promulgated to protect the poor borrowers of MFIs. The interest of the poor borrowers took a back seat and was overlooked for a long time at the expense of a mad rush for growth of microfinance.

A study conducted by Centre for Microfinance and Micro Save in 2012 observed that, 'MFIs, in the process of rapid scale up and single minded pursuit of exponential growth targets, ignore the needs of the clients.' The study clearly showed the discomfort of the clients with inflexible repayments, interest rates and behaviour of the staff especially when it comes to repayment.

The 2010 crisis in Andhra Pradesh had been an eye opener and brought several issues, so far swept under the carpet, to the limelight like profitability vs well-being of poor, reasonable interest rate to be charged, multiple lending to the same borrower making them highly indebted, excessive commercialization etc.

[7] Planning Commission (Government of India). 2013. Twelfth Five-Year Plan (2012-17), Vol. II.

It is extremely important that a clear strategy needs to be developed to cover the large number of poor who are still left outside the current reach of microfinance sector. Most of these challenges are surmountable and Government of India, NABARD and several NGO/MFIs have already taken positive steps towards finding solutions for these challenges.

6. CONCLUSION

Indian agriculture is characterized by a large number of small, marginal and tenant farmers and the number is growing over last several decades. The per capita land holding is also decreasing steadily over the years. The potential to improve their access to credit from formal sources is immense. The total volume of loan outstanding together under SHG Bank Linkage program and under MFIs, which also includes credit for micro-enterprise, consumption etc., is quite low in comparison to the total agriculture credit. Therefore, a huge scope for expansion of microfinance in agriculture is mostly untapped.

There is a strong need to recognize the opportunity in financing small, marginal and tenant farmers through microfinance route and design tailor made products to cater to the specific needs of this clientele.

The microfinance models like the SHG based model promoted by SERP and JLG models promoted by NABARD are highly successful in making microfinance work for the poor who require small credit for agriculture purpose. The speed at which these models are growing are highly encouraging and we can surely hope that the share of microfinance in total priority sector lending would grow at a rapid pace on the strength of these models.

Part 4

Nepal Microfinance in Agriculture

Chinta Mani Siwakoti, Bana Dev Sigdel, Ram Hari Dahal, Kinti Kikran Dahal, Jhabat Bahadur Rawal, Devish Man Joshi and Samir Hari Sharma

1. Introduction

1.1 Background

Located in the northern hemisphere between India and China with 147,181 sq. km. of area, Nepal occupies 0.3% of land area of Asia and 0.03 percentage of land area of the world. The altitude of Nepal ranges from a minimum of 70 meters to a maximum of 8,848 meters (Mt. Everest—the top of the world). The average width (North to South) of Nepal is about 193 km, whereas the average length (East to West) is 885 km. The county has great variety of topography which is reflected in the diversity of weather and its climate simultaneously. Specially, the country experiences tropical, meso-thermal, micro-thermal, taiga and tundra types of climate. Nepal is a multi-ethnic, multi-lingual, multi-religious and multi-cultural country. The latest census of 2011 reveals that there are 123 languages being spoken in Nepal whereas 125 caste and ethnic groups are residing in Nepal. Nepal is a democratic republic country which currently is in the process of finalizing the constitution through the elected constitutional assembly.

Nepal is remarkably rich in its natural resources like water, forest, bio-diversity etc. Forest covers approximately 36% of its land area while hundreds of rivers flow through this country to India holding very high potentiality of generating a significant amount of hydro-electricity and irrigating thousands of acres of land throughout the whole country. Administratively, the country has been divided into five development regions, 14 zones and 75 districts. As per the latest population census of 2011, Nepal has 26.5 million populations with population growth rate of 1.35%. Out of total population, 6.7% live in Mountain, 43.0% live in Hills while rest of the 50.3% people live in Terai, the plain area. The Census indicates that more than 80% population still resides in the rural areas and it has an uneven geographical distribution of population. The density of population is averaged at 153 people per sq. km. The average literacy rate of Nepal stands at 65.9% with male recording 75.1% and female 57.4%.

Nepalese economy is passing through a crucial phase of circumscribed by poverty and stagnation. Its annual GDP growth is not exceeding 4% with inflation hovering around 9%. Nepal's per capita annual income is around USD 750 exhibits that the economy is trailing behind other neighboring countries in South Asian region. Inward remittance and tourism sector's earnings have supported Nepal to maintain favorable balance of payments and gradual reduction of poverty for few decades. Presently, the amount of inward remittance has exceeded NRs. 500 billion which is nearly 23% of country's GDP. The financial resources needed for the development of Nepal has been mitigated mainly by foreign aid and internal revenue collection.

1.2 Objectives of the Study

The general objective of this study is to explore status of microfinance in relation to agriculture and rural development for sustainable financial services to small holder farmers and related stakeholders, institutions, etc., in Nepal. However, the study focuses on the following specific objectives:

- To review rural development and agriculture sector's performance and its constraints in Nepal.
- To analyze the present status of microfinance with reference to agriculture.
- To identify influencing factors that contributes and limits the efficient implementation of microfinance in agriculture by financial institutions for sustainable financial services.
- To document and analyze the evolving process, strategies and tools used in the provision, delivery and access of microfinance by different stakeholders in rural and agricultural development; and

- To determine and recommend solutions in addressing the pertinent challenges in Nepalese rural finance and microfinance sphere for sustainable rural vs agricultural development.

1.3 Methodology of the Study

This research study has relied on secondary data and information available mainly from Nepal Rastra Bank, Central Bureau of Statistics, Ministry of Finance, Ministry of Agriculture Development, Ministry of Local Development, National Planning Commission, Agriculture Development Bank, IFAD, APRACA, World Bank, Asian Development Bank, Microfinance Promotion and Supervision Department and Research Department of NRB, Small Farmers Development Bank (SFDB), Nirdhan Utthan Bank, Nepal Grameen Bikas Bank; etc. in the form of booklets, books, journals, annual reports; etc. The relevant literature for this study has been gathered from the relevant publication and also from the websites. Additionally, the primary data on agriculture, rural development, microfinance, financial development, inclusion vs growth, outreach, finance etc. have been gathered, tabulated and processed. They have been depicted through charts, graphs and other statistical tools during the course of analysis in relevant chapters.

Case studies of certain MFIs have been incorporated purposively on sample basis. Two types of questionnaire; i.e., institutional and individual beneficiary households were developed and used purposively formulate successful stories. Additionally, purposive focus group discussions were also held with the officials and some of the clients of selected institutions. The questionnaires used in this study for FGD and obtaining data from selected institutions have been inserted in the annexure.

1.4 Organization of the Study

This study comprises of seven chapters. The first chapter is introductory one which are introduction, objective, methodology, organization and scope and limitation of the study. The second chapter is about the Nepalese economy and rural development which includes rural development efforts, basic socio-economic indicators, constrains and prospects of agriculture sectorial growth and policies related to agriculture sector. The third chapter is bank financing in agriculture and rural sector that includes, rural agriculture financing, financial sector development, priority verses deprived sector landing, microfinancing coverage and outreach, legal and policy responses to financial inclusion and different microfinance model in Nepal. The fourth chapter is related to agriculture value chain financing and innovative tools under which issues such as agricultural value chain financing practices, innovative tools i.e. insurance, mobile banking, branchless banking and remittances are explained. Fifth chapter explains five cased studies which includes four cases of selected microfinance institutions and one program with regards wholesale lending.

The sixth chapter is related issues and challenges that elaborate the major issues and challenges with regards to microfinance in agriculture sector of Nepal. Finally, chapter seven is findings of the study and recommendations for improvement.

1.5 Scope and Limitations of the Study

This study begins from the history of rural development and its effectiveness with reference to agriculture sector and its growth in Nepal. The study tries to depict access of finance scenario of Nepal. This study confines with sampled microfinance institutions e.g., from wholesale lending institutions to government owned vs. private-led microfinance institutions related to agriculture sector. It mainly concentrates on microfinancing sector; its outreach, modalities, innovative tools, etc.

Microfinance development and types of microfinance institutions in Nepal, reviewing the related policies related to microfinancing and agriculture financing along with policy response; case studies of selected/sampled microfinance institutions; issues and constraints related to rural vs. agricultural microfinance etc., have been incorporated in the study as far as possible. In sum, this study concentrates on rural development, agriculture sector development activities along with the activities and outreach of MFIs, financial health of sampled agriculture-related MFIs, issues and constraints vs. sustainable development of microfinance sector in Nepal. This study has tried to address the following questions raised during the course of study.

1. What is the rural development scenario of Nepal and why could not it be so successful?
2. How was the agriculture sector of Nepal developed, what is its importance and why it lagged to grow?
3. How microfinance sector grew in Nepal, what shorts of strategies/modalities were induced in this sector and what is its coverage?
4. What shorts of innovative tools were used in microfinance sector with reference to rural finance in Nepal?
5. What was the policy vs. legal responses by the government as well the central bank of Nepal regarding the development of rural vs. agriculture microfinancing in Nepal?
6. What are the major issues and constraints of rural vs. agricultural microfinancing in Nepal for its sustainable development?
7. What is the way-forward and how could rural financing vs. agriculture microfinancing grow in the years to come?

Though there are all together 36 Class 'D' Microfinance Development Banks operating in Nepal especially in the field of agriculture sector, only three of them have been selected for the case study. Likewise, out of five wholesale lending Microfinance Institutions, RSRF and SKBBL have been incorporated in this study. The pioneer agriculture financing institution – Agriculture Development Bank/Nepal has also been selected for the case study. It is obvious that majority of MFIs functioning in Nepal are agriculture centric as most of them operate in rural areas where livelihood of the people is primarily agriculture. As the data used for this study are from different primary as well as secondary sources; in some instances there could be minor inconsistencies. The study has put its utmost effort to minimize the errors and have analyzed with relevant data in each chapters. This study is not an end in itself; it has opened the venues for further research activities especially on the frontiers of rural development, agriculture and rural/microfinancing activities in Nepal.

2. Nepalese Economy and Rural Development

2.1 Rural Development Efforts in Nepal

The term 'rural development' connotes overall development of rural areas with a view to improve the quality of life of the rural people. It is a comprehensive and multidimensional concept, which encompasses the development of agriculture and allied activities, village and cottage industries and crafts, socio-economic infrastructure, community services, and facilities, and above all, the human resources in rural areas (Singh, 1986, pp. 20-21). In fact, rural development is a strategy to enable a specific group of people. It involves helping the poorest among those who seem a livelihood in the rural areas to demand and control more of the benefits of rural development. The group includes small scale farmers, tenants, and the landless families (Chambers, 1983, pp.147). Principally, rural development alleviate poverty, support mass utilization of resources and commercialization of agriculture, provide assurance on food security, create opportunities, infrastructural development of community, facilitation of rural poor for the easy/cheap access to resources, involvement of the rural youth on various development initiatives and there-by gradual modernization of rural society.

Government of Nepal adopted the rural development approach for the development of rural areas only after 1950s through the integrated rural development program. Unfortunately efforts of rural development in Nepal have had fewer achievements as compared to its inputs. Many of the integrated rural development programs in the country have faced problems because sometimes irrelevant programs are set for the target groups and due to lack of proper monitoring and evaluation. Different rural development programs were conducted after 1950s. The first rural development program was the 'Tribhuwan Village Development Program' which mainly focused on development of agriculture, road, drinking water, education and health (Adhikari, 1982). Panchayat Development Program was started in the decade of 1960s; which had three objectives for development and change. They were; institutional development, social mobilization and attitudinal change. Different integrated rural development programs were conducted since the decade of 1970s and continued later giving more priority on saving, road, training, health, agriculture, rural industry, nutrition, etc. Rural development program in Nepal includes community development, integrated rural development, small town development, rural industrialization, and the promotion of farm/non-farm linkages; service sector development in growth poles; cash crops development, agriculture intensification and modernization initiatives using irrigation, chemicals and highly yielding seeds, basic need fulfillment, income generation through employment and so forth (Pokhrel, 2004, pp.130-137). Rural development programs namely Rural Infrastructural Work, Rural Infrastructural Development Program, Agriculture Road Program, Rural Access Program, District Road Support Program, Poverty Alleviation Project, Remote and Rural Area Development Program, etc., were launched in different part of the county (Acharya, 2007, pp. 181-191). Food for Work Program of WFP, Special Public Works Program (SPWP) of UNDP/ILO, Training for Rural Gainful Activities (TRUGA) of UNDP/ILO, Small Farmer Development Program (SFDP), Intensive Banking Program (IBP) etc., were the instances of rural development programs in Nepal (Gurugharana, 1993, pp. 88-91) were also some initiatives in this regard. Additionally, Priority Sector Lending Program (1974), Deprived Sector Lending Program (1990), Production Credit for Rural Women (1982), Microcredit Projects for Rural Women (1993), Community Ground Water Irrigation Sector Project (1998), Third Livestock Development Project (1996), Poverty Alleviation Project in Western Terai (1997), etc., are other examples of rural financing development programs carried out in Nepal in the past (Pradhan, 2005, pp. 114-127).

Periodic District Development Plan was implemented in the Ninth Five-Year Plan (1997-2002) specifically for the development of rural sector. The agriculture sector was also considered as a leading sector in the national economy to reduce the poverty and to increase the employment opportunities. In order to achieve the poverty reduction goals, higher growth rate, equitable distribution and "one family one employment policy" were set forth as the main strategies of rural development in the Ninth Plan (NPC, 1998, pp. 26-27). The main objective of the Ninth Plan was to reduce poverty in order to empower the people economically and socially by integrating the common people in the mainstream of the development process. This plan had targeted to reduce the poverty level by 10% within the period of twenty years. Output of rural development did not seem to be satisfactory during the plan period because of inability to prioritize the project for the rural development, lack of political consensus for the local development and lack of feasibility studies regarding the rural development programs. However, rural community infrastructure works were implemented in 15 districts. Likewise, 47 District Development Committees prepared District Transport Master Plan, different suspension bridges were constructed in the rural/remote areas, and poverty alleviation projects were also implemented in eight Terai districts in western region during the plan period.

Tenth Plan (2002-07) also aimed to support on rural development drive through some programs. The objectives of this plan for rural development was to minimize poverty by making available the access to services and benefits locally to the local people; particularly the people of socially and economically backward areas, casts, ethnicities, groups, etc. During the plan period, local development programs like local body strengthening program, poverty and management program, financial resources management program, human resources development program, local infrastructure development program, economically backward areas and people's upliftment program, social mobilization and self-employment program, integrated reproductive health and population education program were implemented (NPC, 2002). Similarly, Two Three-Year Plans; i.e. 2007/08-2009/10 and 2010/11-2012/13 also accorded priority to ensure the reconstruction of physical rural infrastructure, relief and rehabilitation of the conflict affected people, social integration and inclusion of deprived communities, regions, etc., on the process of development. These plans also aimed to make rural development works more result-oriented by ensuring good governance and effective service delivery (Dahal, 2012, pp. 55-60).

Nepal witnessed only partial success on the front of rural development despite the efforts in the past. The first major failure of rural development strategies has been in terms of low growth rate of production in rural areas. Static nature of agriculture growth over the decades was the major causes of social deprivation and poverty in rural areas. Rural per capita income is far below of urban per capita income. It is observed that poorest strata of the population were excluded in the development process which further fueled poverty, unemployment and socio-economic exclusion in rural areas. The root of inequality in Nepal widened in the past despite the economic growth.

2.2 Basic Socio-economic Indicators

The poverty in Nepal directly or indirectly is related to agriculture sector as some 61% of employed population is engaged in this sector. People involved in agriculture sector are in poverty because of their extremely small and fragmented land holdings, possession of mostly un-productive and non-irrigated land. Unequal distribution of resources (notably land), lack of credit facilities to poor/ultra-poor, poor marketing mechanism, lack of entrepreneurship, inadequate or lack of dissemination of poor-friendly productive technology in the remote areas, corruption, feudalistic exploitations, ignorance, fatalism, etc., are some triggers of poverty in Nepal (Upreti L.P, 2013, pp.119-127).

The poverty profile of Nepal reveals that there is high incidence of poverty in rural areas as compared to urban areas. Of the total population, 41.76% people in Nepal were below the poverty line in 1996 with 21.55% in urban area and 43.27% in rural area. Within nearly one and half decades; the overall poverty level dropped to 25.16% with 27.43% in rural area and 15.46% in urban area. Nepal has decreasing trend of poverty over the decade but the distribution of poverty is still high in rural areas as compared to the urban sector (Tables 24 and 25).

Table 24. Urban Rural Area vs. Poverty Intensity in Nepal

Area	Population below Poverty Line			Poverty Gap			Severity of Poverty		
	1996	2003	2011	1996	2003	2011	1996	2003	2011
Urban	21.55	9.55	15.46	6.54	2.18	3.19	2.65	0.71	1.01
Rural	43.27	34.62	27.43	12.14	8.50	5.96	4.83	3.05	1.81
Nepal	41.76	30.84	25.16	11.75	7.55	5.43	4.67	2.60	2.00

Source: CBS, III Living Standard Survey

Table 25. Distribution of Poverty by the Region

Sector/Region	Poverty Rate (%)	Distribution of Population (%)
Mountain	42.3	7.0
Hill	24.3	44.2
Terai	23.3	48.7
Urban Sector	15.5	19.0
Rural Sector	27.4	81.0
Nepal (Overall)	25.2	–

Source: CBS, III Living Standard Survey

Hill and Terai regions have similar level of poverty while this situation is severe in mountain region where the level of poverty is pretty high of 42.3%. The prevalence of high profile of poverty basically in mountain and hill regions indicate that rural sector is untouched by the government plans, programs and investment in the past. The people of these regions could not be included economically and socially. Access of basic services was little or only trickled down to poor people. Although incorporated in the major development activities, rural people of Nepal still have low access on education, health, communication, road, electricity, etc. Further, socially backward people as well as the minority ethnic groups have even very low access to basic human requirements for survival.

2.3 Nepalese Agriculture Sector

Agriculture is the largest economic sector in Nepal contributing to more than one third of GDP as well as employment opportunities and livelihood to more than two thirds of its population[1]. Given that many Nepalese rely on agriculture for their livelihoods, the investment into the development of this sector can make a difference in the lives of millions of people[2].

As agriculture remains a critical aspect of both lives of the poor and the economies of developing countries. According to World Bank, some 1.2 billion people still live in extreme poverty (defined as less than $ 1.25 per day in PPP) and the three quarter of which live in rural areas. As a result, many of the individuals that fall into extreme poor category rely on agriculture for their livelihood. In Asia and Africa, for example, over 50% of the active population is engaged in agricultural activities, which consists mainly of subsistence farming. It is estimated that the extreme poor spend approximately half of their income to obtain or produce staple foods. Many Individual farmers do not have the resources to invest in expensive inputs such as high quality of seeds and fertilizers, nor do they have fund to store their produce after harvest in order to procure higher prices. Additionally, when farmers need crucial resources to fund their agricultural activities; far too often they must turn into informal sources such as moneylenders, traders, relatives, friends, etc. (IFAD, 2006, pp. 6).

[1] DANIDA, Component Description MLVA, September 2012, page 1.
[2] Ibid

In Nepalese context, agriculture is still a major occupation with its contribution remaining around one-third of its GDP. This sector is also vital for availing employment opportunities, especially in rural areas. Rice, maize, millet, wheat, barley, buckwheat, etc. are the main food staples that comes from agriculture sector. Besides, Nepal produces various kinds of vegetables, pulses, spices, and cash crops side by side. In recent years, many farmers are inclining towards herbs cultivation, organic tea/coffee farming, animal husbandry, horticulture, sericulture and other high-value products. In the context of open international market, it has become an utmost necessity to make the agriculture sector efficient to benefit from comparative advantage through commercialization and diversification of products.

Table 26. Agriculture/non-agriculture GDP growth in Nepal

GDP Growth	2004/05	2005/06	2006/07	2007/08	2008/08	2009/10	2010/11	2011/12	2012/13	2013/14	Average
Agriculture	3.5	1.8	1.0	5.8	3.0	2.0	4.5	4.6	1.1	4.7	3.2
Non-agriculture	3.2	5.3	4.4	5.9	4.3	5.4	3.6	4.5	4.6	5.3	4.7
Overall	3.2	3.7	2.8	5.8	3.9	4.3	3.8	4.6	3.5	5.2	4.1

Source: Economic Survey 2013/14

Despite given top-most priority to agriculture sector in the past, it could not grow satisfactorily over the years. In ten-year time, agriculture sector's average growth has remained 3.2% while the non-agriculture sector has registered a fairly satisfactory rate of 4.7%. During this period, Nepal's annual growth rate stood at 4.1% on an average (Table 26). Nepal has still subsistence farming practice in rural areas as this sector is not fully commercialized yet. The farmers are in need of better seeds, easy access to technical support, orientation for better farming techniques, non-stop irrigation facilities, financial support for cultivation of crops, exposure on best farming practices, etc. Besides, agriculture sector needs concession for importing tractors, irrigation devices and incentives on mechanization of agricultural produce in and outside the country from the part of concerned government line ministries and departments. Agriculture production have found to be fluctuating in nature because of the over dependency on rainfall for the cultivation. Nepal has an erratic trend of the growth of agriculture production over the years. The effect of natural calamities like floods, river bank erosion, drought, landslide, etc. is also the causes of fluctuating agricultural production.

As rural agricultural economy of Nepal is still subsistence in character. Majority of rural households produce agricultural commodities only for their household consumption and rarely for sale. It is because of less access of infrastructure like transportation, market, storage facilities, lack of awareness, etc. For few years, Nepal has been facing food shortage problem. It is expected that some 30 districts of Nepal fall under food insecure districts. Basically, due to poverty, food insecurity and lack of employment opportunities; many youths from the rural areas are migrating abroad in recent years for employment and earnings. This has further retarded the growth of agriculture especially in rural areas. Nepal's rural setting has still potential for the growth of agriculture production because of its richness in soil, forest resource, water, favorable climate, etc. Thus, investment in rural agriculture sector from the part of government as well as private sector would definitely yield a fruitful outcome with an additional produce, employment, earnings and value addition on national economy as a whole.

Modern agriculture is essential for economic development. Employing modern agriculture is possible when farmers become commercial in nature that is well backed by affordable credit for purchasing inputs and fulfilling their other requirements. The sector, however, is largely dominated by the smallholder farmers hence, an accelerated growth of agriculture and its multiplier effects will require market oriented production, value addition and equitable distribution of benefits. While opportunities exist, the agricultural sector faces some major challenges such as weak governance, limited capacity and human resources, access to quality input and market access as well as constraints to access suitable financial products and services. Hence, the current competitiveness of Nepal agricultural products is low and declining.

Use of modern technology increases the demand for credit and results in the increase in agricultural productivity of the small farmers. Access to credit promotes the adoption of yield-enhancing technologies. Government should use credit programs to promote agricultural output (Adam, 1990). For the past couple of decades developing countries have indeed improved their agricultural output by introducing modern agricultural technology such as chemical fertilizers, recommended seeds, tractors and irrigation facilities, etc. It is revealed that impact of institutional credit, fertilizers, seeds, and irrigation on agricultural production was found to be significant (Waqar, 2010, pp.243-251).

Majority of agriculture activities in Nepal are generally located in isolated areas with low population density and poor infrastructure. They are dependent on weather and production cycles; income is seasonal and monetary income is limited. Agricultural prices are volatile and few rich farmers could obtain loan on collateral basis while majority are excluded from formal financial institution's premises (Roux, 2007, pp. 4-9). Growing population and rising wealth in developing countries will not just increase the demand for energy-consuming goods and services. It will also raise demand for products and ecological services from natural resources such as food from agriculture and timber from forest. Meeting the demand sill also require continued increase in productivity of the rural sector (Deichmann, 2013, pp. 343-367).

It is revealed that agricultural credit from bank and financial institution has been increasing over the years. For instance, the total agriculture credit from bank and finance institutions provided for different agricultural and related activities has gone up to 25.3 million in 2012-13 as compared to 16.8 million in 2011-12. This figure further increased to Rs. 35.2 million in 2013-14. This is given in Table 27 provided below. The credit disbursed towards agriculture sector from the bank and financial institutions have been found concentrated meanly on the activities like cereal production, vegetable cultivation, tea/ coffee farming, tobacco farming, cash crops cultivation, horticulture, floriculture, poultry, cold storage, animal husbandry, slaughter house, beekeeping, irrigation, fishery, etc.

Table 27. Allocation of Agriculture Credit for Different Activities

(Rs. '000)

Description	2011-12	%	2012-13	%	2013-14	%
Cereals	1,577.67	9.4	2,152.64	8.5	3,314.27	9.4
Vegetables	1,373.18	8.2	1,709.63	6.8	2,520.13	7.2
Tea/Coffee	970.06	5.8	1,596.97	6.3	2,036.88	5.8
Tobacco	37.65	0.2	14.3	0.1	36.09	0.1
Jute	152.16	0.9	397.86	1.6	457.97	1.3
Other Cash Crops	829.70	4.9	872.62	3.4	1,115.70	3.2
Fruits and Floriculture	524.86	3.1	647.72	2.6	977.42	2.8
Cold Storage	158.91	0.9	410.48	1.6	546.07	1.6
Fertilizer and Pesticides	175.45	1.0	183.07	0.7	230.68	0.7
Animal Farming and Slaturing	2,715.10	16.1	4,484.56	17.7	5,727.45	16.3
Livestock	2,261.29	13.4	3,507.68	13.9	5,449.48	15.5
Beekeeping	50.08	0.3	91.93	0.4	126.78	0.4
Other Agro Services	5,459.41	32.4	8,577.57	33.9	11,372.67	32.3
Irrigation	97.63	0.6	136.39	0.5	148.87	0.4
Forestry and Fisheries	441.94	2.6	519.57	2.1	1,143.60	3.2
Total	16,825.09	100	25,302.99	100	35,204.06	100

Source: Research Department, NRB (2014)

If we see the total loan portfolio of Class A, B, C BFIs, the loan provided for agriculture sector in 2010-11 was quite at lower side (Table 28). Data of Class D BFIs were not available until 2013-14. NRB has issued new policy under which BFIs have to mandatorily invest at least 10% of their portfolio in Agriculture and Hydro-power development. It is assumed that investment of BFIs in agriculture has thus increased slightly now a days.

Table 28. Percentage of loan disbursed by BFIs to agriculture sector

Year	A Class	B Class	C Class	Class D
2010-11	2.6	2.9	1.8	NA
2011-12	3.8	3.7	2.5	NA
2012-13	5.0	4.9	2.7	NA
2013-14	4.2	5.2	3.0	42.3

Source: NRB

2.4 Constraints and Prospects of Agriculture Sector's Growth in Nepal

As agriculture is predominately small-scale, labor intensive and subsistence in our context; small farmers are largely involved in this sector. Therefore, farmers should be kept at the center before formulating any strategy related to agriculture development. Government policies should promote those agro business models which are in favor of small-scale farmers and producers. With regard to market; farmers are disadvantaged as they lack access to major regional and central market centers. Similarly, an access to agricultural credit remains a serious issue especially for small and marginal farmers. They require credit mainly for consumption smoothing and running agro-based enterprises. But in the time of necessity, they face problems in obtaining loans from financial institutions at concessional interest rates. As a result, they are forced to rely upon informal sources that charge excessive interest rates (Khadka, 2014).

Nepali farmers still use traditional wooden tools for the farming in hilly and mountain regions. In fact, traditional wooden plough, sickle and local hoes are still major agricultural tools used throughout country. Besides, farmers also use animal power such as wooden bullock carts as well as rubber tire carts in inner plane reigns. Recently, four-wheeler tractors are being used for tilling purpose mostly in plane areas and two-wheeler tractors mostly in valley. There is itself the bleak scenario of Nepal's efforts on mechanization in agriculture sector. Nepali farmers still practice rain-feed farming system across the country. This has negative impact upon crop yield, mainly due to erratic rainfall pattern. Despite being rich in water resources, neither surface water nor deep boring has been tapped sufficiently for irrigation and there by achieving bumper production of crops. Large scale private investment in agriculture can create employment and transfer of technologies and create forward and backward linkages. Additionally, Nepali youths are not sufficiently motivated to invest their times and money in the agriculture sectors resulting either the land is left barren or feminization of agriculture due to migration of youth (mostly male) in search of foreign employment. It is better that agriculture development strategy should address this issue too and formulate policies to attract youths towards the agriculture sector.

Tenancy restrictions, high land fragmentation, absentee landlordism, and unequal distribution of land pose key challenges to tenure security and in-turn private investment in agriculture. Land disputes are still very common and most of them can not afford to file the cases at the court and judicial process is too lengthy. Moreover, lack of large-scale farming practices still remain. The idea of creating a 'Land Bank' for assisting the poor in accessing land assets by the government are worth exploring although it is not yet clear how this would function. (WB, 2013)

Nepal's agricultural production and productivity has lagged behind over the past several years, while other South Asian countries have made stride towards agriculture self-sufficiency and reliance.

Manufacturing sector has not gained momentum and thus agriculture sector needs to be revamped in order to achieve inclusive vs. sustainable growth and poverty reduction. There are potentialities to establish agro-based enterprises throughout the country and attract the youths toward this drive. Meaningful implementation of the norms of agriculture perspective plan, agriculture policies, development plans, budget programs, etc. would help in developing this sector in a sustainable way. Policy support, capacity building, investment in research activities, infrastructure development, access of finance, use of modern technology, etc., would also help to develop this sector and thereby reducing the poverty and hence exploring the employment opportunities. Additionally, increased investment to enhance research capacity of agriculture research institutions including that of Agricultural Universities and Colleges are extremely important at this juncture in order to respond the declining state of productivity and to increase food security (Pant, 2012, pp. 3-6).

2.5 Policies Related to Agriculture Sector in Nepal

Agriculture Perspective Plan (APP), 1996 of Nepal was the most comprehensive document of 20 years life frame. It covers almost the entire agricultural and rural development spectrum like agriculture, irrigation and water control, livestock, forestry, environment, agribusiness, credit and institutions as well as related rural development topics, including gender issues, roads, power, and the environment (ADB, 2009, pp. 6-10).

The Plan, in input side, priorities mainly on irrigation by shallow tube wells; roads and electrification in rural areas; fertilizer research; retaining fertilizer subsidies, etc. In output investment, it priorities on encouragement to private sector; public investment in the four input investment; making output much more responsive to price signals; concentration of fragmented holdings in the plain areas etc. In the institutional set-up, it priorities for creating implementing agencies for APP; creating a department for agriculture roads; strengthening the Agricultural Development Bank as a lead agency for financing; evolution of the Agriculture Inputs Corporation (AIC), expansion of Nepal Agricultural Research Council (NARC) for producing high-value commodities. Likewise, it also priorities for packaging. In the front of specialization, Terai specializes on cereal production, and the hills and mountains on horticulture, livestock and other high-value commodities. Regarding the agriculture growth, it targets at 4.9% per annum serving as an engine of growth for the entire economy though multiplier effects on the other sectors.

Ninth Plan, Tenth Plan and following other Three-Year Plans borrowed some pertinent contents and sprits of APP focusing the program on agriculture vs. rural development in Nepal. Ministy of Agriculture has accepted prioritized productivity package and had decided to setup a fertilizer unit; Department of Local Infrastructure Development and Agricultural Roads was established within the Ministry of Local Development. APP sub-sector policies were adopted, including National Fertilizer Policy-2002, National Agriculture Policy (NAP)-2004, National Agriculture Enterprise Policy (NAEP)-2007, etc.

Nepal's National Agriculture Policy-2004 has set the long term vision to develop agriculture sector on sustainable, commercialized and competitive way to change the livelihood of people, especially poor farming communities. The main objectives of NAP-2004 were; to increase agriculture production and productivity to make agricultural sector commercialize, developing and consolidating foundation of agriculture system, to conserve natural resources and bio-diversities and its sustainable use; etc. Thus, the main tenet of NAP-2004 was to support on food security and poverty alleviation drive through commercialized and competitive agriculture system in Nepal. Soon after announcement of National Agricultural Policy, 2004; Government of Nepal announced Nepal Agriculture Enterprise Promotion Policy, 2007. The main objectives of this policy were: to support on competitive agricultural production and marketization to develop agro-oriented enterprises and support on the promotion of internal as well as external market expansion of agriculture produce. This policy also aimed to support on poverty alleviation drive through the means of commercialization of Nepalese agriculture sector as by the other policies.

Government of Nepal has released National Agriculture Sector Development Priority (NASDP) for Medium Term 2010-2015. In 2010 with a view of the government's key priority areas on agriculture for the medium term period by reconciling them with the possibilities of attracting support for agriculture development from different development partners. The priorities of NASDP are derived from the analysis of the policies and plans such as APP, TYIP, MDGs; etc. It realized the fact that the low productivity and low production of agriculture sector have not only increased the risks of food insecurity in the country but also accelerated unsustainable use of national resources. NASDP has emphasized a broad based agricultural sector development along with assurance of food security. Likewise, it has committed on delivery of demand-led services, while promoting participation of the private sector in the areas of their comparative advantages. Under NASDP, priority has also been assigned on the ways of diversifying agriculture and enhancing productivity. The priorities of NASDP are: enhancing food and nutrition security and safety; enhancing application of 'getting better' technologies and tools; promoting enabling environment; promoting market orientation and competitiveness; sustaining natural resources conservation and utilization; developing infrastructural facilities; enhancing integration of gender in agriculture; and managing the effect of migration of agriculture labor (MoAC, 2010, pp. 1-6).

Against the back drop of Agricultural Perspective Plan, Ministry of Agriculture Development (MoAD) has formulated Agriculture Development Strategy (ADS) from 2013 to 2014. The ADS is to guide the agriculture sector of Nepal over the next 20 years. Over the course of the period, the structure of agricultural sector in Nepal will change considerably and agribusiness and non-farm activities will grow relatively to agriculture. It is worth emphasizing thus the ADS considers the agriculture sector in its complexities, and encompasses not only the production sector (crops, livestock, fisheries, feretories) but also the processing sector, trade and other services (storage, transportation and logistic, firm, maturity, research, extension). The vision of ADS is "A self-reliant, sustainable, competitive and inclusive agricultural sector that drives economic growth and contributes to improved livelihood and food and nutrition security". It is mentioned that to achieve its vision the ADS will accelerate agricultural sector growth through 4 strategic components related to governance, productivity, profitable commercialization and competitiveness while providing inclusiveness (MoAU, 2014).

3. Bank Financing in Agriculture and Rural Sector in Nepal

3.1 Rural Agriculture Financing: Focused in Asian Context

Socio-economic exclusion is common phenomenon of rural economy in developing countries. Deep rooted poverty coupled with economic exploitation and insecurity; majority of rural farming household members are forced to migrate elsewhere for income and employment to sustain the livelihood. Rural poor farming households obtain rural credit for cultivation and harvesting crop, rear animals, cash crop cultivation, poultry, piggery, pasturing, dairy/milk chilling, marketing of cereals and cash crops, installation threshing mills, buying land and building houses, educating children, involving in social functions, i.e., marriage, death, etc. The sources of credit for marginal farming families are found to be mainly non-institutional and informal. The main players of finance in rural economy are: landlords, money lenders, friends, relatives, etc. Financial institutions, microfinance providers are still not succeeding that much to penetrate through their financial activities in rural economy. Non-institutional credit obtained by such poor farmers is costly and incapable of expansion (Antwi G., 2010, pp. 45-49).

Better access of credit facilitates the poor rural farming families to take advantage of opportunities in high value agriculture. Access to credit makes it easier to farm households to respond the emerging rural non-farm enterprise opportunities. Provision of rural credit to farming household members helps rural agro–based economy in various ways. Credit access can significantly increase the ability of households with some savings to meet their financial needs for agricultural inputs and productive investments. Getting access to credit helps farming households to improve their productivity and management skills and hence increase their income and other benefits such as: health care, education, etc. Small and marginalized farmers are not in a position to provide collateral at least in a form of acceptable to formal financial intermediaries (Sagravio and Ray, 1997, pp. 34-56).

Meaningful injection of credit empowers rural economy and open up more venues of an additional employment, output and helps to reduce poverty. The transformation of rural economy is possible through the injection of low interest-bearing seed-money to deprived farming households and artisans. By this process they could be empowered economically as well as socially. One can witness the significant rural transformation in Asia in the last four decades; identifying technological changes, improved rural infrastructures, and policies that did not discriminate against agriculture as the prime factor that paved the way for a productivity revolution, thereby significantly increasing agricultural output and efficiency. On the other hand, economies that promoted massive state intervention had weak infrastructure, and pursued move inward than outward looking policies, were least successful in achieving an agricultural revolution to stimulate a broader economic transformation (Llanto G. M, 2008, pp. 24-26).

Agricultural production, revolution in food insecurity and rural poverty, and improvement in the lives of rural women represent three important reasons for microfinance institutions to expand into rural area and agriculture. Moreover, many MFIs emphasize serving poor women so that they have an advantage compared to other financial institutions in improving gender balance in access to finance (Meyer R.L., 2011, pp. 1-4).

New paradigm on rural agricultural microfinance was developed during 1990s and contributed to MFI success and emerging microfinance industry. Key elements of new paradigm included a broaden view of rural finance to include farming and rural non-farming activities, recognition of importance of savings, and a belief that market discipline is reinforced through market interest rates for both savings and credits. Likewise, focus of lending form MFIs shifted from meeting supply targets to responding to demand, and the evaluation of financial institution switched from loan disbursement to viability and sustainability. Despite the great hopes associated with the strong growth of microfinance sector; it soon became clear that the supply of microfinance for agricultural activities was marginal at best and poorly adapted. At the same time, with the liberalization of the financial sector, financial institutions did not pick up the slack of government-led interventions in rural areas (Zeller M., 2003).

Almost 70% of adult population of developing countries, or 2.7 billion people, lack access of basic financial services, such as savings account. The regions with the largest share of unbaked populations are sub-Saharan Africa, where only 12% are banked and South Asia, with 24% banked. Within Asia has 53% of the world's borrower while East Asia and the Pacific have 16%. Though Asia has made significant contribution to microfinance; its challenge still is to expand its financial outreach to the large underserved population (IFC, 2012, pp. 7-9).

The average loan balance per borrower in East Asia and Pacific accounted to $ 1,416 while South Asia has just $ 157. Similarly, for deposits per depositor in East Asia and the Pacific has amount at $ 1,870 while South Asia showed the lowest average deposits per depositor at $ 57; which might be attributable to the lower profile of average household assets in the region (Table 29). The targeting of female clients has been one of the major characteristics of the microfinance industry, especially in Asian countries. Women are usually one of the poorest segment of society (Zhang and Mong, 2014, pp. 6-12).

Table 29. Statistics of selected Asian countries on microfinance outreach

Country	GDP Growth rate (%)	Population living below ppp $ 1.25 a day (%)	MFI's Active borrowers to total population (%)	ROA (%)	Average Loan Balance per borrower ($)
Bangladesh	6.1	42.3	14.1	3.67	134
Cambodia	6.5	18.6	9.2	4.04	1,170
China	7.8	11.8	0.04	1.07	23,254
India	4.0	32.7	2.2	10.12	163
Indonesia	6.2	16.2	0.2	4.03	289
Nepal	4.6	24.8	2.6	2.44	250
Pakistan	3.7	21.0	1.1	0.46	156
Philippines	6.6	18.4	3.4	3.19	200
Sri Lanka	6.4	4.1	2.9	1.92	355
Vietnam	5.0	16.9	10.1	2.74	610

Source: Zhang and Mong, 2014.

The statistics on microfinance of selected Asian countries shows that Bangladesh, Vietnam, Cambodia, Philippines have more active borrowers of MFIs as compared to their total population, i.e., 14.1%, 10.1%, 9.2% and 3.4%, respectively. India, Nepal, Pakistan and Sri Lankan MFI's active borrowers to their total population remained at 2.2%, 2.6%, 1.1% and 2.9% respectively (Table 30). Of the selected Asian countries; average loan balance per borrower witnessed the highest; i.e. $ 23,254 for China and the lowest in Pakistan, i.e. $ 156.

Table 30. Indicators of Outreach of Financial Services on South Asian Countries

	India	Bangladesh	Pakistan	Nepal	Sri Lanka	Afghanistan
Bank Branches per 100,000 Population	10.11	5.16	8.68	4.19	9.05	2.00
Bank Branches per 1,000 Km	26.46	43.14	11.73	5.26	21.38	0.49
Deposit Accounts per 1,000 adults	467.40	228.75	119.84	229.49	1,891.74	83.85
Loan Account per 1,000 adults	137.0	54.73	21.93	1.81	12.29	3.32
ATM per 100,000 Population	7.29	–	4.06	1.81	12.29	–
ATM per 1,000 Km	19.08	–	5.49	2.27	29.03	0.39

Source: CGAP and World Economic Forum

It can be seen that there is a wide variation among countries in the South Asian region in terms of deposit account penetration and access of credit. The deposit account per thousand populations varies from 83 bank accounts in Afghanistan to 1891 bank accounts in Sir Lanka (Table 30). Similarly, in terms of loan account penetration, it varies from only 3 bank loan per 1,000 adults in Afghanistan to 137 bank loan per 1,000 adults in India. The ATM location equally varies from as low as 1 in 100,000 populations in Nepal to 12.29 in Sir Lanka. One could guess that there is a wide gap between demand for financial services from unreached and low income farming households and its supply from the formal sources in South Asia.

3.2 Financial Sector Development in Nepal

3.2.1 Financial Sector Development

The role of financial sector is considered to be the vital one in the overall economic development process of a country. As Nepal adopted liberalized policy in the financial sector since the 1990s, the number of financial institutions, since then, continued to grow significantly over the years. Government of Nepal and the Central Bank facilitated further for the establishment and growth of joint-venture banks and financial institutions by introducing appropriate licensing policy since the late 1980s. With such initiations taken by the authorities, the Nepalese financial system expanded rapidly within a short span of time especially during the period of 2007 to 2013. The number of commercial banks, since 2007, increased to 30 from 20, development banks to 84 from 38, finance companies to 53 from 24 and microfinance development banks to 36 from 12.

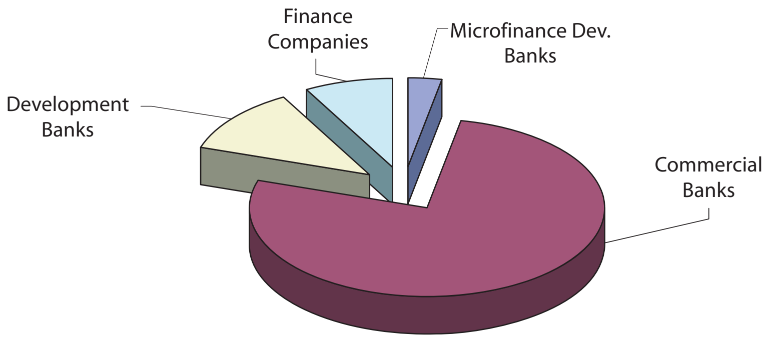
Table 31. Number and Structure of Banks and Financial Institutions

Type	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Commercial Banks	20	25	26	27	31	31	30
Development Banks	38	58	63	79	87	86	84
Finance Companies	24	78	77	79	71	59	53
Microfinance Dev. Banks	12	12	15	18	21	31	36
Financial Cooperatives*	17	16	16	16	16	16	16
Financial NGOs	47	46	45	45	38	36	30
Insurance Companies	21	25	25	25	25	25	25

Source: NRB

* Licensed by the NRB to Carry out Limited Banking Activities

Figure 11. Share of Banks and Financial Institutions in July 2014



The data further reveals that there is still predominance of commercial banks in the financial scenario of Nepal followed by the development banks, finance companies and microfinance development banks respectively. With the institutional presence of banks and financial institutions, the number of the their branches also increased rapidly. At present, 1,547 branches of commercial banks, 818 branches of development banks, 239 branches of finance companies and 826 branches of microfinance development banks are in operation throughout the country (Table 32). According to this figure, average number of people getting bank services has reached 7,724 per bank branches. This number was 8,475 in 2012-13. There are tentatively 12,515,000 deposit accounts at the BFIs while some 919,000 people have utilized credit facility from these banks.

Table 32. Class-wise distribution of banks and financial institutions' branches

	No. of Branches							
	2005	**2007**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
A Class	422	470	752	987	1,245	1,425	1,486	1,547
B Class	–	–	–	–	495	687	764	818
C Class	–	–	–	–	281	292	242	239
D Class	–	–	–	–	–	569	646	826

Source: NRB (2014)

Despite the expansion of commercial and development banks' branches in different parts of the country; they have not been fully successful to incorporate the poor/deprived rural population and are still found to be reluctant to penetrate in remote/rural communities.

Despite many efforts in the past, formal financial sector's outreach has not been that much satisfactory. Of the total population, the access of formal financial services has penetrated about 40%. This means some 60% Nepalese people are still relying on informal sector for their financial transactions. Majority of banks and financial institutions have been found to be cluster in and around accessible urban areas. As financially excluded households are higher in the remote hills, mountain and terai regions and among the poorest households; exclusive reliance on informal financial activities are more common in these regions. Although we find a cut-throat competition among the big financial institutions in the urban areas like Kathmandu valley due to the steady increase in the number of financial institutions, a large number of poor people in the remote/rural areas still remain at un-banked stage. Hence the formal financial system is not that much successful to serve large part of nation's population; even though access to financial services is indeed an essential support for the inclusive growth, job creation, poverty reduction and enhancement of prosperity and welfare of rural poor households.

3.2.2 Development of Microfinance in Nepal

Nepal has nearly two and half decades of experiences of microfinance. Although many rural financing programs were implemented in Nepal in the past targeting poverty alleviation, only microfinance programs initiated during 1990s are seen as pro-poor and rural centric. Nepal Rastra Bank, as a leader of financial sector of Nepal, has been playing a key role in the development of microfinance sector in Nepal. NRB took a lead to establish five rural development banks during the 1990s replicating the *Grameen Banking Model* of Bangladesh. As of now, the number of microfinance development banks (MFDBs) has reached 36, with 5 of them operating as wholesale lenders. Likewise, the number of NRB-licensed cooperatives and FINGOs stood at 16 and 29 respectively.

With the establishment of all these microcredit institutions, the rural poor households could succeed to obtain small loans to increase agriculture production and to run heterogeneous income generating activities throughout the country. In the meantime, wholesale lending mechanism for microfinancing institutions has been initiated since the 1990s with the establishment of Rural Self-Reliance Fund. The Fund is a unique pro-poor rural financing program jointly initiated by the central bank and the government. Its activities have already been spread in 68 districts, benefiting some 46 thousand deprived/poor households through its credit facilities via cooperatives and FINGOs as of mid-October 2014. The other wholesale lending microfinance institutions established and thereby operating in the microfinancing sector of Nepal are: Rural Microfinance Development Centre (RMDC), Small Farmers Development Bank (SKBBL) and First Microfinance Development Bank (FMDB) and RSDC Microfinance Institution.

MFIs and cooperatives serve farmers and suppliers to a greater extent when compared to commercial banks. However, their products and services have a number of limitations. A majority of the MFIs in Nepal follow the Grameen methodology, in which groups of 5 people come together and guarantee each other's loans. The maximum obtainable amount in the absence of physical collateral is NPR 200,000 while with the physical collateral (commonly land) it is NPR 500,000 (however land is difficult to place as a guarantee especially for women, for example only 10.7% of women in Nepal own land and/or house). The latter is considered as an individual loan, which means there is no group-based guarantee. Commonly, loan terms are up to one year and feature monthly repayments; the annual interest rate ranges between 18% and 24%. The government regulator sets these maximum loan limits for group-lending and individual-lending; however, the regulator does not limit the interest rates. The loan limits are set so as to oblige MFIs to continue to serve the poorer segments of the population. A cap on loan amounts, in the eyes of the regulator, ensures that MFIs' continue to service the poor. In Nepal, the microfinance sector predominately serves female clients, almost 98% of the microfinance institutions serve women (UNCDF, 2012). In effect, with technical support in areas of product design microfinance institutions would better meet the needs of their clients engaged in agriculture.

As of mid-July 2014, total loan of Rs. 34.05 billion has been disbursed from all the MFDBs; Rs. 11.82 billion from the NRB-licensed 16 cooperatives and Rs. 9.1 billion disbursed from the NRB-licensed FINGOs. As per the wholesale lending aspect, a cumulative loan of Rs. 1.5 billion has been disbursed from the RSRF through the cooperatives and the NGOs. Likewise, wholesale lending of Rs. 2.6 billion from RMDC; Rs. 4.5 billion from SKBBL and Rs. 1.0 billion from the FMDB have been disbursed to various retail microcredit institutions for further lending to the poor and deprived households.

3.3 Priority Sector vs. Deprived Sector Lending Program

3.3.1 Priority Sector Lending Program

Nepal Rastra Bank introduced the concept of compulsory Priority Sector Lending Program (PSLP) for commercial banks in 1974 with the main objective of injecting institutional credit through bank and financial institutions to meet their social obligations with reference to rural development vs. poverty reduction. PSLP has been carried out in Nepal with its different names during its implementation stage, such as: Small Sector Program, Supervised Credit Program, Intensive Banking Program (IBP), etc. In the initial period, commercial banks were directed to invest 5% of their total deposits into small sectors. Later on, the provision based on total deposits changed into total outstanding loans and the limit was revised to 7% of their total outstanding loans. Again the ratio was increased to 10% and 12%. Intensive Banking Program was designed with project viability, area approach and regular supervision. In the beginning, IBP was spread in 27 districts and it was later expanded to the entire 75 districts. However, IBP was dropped due to policy weaknesses and implementation hurdles. Finally, PSLP was phased-out in 2006-07.

3.3.2 Deprived Sector Lending Program

The PSLP was split into two sectors in 1990; creating a new program called 'Deprived Sector Lending Program (DSLP)'. This new program was aimed to meet the small credit demands of ultra-poor and marginalized people of the Nepalese society. All three financial institutions (A, B and C class), they were directed either for direct lending to the people below poverty line or do wholesale financing to those financial institutions which are involved in rural and microfinancing activities; such as ADB/N, FINGOs, GBBs, SACOS, private sector MFIs, etc. They were also allowed to make share participation in Rural Microfinance Development Centre (RMDC) or GBBs instead of wholesale financing. If they (Class A, B, C BFIs) fail to meet the target, they had to pay specified penalty.

This program still prevails for Class A, B and C BFIs where they need to divert up to 4 to 5% of their total lending towards the deprived sector. It also includes lending to biogas, small hydropower, turbines, and nun-polluting vehicles as well. In Fiscal year 1991-92 Nepal Rastra Bank made a mandatory provision for commercial banks to flow a prescribed percentage of the total credit to the deprived sector. Subsequently, this mandatory provision was also implemented for development banks (class-B) and finance companies (class-C). Currently, commercial banks, development banks and finance companies are required to extend deprived sector credit at the rate of 4.5%, 4.0% and 3.5% respectively on the basis of their total loans and advances. As per the unified directive issued to BFIs by Nepal Rastra Bank; deprived means low income and especially socially backward women, tribal people, dalit, blind, hearing impaired and physically incapacitated persons, marginalized and small farmers, craft-men, labor, less squatter family, etc. All microcredits should be extended for the self-employed income generating activities conducted by the deprived people.

Nepal Rastra Bank has opened up a wholesale window for deprived sector ending to requirement under which bands and financial institutions can extend wholesale lending to microfinance institutions. For this purpose, the following loans extended indirectly by "A" "B" and "C" class licensed institutions will qualify for deprived sector lending:

- Wholesale loan extended against the institutional capability and institutional guarantee to the "D" class licensed institutions and bodies established for performing microcredit related works under the prevailing statutes relating to financial intermediation activities;
- With a view to improve the level of income and to enhance employment for those living below poverty line, deprived or people with low income; wholesale loan may be extended to qualified co-operatives established and operated in rural area upon appropriate evaluation by

"A", "B" and "C" class licensed institution and the concerned banks shall monitor as to whether or not such loan has been utilized in the deprived sector and submit the report to Nepal Rastra Bank in every six months;

- Extension of wholesale loan to "D" class microfinance development banks established for the purpose of providing wholesale credit to small farmer Cooperatives and other microfinance institutions;

Moreover, bank and financial institutions are required to submit report in every six months regarding the utilization of the extended credit towards deprived sector from the institutions, which were provided with wholesale credit with the intention of including the same under the deprived sector lending.

Table 33. Disbursement of deprived sector credit by BFIs

(Rs. million)

	2009	2010	2011	2012	2013
Direct Disbursement	3,481.13	4,006.66	5,517.59	5,398.47	7,676.02
Indirect Disbursement	10,083.93	10,339.36	10,759.66	14,598.42	22,034.67
Total Disbursement	15,574.06	16,356.02	18,288.25	22,008.89	31,723.78

Source: NRB

Regarding the total deprived sector lending through BFIs, it has amounted to some Rs. 32.0 billion (Table 33) till end of 2013. Out of the total disbursement, the banks themselves have disbursed some one-third as loan while rest of the two-third was provided through the other financial institutions. All together about 1.89 million rural poor households are assumed to be benefited through the microcredit facilities for different income-generating activities.

Table 34. Deprived sector credit extended by banks and financial institutions (BFIs) in 2013-14

(Rs. million)

Particulars	Class A	Class B	Class C	Total
Total Loans and Bill Purchase	**658,131.2**	**110,012.1**	**67,748.4**	**835,902.6**
Deprived Sector Loan/Total Loans (%)	3.2 %	3.5%	2.4%	3.1%
Direct Lending/Total Loans (%)	28.6%	71.1%	59.2%	36.7%
Indirect Lending/Total Loans (%)	71.4%	28.9%	40.8%	63.3%
A) Direct Lending	**5,927.73**	**2,701.34**	**970.18**	**9,599.25**
1. Agriculture	4,357.27	1,312.04	198.21	5,867.52
2. Domestic Industries	226.69	141.88	13.84	382.42
3. Services	749.28	183.78	128.41	1,061.46
4. Others	594.49	1,063.64	629.72	2,287.85
B) Indirect Lending	**14,813.85**	**1,098.33**	**669.71**	**16,581.9**
1. Institutional Lending (Wholesale)	14,374.18	914.33	594.65	15,883.2
2. Share Investment	439.67	184	75.06	698.72
C) Youth Self-Employment Loan	**3,437.88**	**254.36**	**1,736.55**	**3,865.8**
Total (A + B + C)	**20,741.58**	**3,799.67**	**1,639.89**	**26,181.1**

During 2013-14, BFIs lend some 26 billion rupees as per deprived sector lending. Out of this figure, some 20.7 billion rupees was disbursed through the commercial banks, followed by 3.8 billion rupees by development banks and 1.6 billion by the finance companies (Table 34) Out of total deprived-sector lending, some 16.6 billion rupees was disbursed through other financial institutions while some 9.6 billion rupees was disbursed by the BFIs themselves.

3.4 Microfinancing, Coverage and Outreach

Microfinancing activities in Nepal are setup with diversified modalities; private sector modality, community-based modality, project-based modality, deprived sector centric modality, wholesale lending modality, etc. The microcredit programs such as PCRW, MCPW, GBBs, GBBRS, etc; fall under gender-based modality while the programs like RMP, PAPWT, TLDP, CGISP, etc; comes under project-based modalities. Under wholesale modalities, there are program like RSRF, RMDC, MFDB, SKBBL, etc. Similarly, the microfinancing activities carried out by FINGOs and some of the SACCOs in Nepal come under the community/deprived sector-based modalities. The different microfinancing institutions operating in Nepal with different modalities are functioning as a legal entity as they obtain necessary approval either from the central bank or government authorities like Department of Cooperatives or office of the Chief District Officer. Besides, a number of NGOs involved in financial intermediation in informal sector as well as Self-Help Groups (SHGs) are also rendering microfinance services in rural areas. Some of such institutions are found to be promoted and developed by I/NGOs, Ministry of Local Development, Poverty Alleviation Fund, multilateral donors like UNDP, etc.

It is estimated that only about one-third of Nepalese households have access to formal or semi-formal financial institutions, while remaining two-thirds still have no access to institutional financing and rely on informal sources of financing. These financially excluded households are higher in numbers in the hilly and mountainous areas. They account almost 80% of the the total households and 75% of the poorest households. Exclusive reliance on informal lending is more common in the western regions of Nepal; nearly 77% (ADB/M, 2010, pp. 6-10). The Third Living Standard Survey depicts that some 39.9% households have access to bank branches within 30 minutes walking distance and 53.9% households have access of cooperatives within 30 minutes walking distance. Of the total accessed households, 32.8% poorest farming households have access to the banks at a walking distance of 3 hours or more. In the case of cooperatives, some 15.8% households have access to cooperatives at a walking distance of 3 hours or more. Despite various efforts in the past, formal financial sector's outreach has not been that much satisfactory. Presently, of the total population; the access of formal financial services has penetrated on about 38%. This means some 60% Nepali people are still relying on informal sector to obtain services for their financial transactions. Majority of banks and financial institutions have been found to be clustered in an around accessible urban areas (Adhikari, M.P, 2013, pp. 26-27).

The outreach of 'D' class microfinance institution's clients in rural areas have reached to 1,127,642 out of which 844,992 have taken loan. These institutions are presently working in 68 districts of Nepal. It is seen that the government initiated MFIs have been working in each of the five development regions of Nepal with Paschimanchal GBB and Madhayamanchal GBB have the highest number of district coverage, 14 each, and Purbanchal GBB has the lowest coverage 6 districts only. Government initiated microfinance development banks have the lower number of borrowers (135,616) as compared to privately initiated MFIs (506,906 borrowers) and wholesale microfinance institutions like SKBBL, RMDC, FMDB, etc. (206,462 borrowers) (Dhungana, B.R, 2014, pp. 141-151). Similarly, Rural Self-Reliance Funds (RSRF), the wholesale lending fund promoted by the Government of Nepal and the Nepal Rastra Bank, activities has been spread in 68 districts of Nepal with 46,081 beneficiary households members. The Fund has provided loans to some 886 cooperatives and 53 NGOs amounting Rs. 610.3 billion by July 2014 (NRB, August 2014).

Cooperatives are also one of the major players of agriculture microfinancing in Nepal. Most of the wholesale MFIs usually provide microcredit loans via such cooperatives to the small and marginalized rural families. These loans are concessional to run heterogeneous agriculture and allied income generating productive activities. There are approximately 30 thousand primary cooperatives registered and cover 30% financial transaction contributing 3% to country's GDP. These cooperatives' deposit remains at Rs. 158.1 billion with the outreach of 243,259 persons (DOC, July 2014). There are 8,838 agriculture cooperatives throughout the country and their members have stood at nearly seven thousand belonging mostly with the rural farming families. Of the total cooperatives functioning in Nepal, nearly 50% belong to the saving and credit cooperatives, some 18% are multipurpose cooperatives and 14% are agriculture cooperatives (Kshetry Deependra B, 2014, pp.109-115). We can find 37 Nepalese MFIs having up-to-date financial data at MIX Market Network. Accordingly, these MFIs affiliated with MIX Market Network comprise over 800,000 active borrowers with more than US$ 1,000,000 in loans (MIX, March, 2014, p. 2).

There are 29 FINGOs in operation in the country. Their cumulative outreach and portfolio figures as of mid-July 2014 are: total members 11, 60,318 with total loan outstanding Rs. 24.6 billion and total savings Rs. 10.7 billion. Besides, Financial NGOs, Self-Help Groups, Mother Groups, User Groups; etc. are also involved with the agriculture microfinancing activities in rural areas of Nepal. They are more in numbers but can not be figured-out because of the unavailability of formal data of such institutions. One can say that microfinance sector is still less developed sector in Nepal. There is ever-growing demand of credit by the poor rural farming families to involve in various income generating activities; this has not been mitigated by the established MFIs on full fledge. Thus, such rural farming families are still relying on informal sources for their credit needs. These loans consist of relatively higher interest rates as compared to that of formal institutions. It is assumed that some one third of ultra-poor Nepalese who reside in rural areas are still by-passed by either financial activities rendered by FIs/MFIs or different government financing programs launched for them.

3.5 Legal and Policy Responses to Financial Inclusion

Government of Nepal and Nepal Rastra Bank have been involving themselves in the policy formulation and program initiation regarding the rural financing vs. microfinancing since almost four decades. In this aspect, microfinance development banks, financial intermediaries non-governmental organizations (FINGOs), and some of the saving and credit cooperatives are regulated by the NRB under the Banks and Financial Institutions Act (BAFIA), Financial Intermediary Act and Cooperatives Act. Moreover, District Administration Office of the government also regulates the NGOs under the Institutions Registration Act as well. Saving and credit cooperatives are also regulated by the Department of Cooperatives. Presently, 16 cooperatives, 29 FINGOs and 36 microfinance development banks are in operation doing microfinancing under the regulatory and supervisory jurisdiction of Nepal Rastra Bank.

Nepal Rastra Bank has always been positive and proactive in creating a conductive policy environment for the rural financing as well as the microfinancing activities. As already mentioned that NRB induced many directed lending programs for bank and financial institutions since the 1970s. Latterly, it has initiated the Deprived Sector Credit Program since the 1990s. Recently, Nepal Rastra Bank has directed the bank and financial institutions to extend at least 10% of their total loan portfolio in productive sectors like agriculture, energy and rural versus small industries and has also urged them to upgrade the existing ceiling to 20% by 2015.

Nepal Rastra Bank has been involving with the promotion of microfinance development banks through its prudential policies. In this move, Monetary Policy announced by NRB for 2014-15 has reduced the existing refinance rate from 5% to 4% for the productive sector like agriculture, hydropower, animal husbandry, fishery enterprises, etc. for the expansion of productive sector. As per the policy, the rural farming families could be involved in micro-enterprises activities by the BFIs if the project cost is up to Rs. 5 lakhs in rural areas. Similarly, it has also announced to increase the existing ceiling of deprived sector loan from Rs 150,000 to Rs. 200,000 for the good clients and the groups. By the mean time, the credit ceiling for micro-enterprises belonging to deprived people has also been increased from Rs. 400,000 to Rs. 500,000. The policy has also announced to set the provision Rs. 3 million credit without interest to be provided to the 'D' class MFIs which open their branches in inaccessible targeted remote areas. Similarly, it also has urged the MFIs to use innovative tools in rural areas. It has further announced to unveil a 'National Financial Literacy Strategy' so as to have more access of finance vs. meaningful inclusion in the years to come.

Nepal Government's 13th 3-Year Plan (2013/14-2016/17) has aimed to graduate Nepal from the least developed country to a developed country by the end of 2022 with the reduction of poverty to 18% by that time. This plan has aimed to grow agriculture sector and non-agriculture sector by 4.5% and 6.7% respectively during the plan period . The plan has committed to invest 15% of the total budget portfolio in agriculture sector during the plan period. The plan aims to have more access and presence of financial institutions in rural areas so as to have economic activities especially on meaningful transformation of agriculture sector with the provision of more self-employment opportunities. The strategies as the intensification of deprived sector credit program with some reforms; magnification of the activities of MFIs in rural areas and more disadvantage peoples' involvement in cooperative institutions, private sector and local NGO's involvement on agriculture, rural credit and microfinance etc. were the prime strategies of the plan.

Following the spirit of the 13th plan, Government's annual budget for 2013-14 had also committed on the transformation of Nepalese agriculture sector. Accordingly, budget had emphasized marketing, modernization and commercialization of agriculture sector in order to increase the production as well as the productivity. It had also committed to launch a 20-year Agriculture Development Strategy, subsidy for chemical and organic fertilizer, improved seed and technology to the farming communities, etc. The budget had also spelled on the launch of small and cooperative irrigation program in 75 districts and subsidies to the fish farming families to have fish ponds as well. Additionally, the budget had also set the program targeted to the rural youths in agricultural commercialization including provision of training, technology and seed money to run agro-based enterprises in rural areas.

The Government's Budget for 2014-15 also accepts agriculture sector as the backbone of the economy. Accordingly, it also aims to modernize and commercialize the agriculture sector. This budget targets to employ rural youths (under **Youth Employment Fund** launched by the Government) and attract them for involving them in the activities like vegetable farming, animal husbandry, herbs production and collection, poultry, goat farming, slaughter house management, fish farming, mushroom cultivation, floriculture, sericulture, etc. For such activities, rural youths are to be provided loans via commercial banks on 6% interest rate with 4% subsidy provided by the government. The budget also commits for 75% concession on interest rate especially for the poor and marginalized people who are engaged on various agricultural income generating activities. On the policy front, the Government of Nepal has unveiled the National Microfinance Policy in 2007. It basically aims at reducing poverty by the means of sustainable, easy and accessible microfinancing services.

Some of the Basic Features of National Microfinance Policy, 2007

- It has defined 'microfinance' as the financial business of providing institutional financial services to the destitute and low-income families desirous of operating self-employment enterprises. The financial business of this type covers microcredit, micro-insurance and small remittance payment system.
- The major objectives of the Policy are: i) To help to formulate necessary laws and rules; ii) To extensively operate small-scale income and employment generation programs; iii) To make microcredit supply system easily accessible; iv) To help the MFIs to develop the capacity needed to be established in a sustainable and self-efficient manner; v) To help in the capacity development of MFIs to ensure that they provide services in a coordinated and sustainable manner; and vi) To develop an appropriate institutional machinery for the management of microfinance, and also establish second tier institutions.
- Among the major policies stated are: i) The Government and the Central Bank will function as promoters, facilitators, supervisors, regulators and monitors, and help in formulating and implementing legal, institutional and financial systems and function machineries. ii) A law relating to microfinance business will be enacted. iii) The registration, licensing and renewals process of MFIs will be made more simplified. iv) Assistance will be provided by the Government to the MFIs

on the basis of the self-capacity development plans. v) Government's poverty alleviating programs will be linked to microfinance policy. vi) Favorable atmosphere will be created for MFIs; interest of the beneficiaries will be promoted and availability of services will be guaranteed. Special care will be taken to avoid policy and functional duplications. vii) Government and the Central Bank will act to establish affiliation between FIs and MFIs through policy facilitation. viii) MFIs will also be developed as agents of commercial banks to go to the rural areas. ix) Explicit criteria to be used for identifying destitute families and system of group guarantee will be strengthened. x) With the assistance of and in coordination with the Government agencies, government programs related to infrastructure development, poverty alleviation, technology, agro-based technology and value addition, and capital formation programs like credit-plus approach will be operated in rural and remote areas in coordination with MFIs. Local body of the Government will also be mobilized in this task. xi) Flexible policies will be adopted to ensure the flow and accessibility of microfinancing services to rural areas as well. xii) A national-level microfinance development council, microfinance policy implementation steering committee, microfinance development fund and II tier institutions will be formed/established for the development and coordination of micro finance activities. xiii) In the course of extending microfinancial services, micro savings, insurance, credit, and money transfer services will be extensively operated in the rural areas. xiv) Microfinance will be developed as the foundation stone of the development of rural infrastructure, and coordination will be established with plans and programs of the Government.

3.6 Microfinance Models used in Nepal

A rapid upsurge in microfinancing programs has been witnessed in Nepal since last three-and-half decades. Within this period, various microfinance programs have undergone in Nepal with diversified methods and modalities. The modalities of microfinancing activities differ from MFIs to MFIs and region to region. In the plain and low land area, where density of population is higher, Grameen model of group-based microfinancing practices are dominant. In remote hill areas, Self-Help Groups (SHGs) and individual loan practices prevail more. Some of the prevailing models of microfinancing is discussed below.

3.6.1 Grameen Model

Prof. Mohammad Yunus of Bangladesh developed a new model in the field of microfinance, called Grameen Banking Model. This model is based on group solidarity mechanism in which credit is tied to savings and focus exclusively to women. Five Grameen Development Banks established by the government initiatives and other MFDBs including private-sector microfinance development banks which have got license to perform microfinance activities as "D" class MFIs have adopted the 'Grameen Model' to cater financial services to the rural clients. Nirdhan Utthan Bank Ltd., Swabalamban Bikas Bank Ltd., Chhimek Bikas Bank Ltd. DEPROSC Development Bank Ltd. NERUDE Laghu Bitta Bikas Bank Ltd., is some of the private sector MFIs commenced during the initial period in Nepal.

3.6.2 Small Farmers Cooperative Models

Agriculture Development Bank Ltd. (ADBL) initiated a newly developed financing concept for cooperatives known by the name of 'Small Farmers Cooperative Limited' which is, in fact, a convergent form of old Small Farmers Development Program (SFDP). The main objective of the transformation of SFDP was to ensure the viability and sustainability of microfinance institutions which would be managed and administered by the members themselves.

3.6.3 FINGOs Model

This is the latest form of development in microfinance in terms of financial intermediary. There are many unregistered NGOs engaged in either microfinance activities or social and community development activities. However, only 47 NGOs were permitted by the central bank for limited banking activities. After the promulgation of Financial Intermediary Act-1998, a broader scope was created for NGOs to function as financial intermediaries in Nepal. It helped to mobilize savings and promote credit activities among the women groups in the country. As of now some FINGOs have been de-licensed and some has already transferred into Class D Microfinance Institutions. Therefore, only 29 FINGOs are currently operating in the country.

3.6.4 Directed Lending Model

Priority sector lending model was introduced in early 1970s when the banks were directed to lend 5% of their total deposits in small sectors. This was renamed as 'Intensive Banking Program (IBP)' in 1981 and banks were directed to lend at least 12% of their outstanding credit in agriculture, cottage industry and service sectors. This program was phased out in 2007. Similarly, Deprived Sector Credit Program was introduced by the NRB since 1991. In this program, BFIs are required to lend a specified portion of total outstanding loan to deprive sector directly or through other MFIs. Commercial Banks, Development Banks and Finance Companies are currently required to lend at least 4.5%, 4.0% and 3.5% respectively of their outstanding loans to deprived sector.

3.6.5 Cooperative Model

The cooperative model emerged in Nepal in early 1950s. This is a member-based organization, registered with the objective of self-help development among the members. As of mid-July 2014, around 30 thousand cooperatives have been registered with the Department of Cooperative. Of which, some 13 thousand are Saving and Credit Cooperatives (SACCOs). Such SACCOs provide microfinance services to their members for running income-generating activities. Out of them, only 16 SACCOs including National Cooperative Development Bank have been permitted by the NRB to do limited banking transaction till date.

3.6.6 Project-based Model

There are many external donor agencies that are providing technical and financial assistance to develop the rural financing activities in Nepal. IDA, ADB/N, UNDP, UNICEF, UNIFEM, EU, IFAD, USAID, CIDA, etc., are the major agencies helping the microfinance sector through different projects. Some of the major donor-funded projects carried out in Nepal in the past were PCRW, MCPW, PAPWT, TLDP, CGISP, RMP, EASF, A2F etc. Most of these projects have been already phased-out.

3.6.7 Wholesale Model

Wholesale microfinancing was introduced in Nepal with the establishment of Rural Self-Reliance Fund (RSRF) in 1991 by the joint initiation of the Government of Nepal and Nepal Rastra Bank. Another institution called Rural Microfinance Development Centre (RMDC) came into existence in 2000 to cater wholesale financing needs of MFIs. This Centre was also responsible for institutional capacity building of MFIs and capacity building of clients of partner organizations (POs) as well. Similarly, in 2002, another wholesale microfinance institution called Sana Kisan Bikas Bank Ltd. (SKBBL) was established to provide wholesale lending to small farmer's cooperatives. Likewise, wholesale institution called National Cooperative Development Bank (NCDB) was also established in 2003. Similarly, First Microfinance Development Bank also came to existence in 2009 as a wholesale lender in Nepalese microfinance sphere. Another wholesaler RSDC has also begun its operation from 2013.

4. Agriculture Value Chain Finance and Innovative Tools

4.1 Agriculture Value Chain Finance in Nepal

Value chain may be defined as a full-range of activities which are required to bring a product or service from conception, through the different phases of production. The component or modes of the chain can include of inputs, production, transportation, processing, exporting, importing, wholesale, retail and consumption (Raphel and Morris, 2001). Value chain involves the sequential linkages through which raw materials and resources are converted into products for the market. Agricultural value chain (AVC) identifies the set of actors (private, public, including service providers) and a set of activities that bring the basic agricultural product from production in the field to final consumption, where at each stage value is added to the product. It may include production, processing, packaging, storage, transportation, distribution (AFDBG, 2013, pp.4-7). Agriculture finance is more than just finance; financial service need to be linked or integrated with other services including input supply, post harvest storage, processing, marketing, research and technology, training and extension, among others (Sing Anup, 2012, pp. 3-8). When an agriculture value chain approach is adopted, a comprehensive approach is required to identify key constraints and the necessary linkages among the key criteria for agriculture value chain development. Transportation, markets and other infrastructures need to be linked to production and market information to achieve better results (ADB, Jun. 2013). Agriculture value chain finance is a strategy to intervene different points of the value adding production process, namely; a) Financing for the agricultural inputs, b) Financing SME type of agro-business, c) Financing for large agro-bases industries, d) Financing for marketing to the retail vendors, and e) Financing for extension services (Khatiwada Y.R, 2013). While approaches and applications vary, most of the value chain approaches have several common characteristics: including a market system perspective; a focus on end market; and emphasis on value chain governance; recognition of the importance of relationship; a focus on changing firm's behavior and transforming value chain relationships; targeting leverage points; and empowering the private sector. In the Asian context, most of the financing by bank and financial institutions happens at up-stream level of the value chain where in the financial institutions advance loans to the chain leaders such as; processors and wholesalers who in turn, bring in liquidity in the chain (APRACA, 2012, pp. 73-75).

Over the decades, Nepalese financial sector has expanded and the number and type of financial intermediaries have grown rapidly. Still access to suitable financial services remains limited for many people; especially of rural hills and mountains. Access to diverse financial products and services is an indispensable component for successful participation in market economy and effective implementation of value chains. In order to expand access to sustainable financial services along with value chains in rural areas of Nepal, financial institutions need outreach support and technical assistance to develop wider client network, appropriate products and procedures of lending. Increased coordination and cooperation among value chain actors to address financial gaps for the smooth flow of products from firm to markets is also important. In short, the growth of commercial agriculture in Nepal is linked to certain extent, to the growth of appropriate rural finance mechanism including improved value chain finance practices (Mercy Crops, 2011, pp. 4-12). Producing commodities alone will not help rural farmers/producers if they can not sell their products and if there is little value added at their end of the value chain. It is equally important to link rural producers/farming families with markets and sustain and grow these links so that they form a perpetual growth cycle of production and consumption (GTZ, 2007, pp. 1-8).

The value chain approach is progressing and being integrated into proper development programs to increase the benefit to producers. Value chain provides information to identify where the producer can add value to the product or service in order to increase the benefits. Value chain development is indeed sequence of activities such as design, production, marketing and distribution, as well support services to such activities. Although upper hill and mountain communities and farming families of Nepal are often involved in production of high value products and services; their potentialities is limited by remoteness combined with the lack of basic rural information. This limits not only their capacity to access markets but also to obtain financial services and information (ICIMOD, 2009)

Nepalese agriculture sector is dominated by the production of basic staples grains. About 82% of cultivated land is planted with cereal crops, but the basic staple grains contribute only about 30% of Agriculture Gross Domestic Product. Since the share of high-value crops in total cultivated areas is still small, the desired process of agriculture diversification is struggling to be noticed at the aggregate level. The reliance on subsistence level agriculture hinders the growth and contributes less on the drive of poverty reduction and food security.

The major financial services and products currently offered by different BFIs to value chain actors in Nepal are: working capital loans, LC facilities, fixed asset loans, re-financing facilities, short-term loans, money transfer facilities, etc. The facilities provided by the banks, MFIs, FINGOs and Cooperatives are as follows:

Financial Institution	Financial Services Offered
Commercial Banks	• Working capital loans • Letter of Credit • Fixed asset loans • Refinancing • (Savings accounts)
Microfinance institutions	• Short term loans (1 year) • Savings product • Money transfer and remittances
FINGOs and Cooperatives	• Short term loans • Savings Products

4.1.1 Instances of Agriculture Value Chain Financing in Nepal

Rural farming families of Nepal are involved with value chain initiatives on agro-based commodities like vegetables, cereals, ginger, milk; high value crops like cardamom, tea, organic coffee, etc. Besides, rural farming families are also engaged with lokta (Nepali paper), allo (hams), banana paper, bay leaf, goat rearing, etc., under value chain production, marketing and up to export practices. Such initiatives are supported by the development agencies like IFAD, Mercy Crops, UNCDF, ADB, GIZ, PACT, Helvetas, and ICIMOD etc. Some cases of value chain activities in Nepal are discussed below.

Case 1

Nepal has been involved with value chain financing activities in dairy sub-sector of agriculture. This instance could be drawn from 'Siddi Milk Producer's Cooperative' in Rupandehi District. This cooperative originates from its 52 members who own very few land and only local cattle. The management of this cooperative took initiative to have milk chilling centre and made approach to the Himalayan Bank. Under deprived sector lending, this bank was needed to allocate 3% of the total loan to the deprived sector. Finally, the bank's Butwal branch signed a tripartite agreement between the Bank, Dairy Development Corporation (DDC) and Siddi Milk Producer Cooperative in July 2009. The Cooperative obtained loan on 10% interest to buy high-breed cattle. All together 19 members obtained loans to purchase total of 25 high-breed cattle. Now the cooperative is able to increase milk production from 100 to 250 litres per day. Based on the market price of about Rs. 30 per litre for high fat milk the added value amounts to almost Rs. 1,600,000. After deducting the total interest and loan repayment installments of Rs. 430,000; the members involved are enjoying a gross benefit of about Rs. 1,170,000 per year.

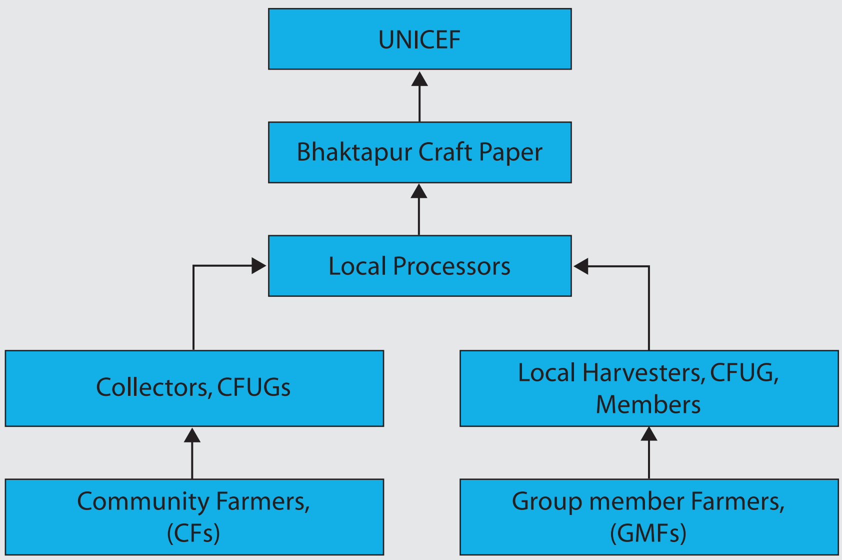
Case 2

Bay leaf value chain is another instance and ongoing action research project implemented by the Udayapur District Chapter of the Federation of Community Forestry User's Nepal in collaboration with ICIMOD. The project villages are located at a distance of four to five hours walk form the nearest market centre. More than 80% of the beneficiaries are from Magar ethnicity women. Women in this project usually work 18 hours a day, from 3 a.m to 9 p.m. During their day, the main time consuming tasks for women are grinding and husking grains during five month harvesting season. Income form the commercial scale of bay leaf has increased the safety net of family involved. The price of bay leaf increased from Rs. 8 to 10 per Kg to Rs. 16 per Kg; an increase of 60 to 100%. A poor farming family can now earn up to Rs. 7,000/- per season from bay leaf collection and sales. As women's involvement is greater in most bay leaf value chain activities, and they are also responsible for managing their respective households; the increased income has contributed to ease the living condition of women, in particular, the whole family, in general. (ICIMOD, 2013, pp. 1-10)

Case 3

Value chain on non-timber forest products; such as Allo and Lokta are being practiced in rural Nepal. Lokta is a wild shrub grass geographically and abundantly in most Himalayan forest in Nepal between altitudes of 2,000 to 4,000 meters. It is estimated that some 110,481 meters of raw Lokta is available in Nepal. Lokta paper is usually manufactured from inner-bark of the plant and is made in remote hilly areas by local farming families at the household level. In recent years, many forest users farming groups have also started to produce the paper on large scale by establishing community-based enterprises. Average price per Kori (200 sheets) paper, based on quality of the paper, ranges between Rs. 1,400 to Rs. 1,800 in Kathmandu. Nowadays, Lokta paper is widely used for producing stationary products, wrapping papers, boxes, bags, greeting cards, Thanka paints, wall papers, etc. The demand of such products is high in international market as well (Subedi A., 2011, pp. 27-37)

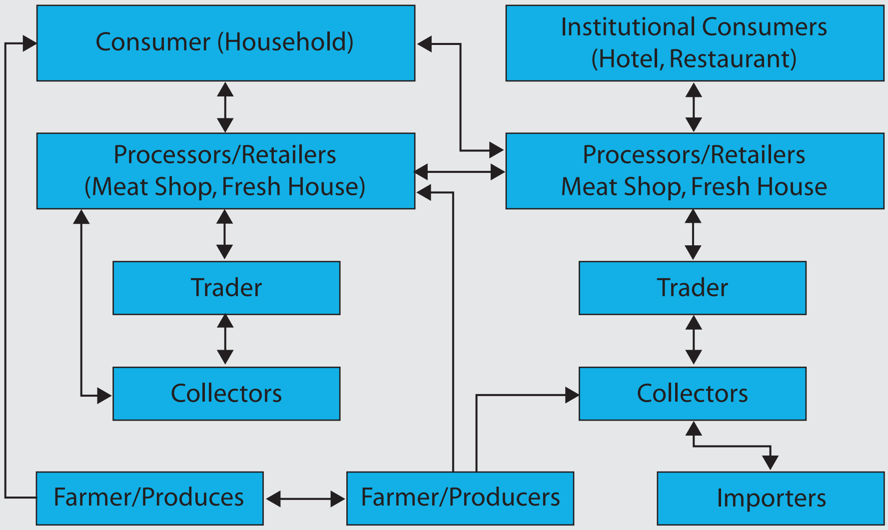
Figure 12. Value Chain Layer of Lokta Collection



Case 4

Goat in recent years has been recognized as one of the most important livestock that has widely been adopted in programs for poverty reduction, livelihood enhancement, and food nutrition security in Nepal. Goat form an integral part of the mixed crop/livestock farming system and contribute substantially to poor farmer's income, thus the national economy. A crude estimate based on income elasticity reveals that the total demand for goat meat in the country is about 70,000 MT with the gap of 8,932 MT. This equals 565,300 additional goat annually. The demand for goat meat is growing with the pace of urbanization and increase in income with the influx of remittance in Nepal. In fact, rural farming families of hilly and terai regions are involved in goat rearing activities so as to have additional income earnings for sustaining their families. Now days youths are also attracted towards goat farming practices. Additionally, deprived women and ethnic communities are also involved with goat rearing activities in Nepal (HIN, 2012).

Figure 13. Goat Value Chain Actors



4.2 Innovative Tools for Microfinancing in Nepal

It is realized that loan to poor households and women of lower income strata is not sufficient to sustain Microfinance, to reduce the prevailing level of poverty and inequality and to meet social needs. Thus, various microfinance institutions have been equipped with insurance products, mobile and branchless banking practices, transfer of remittance from one place to another, value chain financing activities, etc. The importance of technology is increasingly acknowledged in the microfinance sector. Especially for financial institutions with few or no branches in rural areas, the use of innovative tools such as payment transfer though mobile phone may be crucial to reach to the potential clients. In addition to payment transfer services, now a days mobile banking practices can provide a wider range of financial services. The use of such innovative technologies can not only increase client's access to financial services in remote and rural areas but also reduce operational costs of financial institutions in providing financial services for clients in those areas (Omata, 2013)

Presently, the youths of developing countries are migrating to developed countries for the shake of job and earnings to sustain their livelihood. They are remitting back the money to their home countries through banking as well as non-banking channels. They are serving those earned money to their household members living in remote/rural areas. Financial institutions including microfinance institutions are involved in the remittance services in developing countries. Remittance has become one of the innovative products in microfinance. Overseas remittance inflows have helped the developing countries to strengthen their balance of payments and upgrade the economic status of the worker's family members who usually reside in rural areas and are often poor. However, there are some concerns, which if addressed, will maximize the development impact of remittance flows. Firstly, doing the fund transfer easier and cheaper way could attract larger flows. Secondly, directing the fund flow from consumption to productive investment would pave the way to ensure more sustainability. Thirdly, inclusion of remittance in microfinance activities would further facilitate for poverty alleviation campaign in developing countries (Sander, 2009, pp.7-20). Particularly after 1990's decade for the developing countries, provision of microcredit is often not enough to empower disadvantaged clients. Particularly, for those engaged in the low entry and high competition business sector, it is hard to scale up their small scale enterprises by receiving loan alone. In addition to credit; they (clients) are dire need business training programs along with knowledge of information technology. A number of MFIs in developing countries offer life insurance to cover risks of death or lack of care during the old age. Most often, however, the contract only covers the borrower's outstanding debt in the case of death. This is the case, for example, for BRI or ASA in Bangladesh. BRAC, on the other hand, offers a life insurance contract that pump a pre-determined sum in case of the member's death (Zeller, 2000, pp. 7-10).

4.2.1 Agriculture Insurance

Agriculture insurance is a complex line of business that requires highly technical expertise, both in development and operational phases. Private insurance markets have proved to be an efficient, without public intervention, for dealing with non-systemic risk and large farmers, but purely commercial insurance may not be that much viable for systemic risks for small farmers. The primary role of Government should be to address market and regulatory imperfections in order to encourage participation by the private insurance and re-insurance industry (Mahul, 2010). Crop Insurance enables farmers to remain credit-worthy even in the time of major crop loss and to avoid falling into the poverty trap. Agriculture insurance has two major short comings. Firstly, they usually cover only yield variation and not price variation, which limits their contribution to income stability. Secondly, writing insurance contracts for large numbers of small farmers and covering out the overall inspection is very costly. However, agricultural production can increase if the vagaries of nature and the risks associated with it can be better managed (Hazel, 1986).

One third of agriculture land is under irrigation and therefore the majority of Nepali farmers are exposed to adverse weather events. Insurance can facilitate access to agricultural credit at better term as it increases the credit-worthiness of farmers and other agents of the agriculture sector (WB, 2009, pp. 1-7). Although history of non-life insurance goes back to 1947 in Nepal, they still have not practiced the agriculture insurance products. Nepal formally announced crop and livestock insurance program to be launched from January 2013 which is mile-stone in agriculture insurance. Before introducing crop and livestock directive, 2013; many schemes were already in practice and some run short span of time in the past via cooperatives, NGOs, financial institutions and government projects under the technical and financial assistance of international development agencies. Most of the livestock insurance program had linked with the bank credit for livestock purchase. Deposit and Credit Guarantee Corporation (DCGC), Community Livestock Development Project, Small Farmers Development Limited, Community Livestock Development Program, Centre for Self-help Development etc., are the institutions that are involving with livestock insurance program in Nepal. DCGC was established in 1974 aiming to ensure the deposits and lending of bank and financial institution. DCGC currently ensures the deposit up to Rs. 200,000 per depositor and small scale lending by all banks and financial institutions to regarding agriculture, cottage industry, small and medium size enterprises, service sectors etc. In FY 2011/12, Rs. 4.48 million loss was compensated by this entity to farmers against the 227 cattle owners out of total 8,166 cattle insurers with amounting Rs. 235.4 million (DCGC, 2012).

Though there is the prospect of crop insurance schemes for the small farmers in Nepal, it has not been meaningfully materialized yet. Some instances of locating agro-product insurance schemes could be found in some districts of Nepal, for example; in response to the huge amount of banana damaged by strong winds of several hundred farmers in 2005 in Chitwan and Nawalparashi Districts; local farmers established Agriculture Insurance Multipurpose Cooperatives in 2006. The insurance scheme was supported by Department of Agriculture Development since 2007. Similarly, vegetables farmers of Ramnagar VDC, Nawalparashi District were also supported by the government with the insurance scheme against comprehensive hail, drought, flood, landslide and wind coverage for their vegetables and cereal crops. The government supported only technical aspects and farmers earned confident and skill to run the mutual insurance. However, such schemes were not found to be expanding as expected (WB, 2009).

Number of agriculture insurance products are tested and implemented in various developing countries. Products that are popular in one country may not be suitable for another countries having similar weather and climate settings. Insurance products are designed as per addressing the local risks. In Nepalese context, risks associated with the crop and livestock are similar to that of Asia, South Asia and Asia-Pacific regions. Basically, weather and climate variation is the major risk in Nepalese context. Basic and widely used crops in Nepal are; paddy, maize, wheat, millet, barley, potatoes, etc. The risks over such crops are hail, wind-storm, excess rain, drought, frost, landslides etc. However, types of risks are different in mountain, hills and terai. Mountain region is mostly affected by frost, snow-storm, drought, landslides. Hill is affected by hail, landslides, flood, drought, excess rain and wind-storms. Likewise in terai, flood is most risky factor for the crops followed by excess rain, drought, mist etc.

It is revealed that micro insurance services in Nepal have been delivered in unsystematic and unorganized way in the absence of proper rules and regulatory framework. Currently running different agriculture insurance schemes by non-commercial insurers (government agencies, NGOs, Cooperatives, Mutual groups, etc.) are in very small scale and have very limited coverage. Scaling up the agriculture insurance programs nationwide; it needs a separate workable mechanism. Additionally, Nepal has more poor and small farming families involved in agriculture sector. Such poor and ultra-poor farming families have less area of cultivable lands. Due to this reason, they deserve more subsidies on the premium with reference to agriculture/crop insurance. In fact, insurance premium subsiding practices is very common in India, China or Bangladesh. It has been revealed that the government expenditure in agricultural sector has no significant impact on agriculture production in Nepal. Nepal government requires spending certain portion of agriculture expenditure to promote agriculture insurance subsidies so that marginalized small farmers can get benefits to uplift their socio-economic status. Recently, Insurance Board (IB) of Nepal has made the agro-insurance mandatory for the non-life insurance companies of Nepal. These companies are directed to insure paddy, vegetables, fruits, potatoes and poultry (Arthiknews, 2014)

4.2.2 Mobile and Branchless Banking

Mobile technologies can facilitate access to financial services, such as cash deposits and withdrawals, third party deposits into user's account, retail purchases, over-the-air prepaid, top-up using cash in the user's account, transfer of cash, etc. Mobile banking vs. branchless banking has great potential to extend the distribution of financial services to the poor farming communities who are not reached by the traditional bank branch network; it lowers the cost of delivery, including costs of delivery channel of the banks as well as the cost of services render to the customers. Despite such advantages, mobile banking presents challenges to regulatory capacity, as it cuts across various regulatory domain including banking, telecommunications, payment systems, anti-money laundering, etc. South Asia is now a fertile ground for branchless banking, with 33% of its population benefiting from basic payments and banking services. Branchless banking practices took-off first in Brazil starting a decade ago, spurred chiefly by two large state-owned banks and a unique partnership between a private bank and the national postal services. Among the Asian countries; Bangladesh, Laos, Nepal and the Philippines more than 10% of account holders already report using bank agents (Asian Century, 2014).

Mobile banking practices for developing countries like Nepal can offer services such as: domestic and international fund transfers, withdrawal at banking agent/branches, micropayment handling, mobile recharging, utility bill payment processing, peer to peer payments, pension fund disbursement, etc., in a cost-effective way. There are, thus, potentialities of expansion of rural banking in an easy and user-friendly way through such innovative devices in Nepal. Rural ATMs, plastic cards like smart cards, biometric cards including mobile payment (branchless banking) technologies do have the ability to engage in the unbanked sections including rural farming households and their members (Gaire, 2014). In the context of Nepal where there are few members of financial institutions in the rural remote areas; the branchless banking practices can initiate the access of people in the financial sector. Furthermore, as this service provided through agents can help in increasing the deposit habits of the rural farmers (Adhikari, 2013, pp.342-346).

Even though use of electronic payment systems has been spreading with the advent of new technology; South Asian Nations have not made such head-way in this sector. It is estimated that only 0.5% Nepali adults use electronic systems to make payments. The figures are similar for Bangladesh and Sri Lanka as well. India, in this region, has the highest rate of 2% (Share Bazar, 2014).

The data reveals that only 0.3% of Nepali adults use mobile phone to pay bills, 0.4% use mobile phone to send money, and 0.3% adults use mobile phone to receive money. For saving, credit and insurance purpose only 9.9% adults use a formal account in Nepal (Nepal News, 2013).

Use of mobile banking in Nepal is at the beginning stages however commercial banks are increasing their investment and involvement in this area. And by large, among the commercial banks, there is more emphasis on technology as a way to reach rural areas. As the expansion of voice and data services across the country combined with lower cost technologies (mobile phone and point of sale) is being increased; the commercial banks are increasing their interest and investment in the area of mobile and branchless banking.

Client and agent acquisition are the most expensive aspects of launching a service, often leading to projected losses in the initial phase. Therefore helping providers to find the balance and focus on the activity levels of clients and the quality of agent service is vital in the initial period. A key driver of such activity can be bulk payments, such as G2P, or targeting specific uses for the service, such as paying employees, small-scale suppliers or loan disbursements and collection.

Case 4.2.2.1
Technology to Bring Banking Rural Nepal

"Rupa Thapa, 66, of Pognath Village, Dailekh District, has put her thumb imprint on legal documents many times. But this time, instead of inking her thumb she was pressing it on a scanner. "Fingerprint Authenticated", says the machine in metallic English. Rupa giggles at the automated response. Instantly, the machine operator hands her Rs. 1,800 along with a receipt. Rupa says she will buy food for the family with the money. Rupa was the first person in Dailekh to receive a smart card under 'Sajilo Banking Sewa' (Easy Banking Service) launched by the Siddhartha Bank Ltd. aiming at to bring in Nepal's remote areas into the banking net. As a pilot project, the cards were distributed to people under the UN's World Food Programme, 'Cash and Food in Dailekh' (Nepali Times, 2014).

Nepal Rastra Bank has issued an unified directive to bank and financial institutions related to e-banking which covers branchless banking, mobile banking, internet banking, e-card, etc. This directive forbids to have such services in urban areas of Nepal targeting more access of finance in rural and financially excluded population residing in mountain, hill and terai regions of Nepal (NRB, 2013, pp.262-266). NRB has thus prioritized branchless and mobile banking services in rural areas as one of the inclusive finance tools (NRB, 2013, pp. 19-21).

Branchless banking has been identified as an important model of increasing e-banking access to the people residing in rural and remote places of Nepal. Everest Bank Ltd., Siddhartha Bank Ltd., Mega Bank Ltd., Rastriya Banijya Bank Ltd., Bank of Kathmandu Ltd., Century Bank Ltd., Prime Commercial Bank Ltd., Nepal Investment Bank Ltd., etc. have already received approval from NRB to use smart cards and start agent banking to provide financial services particularly to rural/remote clients. **Finacess** a mobile platform has developed a mobile application called "Hello Paisa Nepal" to allow swift transactions for money using smart phone devices. Laxmi Bank Ltd. has launched these kinds of services in Kavre and Sindhupalchok districts. With 'Hello Paisa' program, the costumers will be able to conduct their financial transactions like paying bills, sending/receiving remittance within the country or abroad in an easier way. Following **Hello Paisa** initiations, various other commercial banks as well as other mobile platform has entered in the market.

4.2.3 Remittance

The phenomenon of remittances is closely related to the structural change affecting developing countries, especially to rural areas. One or more members of a family usually migrate abroad and support their families by sending a small amount of money every month or send an amount occasionally to meet the emergencies or special opportunities. In 2013, migrant workers have send back home an estimated amount of USD 450 billion in case of developing countries around the world. These funds are basically used to cover up their basic necessities like food, clothing and shelter that are essential to lift millions of people out of poverty circle (IFAI, 2014, pp. 2-7).

Almost half of the households of Nepal are having at least one migrant abroad or a returnee. Estimates of the number of Nepali migrants abroad vary widely. The most frequently cited estimate, including seasonal workers working in India and those who use informal channels is about 4 million. This is almost equivalent to one third of the working male population in Nepal. Foreign remittance in Nepal is now contributing a quarter of the income of all households and almost two thirds of the income for this receiving money from abroad (WB, 2011). By 2013, the amount of inward remittances to Nepal stood at Rs. 434.5 billion against Rs. 359.5 billion in 2012 (NRB, 2014). It is revealed that almost every one is migrating- the rich, the poor farming family members from Mountain, Hills and Terai, and from all the country's five development regions. Most of the Nepali migrant workers abroad are aged between 20-44 years; and mostly migrating from rural areas. As a result, there is the scarcity of agriculture labor force particularly in rural areas. This has resulted deceleration on agricultural production in one side and rising of labor-wage on the other.

According to the Household Budget Survey Report – 2008 published by Nepal Rastra Bank, out of the total households surveyed (920); 624 households reported to having their family members working abroad. The countries they were working ranged from India to Nigeria and accounted for more than 38 countries. Of the total received amount, remittance received by the rural households stood at 31%. Out of this amount, 41% was found to be spend on repaying debt and buying land/houses in rural areas. Similarly, a rural household used 12% was used on education/health while 5% was saved at the financial institutions. Around 5% of the remittance was used for social services and investment by the households in rural areas (NRB, 2013, pp. 73-75). During the migration period, almost three-quarters of the returnees migrant Nepalese were found involved in daily-wage work in manufacturing or construction sector or involved in security guard work or working as technical worker. But after returning from India or abroad, more than two third is found either involved in agriculture or remain inactive.

The economic benefit of inward remittance lies on the meaningful use of remittances in productive sector at the grass root level. It has been found that most part of the inward remittances in Nepal is found to be used for meeting the daily expenses like food, clothing, housing, health care, education, and land purchase in urban areas. Remittance income is also spent on mending houses, buying cattle and for imported consumption goods like TV, Washing Machine, Car, Vacuum Cleaner, Refrigerator, etc. Nepal still lags on the productive and meaningful use of remitted money at the micro and meso level. The remitted money in Nepal have not been penetrated meaningfully in rural areas which could be used as a seed-money for marginalized farming families to run heterogeneous income generating activities related to agriculture vs. micro businesses. Indeed, remittance could mitigate the vacuum of finance in rural areas of Nepal. Meaningful utilization of remittance in the sphere of Nepalese rural finance sector through the policy initiatives from the part of government and the central bank could do a lot on the front of rural development and microfinance activities expansion in the country.

Additionally, the increasing proportion of absentees (7.3% of total population or nearly 2,000,000 of population) Nepali abroad basically youth is already imparting the demography of hills and is likely to be a major factor influencing the problem and prospects of hill development. Unless domestic employment opportunities are expanded, particularly for the youth, any drastic decline in the demand for Nepali labor abroad will have serious far-reaching consequences for political economy (Sharma P., 2014, pp. 40-59).

5. Case Studies of Sampled MFIs

Five institutions, basically related to agriculture microfinance, have been selected for the case study. They are: Rural Self-Reliance Fund (RSRF), Agriculture Development Bank, Nepal (ADB/N), Sana Kisan Bikas Bank Ltd. (SKBBL), Paschimanchal Grameen Bikas Bank (PGBB) (now, merged with other GBBs and named as 'Nepal Grameen Bikas Bank Ltd.') and Nirdhan Utthan Bank Ltd. (NUBL) are taken for the case study and there by accessed their activities, outreach as well as financial status. Similarly, cases of few success stories of these institutions have also been depicted in this study.

5.1 Rural Self-Reliance Fund (RSRF)

The RSRF was established in 1991 for providing credit to the rural deprived people and farming families for carrying-out heterogeneous income-generating activities using their skills, labor and other local resources available in agriculture sector, and thereby helps people to achieve economic self-reliance over the years. Government of Nepal and NRB jointly provided the initial seed-fund to the RSRF. NRB has been executing the program since 1991. This Fund is entirely operated by the Microfinance Promotion and Supervision Department of NRB. Currently, the seed-capital of this fund is Rs. 795.4 million; where the government shares Rs. 540 million and NRB holds Rs. 253.4 million.

The target group of the RSRF is individuals of rural households and rural farming families having less area of land. Additionally, those who can not meet the minimum annual consumption needs for their family members from their family income also are the target group for this fund's loan facilities. Usually, the RSRF provides microcredit to the rural cooperatives and NGOs on the basis of total share capital, their reserve fund and profit status. RSRF provides small loan up to NRs. 90,000.00 per borrower. The interest charged to the credit is just 8%. It is noteworthy that the clients (cooperatives/NGOs) will get back 75% of the interest rebate in the case of timely repayment of installments of their loans so as to build up their institutional capacity.

Table 35. Progress of RSRF

(Rs. million)

	2009	2010	2011	2012	2013	2014
No. of Cooperatives	351	443	495	653	667	886
No. of NGOs	53	53	53	53	53	53
Loan Disbursed	270.0	403.0	479.0	919.9	1,211.0	1,523.0
Repayment Rate	92.5%	93.7%	94.6%	96.4%	96.3%	96.4%
No. of Beneficiary HHs	17,990	22,950	23,548	32,240	40,004	46,081
District Covered	51	54	57	62	62	68

Source: NRB

The activities of RSRF are expanding rapidly over the years. The data depicts that some 46,081 deprived farming households of rural areas have been benefited from the concessional credit rendered via cooperatives and NGOs through this fund. Till date, 886 cooperatives and 53 NGOs are the beneficiary institutions. Fund's loan disbursement to the deprived households and farming families stood at Rs. 1,523 million by mid-July 2014. Presently, its repayment rate is at 96.4% and the district covered by its activities is 68 (Table 35).

Success Story-1
Aairawati Multipurpose Small Farmer's Cooperative, Pyuthan

Aairawati Multipurpose Small Farmer's Cooperative Limited, was established in 2002 with the initiative of 44 poor farming household members of Dhungegadhi at Pyuthan District. This cooperative is involved with ginger production/processing, bee keeping, vegetable farming, turmeric production/processing etc. This cooperative had obtained the credit worth Rs. 2.3 million from RSRF and was involved with the above mentioned income/employment generating activities. There are all together 646 members associated with this cooperative, of which 264 are women and 88 are disadvantaged ethnicities. Presently, its total share capital stands at Rs. 1,071,100 and total saving stands at Rs. 6,902,086. This institution is also supported financially and technically by the institutions and donors as: RMDC, MEDEP, GTZ, USAID also.

Success story-2
Narayan Multipurpose Cooperative, Dailekh

Narayan Multipurpose Cooperative Limited, established in 2000, has a share of 1,850 members. It has been launching different income vs. employment generating programs for its members related to agriculture; such as animal husbandry, commercial ginger, turmeric and soya-bean farming. It has obtained a concessional loan of Rs. 3.8 million in total few years back from RSRF. This cooperative has also been launching 151 improved water mills cooperating with AEPEC/ESAP/CRTN. Likewise, cottage solar systems have been installed in 4,651 houses. Easy installment loan facilities have been provided to trained entrepreneurs of small industries in co-operation with MEDEP/UNDP as well. Commercial ginger farming in 20 hectares, turmeric farming in 10 hectares and programs of animal husbandry like pig husbandry, hybrid cow/buffalo farming are being launched within its members. Some 50 hectares of land has been used for turmeric and soya-bean farming in this year alone. The cooperative also has been providing necessary technical facilities for its members.

5.2 Agricultural Development Bank Limited (ADBL/N)

Agricultural Development Bank Ltd., was established in 1968 in Kathmandu with the objective of raising the socio-economic status of rural population through the delivery of credit and technical assistance. Thus, the bank launched "Small Farmer's Development Program (SFDP)" in 1975; a community-based program with the credit-plus approach. To meet the wholesale requirements of small farmers cooperatives limited (SFCL) for further lending to small farmers; ADB/N established the Small Farmers Development Bank (SFDB) in 2002. The main thrust of transformation of SFDP into SFCL was to ensure the viability and sustainability of microfinance institutions working in rural areas on behalf of deprived family households, which would be managed and administered by the members themselves. This bank started Small and Micro Enterprises Development Program in 1990s. This bank's total borrowers have reached 172,317 persons of which 82,590 are agriculture sector related borrowers. Its cumulative loan disbursement currently stands at Rs. 531,987 million. This bank has provided loans basically for the activities like crop cultivation, cash crop cultivation, animal husbandry, poultry, purchase of power tiller/ tractors, agriculture producer's marketing, tea/coffee/cardamom farming, horticulture extension activities, etc.; to the marginalized, small and medium scale farmers of rural areas. It has also invested Rs. 180 million under the heading of youth and small entrepreneurial program.

Success Story
Ram Shovit Mukhiya

Ram Shovit Mukhiya, a resident of Pipra VDC, Mahottari District, the daily wage worker in the past has been able to change his economic status gradually when he involved in fish farming some 9 years back. He started the fish farming in his neighbor's rented pond just with Rs. 25. He bought 125 baby fishes with Rs. 25 that Ram Sovit had earned from doing labor work in the farm field. After six months of efforts he succeeded to earn Rs. 4,800/- with these 125 baby fishes. As his earnings began to increase steadily with the small scale fish farming; he determined to have the loan from the Agricultural Development Bank so as to expand the business. With some administrative processes, he obtained the loan of Rs. 800 thousand from Agricultural Development Bank and ran the organized fish breeding/farming business with the more leased-land of 20 bighas. Ram Sovit named this enterprise as 'Kajal Fish Breeding Firm'. He has succeeded to produce fresh fishes, fish food and breeding of the fish too through which he currently produces 250 million baby fishes for the sale. Ram Sovit's fish firm produces some 30 quintal fishes annually and is traded in urban areas like Birtamod and Janakpur. He even has started to export fishes to India as well. He has currently employed 60 persons in his fish firm. The amount of loan obtained by Ram Sovit from Agriculture Development Bank has currently amounts at Rs. 8.1 million. He has established himself as a model fish entrepreneur in the area. This model has been also found to be replicated by other marginalized farming family members of his area.

5.3 Sana Kisan Bikas Bank Limited (SKBBL)

Sana Kisan Bikas Bank Ltd. (Small Farmers Development Bank) was established in 2002 with the initiation of ADB/N for continuously providing financial and non-financial services to the Small Farmers Cooperatives (SFCLs) and also to supervise and build their institutional capacities. SKBL has set itself as an exemplary model in the formation process by allowing representation of self-empowered institution of small farmers. Along with this, it has also started replication programs to increase outreach, livestock insurance, social and community-based programs and institutional capacity building programs in coordination with the GoN and other international supporting agencies. The general public holds 30.2% shares in this institution. Till April 2014, the number of partner institutions of this bank has reached 418; among them 345 are SFCLs and 73 are other microfinance institutions in 55 districts. It is providing services to 344,000 poor and underprivileged households, where delinquent loans are below 2% and the repayment rate is above 98%.

Success Story
Avinandan Giri

Avinandan Giri, the resident of Salmanglong, Ilam was the employee of Tea Estate who changed his destiny when he involved in Tea plantation and processing business nearly 3 decades ago after the initiation of SFDP in Ilam district. Mr. Giri with his few colleagues planted tea plants in 20 ropani of land involving in SFCL Ilam nearly two decades ago and succeeded to earn money gradually from tea business. He had faced with hand to mouth problem before involve in the tea business, but now he has 600 ropani of land plots in the form of tea estate and employing more than 22 persons in his 'Shree Aantu Tea Industry' as the permanent laborers. This Tea Estate is currenly supported financially by SKBBL and produces more than 800 kg of Organic Tea and even exports to UK on a regular basis. Its turnover currently is around NRs. 2,500,000 per year. Mr. Giri says "prosperous future of Ilam has indeed hidden on expansion of organic tea business with the use of rural unemployed youth."

5.4 Paschimanchal Grameen Bikas Bank Ltd. (PGBBL)

Paschimanchal Grameen Bikas Bank Ltd. (PGBBL) was established in Butwal, Rupendehi in 1995. The Bank has extended its service in 14 districts of the Western Development Region. Among them, 11 districts are in the hill and 3 districts are in the terai region. Following the Grameen Banking Model, the Bank has been operating through 44 branches and 5 unit offices located in the hill and Terai. It has comparatively stronger presence in the hill. It aims to improve the income and employment of the poor households through increased access to financial services, women empowerment, supporting growth in existing business. It offers loan for micro-enterprise, SME, agriculture, education, seasonal business, foreign employment, bio-gas plant and solar purposes. Though there is no specific market study, most of the loan products offered by this bank focuses on production activities such as vegetable farming, livestock, dairy, poultry, bee-keeping, street business and fruit farming. It provides credit facility for the poor especially to the female of disadvantage group of rural area. It accepts deposit from group member as group savings and personal savings. Additionally, it has initiated several types of community-based development programs such as skill development, adult education, social awareness programs, sanitation and health. It also provides various types of social services to its clients.

Table 36. Outreach of PGBB

(Rs.'000)

Outreach/Portfolio	Units	2010	2011	2012	2013	2014
District Covered	No	14	14	14	14	14
VDC Covered	No	350	384	392	393	377
Area/Branch/Unit	No	40	43	44	44	49
Member	No	49,899	55,853	58,324	64,707	66,967
Borrower	No	38,350	40,877	40,338	39,090	37,884
Center	No	1,333	1,420	1,493	1,568	1,631
Total Staff	No	201	197	217	217	223
Loan (cumulative)	Rs.	6,870,099	8,229,837	9,778,281	11,752,089	14,060,261
Loan Repayment	Rs.	6,135,573	7,325,696	8,850,276	10,648,979	12,696,966
Loan Outstanding	Rs.	734,526	904,141	928,005	1,103,110	1,363,295
Write-off Loan	Rs.	20,677	18,363	16,756	15,045	14,174
Total Loan Outstanding	Rs.	713,849	885,778	911,249	1,088,065	1,349,121
Saving Mobilization	Rs.	207,104	268,056	305,024	338,390	399,073

Source: PGBB

Success Story
Yam Kumari Thapa

Yam Kumari Thapa of Butwal Municipality of Rupandehi district was landless woman before 13 years ago. She was residing in landless village with small hut. Her husband was working as a domestic worker in India. She had to take care of 3 children. Her daily life was very pitiable. She tried to get loan from local landlord, friend or relatives but no one believed her. In the mean time she heard about PGBB and made a five member group to get loan from this bank. She got Rs. 10,000 loan from this bank and started goat keeping. She ran her goat keeping business for two years. It worked satisfactorily. After two years, she sold all the goats and started taxi service and tea stall. After few years, she diverted her attention towards furniture industry. Now, she is conducting a furniture industry and providing employment to 5 persons as well. Furniture produced by her industry includes sofa, tables, chairs, etc., which are becoming famous in Butwal city and are sold as hot cake in the market. In this way, her livelihood has been changed. She has made her own house of five rooms including two business shutters in the main street of Butwal city. Besides, she has purchased two costly pieces of lands at the main city area. Her husband gave up his labor working job in India and returned to help her. Now, all of her family members are living together. Her husband is also busy in the furniture industry that she had run. She has become one of the regular clients of PGBB and has got 15 cycles of loans. Now, she has become an idle and model entrepreneur for rest of the landless persons in her locality.

5.5 Nirdhan Utthan Bank Ltd. (NUBL)

Nirdhan Utthan Bank Ltd. (NUBL) was established in 1999 as the Nirdhan (NGO) which was later transformed to bank. Although the microfinance operations were transferred to Nirdhan Utthan Bank, Nirdhan (NGO) has been continued working in credit-plus activities like entrepreneurship training, micro-health insurance, business development services, etc., mostly to NUBL clients. As on mid-June, 2014, the progress of the Nirdhan Utthan Bank is as follows:

Table 37. Activities of Nirdhan Utthan Bank

(Rs. million)

Number of Branches	141
Number of regional Offices	10
Number of active clients cumulative	203,415
Amount Disbursed cumulative	Rs. 28,393
Amount Repaid cumulative	Rs. 23,598
Loan Outstanding (Gross)	Rs. 4,794
Total Savings & Deposits	Rs.1,750
Total Staff	683

Source: NUBL

NUNUBL has operated its activities for small households focusing mainly in agriculture sector. The group members are using their loan on agricultural activities like cattle farming, agriculture inputs, irrigation activities, poultry, fisheries, etc. and selling of those products. Some are using the loan amount on small business activities as well. The bank is working as a national-level microfinance bank serving in the 63 districts of Nepal. The target groups of this banks are new clients who fit the following targeting criteria for its group based financial services: a) Own less than 0.25 hectares of irrigated land or less than 0.5 hectares of un-irrigated land per five-person family; b) House must not have cement walls or ceiling (pucca house); c) Permanent residence of area; d) Annual income is not more than Rs. 138,000/- per family; and e) No current loans from other financial service providers.

Success Story
Seti Tamang

Seti Tamang of Lamachaur, Pokhara was a housewife of daily wage laborer had difficulty to sustain her livelihood with her seasonal earnings. She decided to rear pigs for sustaining her family livelihood and in-turn joined in "Santi Tole Women Group" of NUBL so as to obtain loan for her proposed scheme. Initially, she got credit worth Rs. 20,000 from NUBL, Pokhara Branch. She further got Rs. 180,000 credit from this bank to make shed for pigs and began to rear additional pigs. As the number of sheds and the pigs increased, she succeeded to earn more and more income that facilitated her family to manage food, schooling for grand children and expenses for the treatment of her sick family members. Seti Tamang has deposited some money in the bank that she had earned from her venture. Now, she has 13 pigs in the sheds and feeling very happy with her own pig rearing enterprise.

6. Issues and Challenges

6.1 The demand for agricultural finance varies across Nepal. There is a lack of data and information on demand therefore it is difficult to predict the size of the demand. Hence, more research is desirable on different market segments, especially within value chains. This will directly contribute to the development of appropriate financial products related to agriculture.

As per an ADB study, such type of research is desirable to comprehend the demand for agricultural finance in Nepal. The study stratified demand in three broad categories; upper, middle and lower; reflecting landholding patterns, the nature of employment, and socio-economic structure. The upper segment was defined as commercial farmers, medium – to – large farmers, wholesalers and processors. The middle segment comprised of petty traders and small and tenanted farmers and lower segment comprised of landless poor's as well as the marginal, tenanted and subsistence farmers. The study estimated that the upper, middle and lower segments account for 15%, 50% and 35% of households respectively in Nepal overall. Further, the study suggested that the demand among upper and middle segments includes needs for working capital loans, cash credit, loans against pledged produce and medium to long term loans for crop cultivation and land development. Demand amongst the lower segment is primarily for short- to medium-term loans for consumption, micro-enterprise and crop cultivation.

ADB for example puts small holder farmers in one distinctive group, but a recent research on segmentation of small holder farmers and their needs for agricultural credit in low – income and middle – income countries[3] shows that smallholder farmers are not as uniform group as one might think. Rather, smallholder farmers can be sub-divided into three groups: non-commercial smallholder farmers, commercial smallholder farmers in loose value chains, and commercial smallholder farmers in tight value chains[4]. This reveals that the demand for agricultural credit is not straight–forward, and lack of understanding of the demand has been one of major impediments to expansion and growth of agricultural finance services. As shown earlier, financial service providers offer similar products, to a largely diverse group of users in Nepal.

MFDBs, SACCOs, FINGOs, and semi-formal financial institutions are the most important credit providers in rural areas and for low-income households, they too for the most part suffer from weak capacity, and limited outreach and scale of operations, especially in more remote areas[5], that adversely affects their viability and sustainability.

Most lack appropriate accounting, reporting, and MIS capacity. In the absence of regulatory requirements for accountability and transparency, microfinance institutions have not been able to improve their accounting and internal controls and boost their operating capacity. MFIs predominately follow the Grameen model, which has proven costly for rural areas of Nepal. Therefore, methodological innovations are needed to expand financial services in Nepal.

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[3] Consultative Group to Assist the Poorest (2013). Robert Peck Christen and Jamie Anderson. Segmentation of Smallholder Households: meeting the range of financial needs in agricultural families.

[4] The non – commercial smallholder farmers farm to contribute to their own survival, their outputs are relatively low and they are highly vulnerable to income and other shocks. The commercial smallholder farmers are still poor, but have access to some financial services and have some commercial orientation. These farmers generate some level of surplus to sell and usually sell in informal local or regional markets. And lastly, commercial smallholders in tight value chains, they tend to have a larger portion of their income from higher – value specialty crops and they tend to be a part of relatively more structured value chains, where they have access to information, buyers, inputs, secure markets and process.

[5] ADB, Assessment of Agricultural Finance, 2011

6.2 Majority of the poor population resides in rural and remote areas, which have limited physical infrastructure and economic opportunities for the rural farming households. The government should focus on rural development of basic infrastructures required for improving agriculture business and additional promotional investment activities in rural regions.

6.3 The high systematic, economic and social and co-variant risks are associated with agriculture sector combined with its seasonality, low profitability and 'specialized' nature often lead to small income for rural farming families. The low profitability of the sector makes it difficult to borrow on prevailing rates practiced by microfinance and even agriculture-based cooperatives functioning in rural areas.

6.4 The pace of agriculture mechanization has been relatively slow. Majority of Nepali farming families rely on traditional agricultural tools and technology. This slow paced modernization has also affected agriculture productivity.

6.5 In the absence of proper agriculture market, rural farming families are not able to sell their agricultural produce at competitive prices. Therefore, the middlemen benefit at the expenses of the poor farmers due to lack of proper procuring mechanism for agriculture produce.

6.6 Rural constraints in Nepal related to highly dispersed, heterogeneous population and poor infrastructure especially transportation, communication etc. make accessing financial services and developing rural networks costly, especially in isolated hills and mountain regions where density of population is low.

6.7 Over 30% of the economy is still non-monetized despite the increase in number and branches of BFIs and MFIs. Total bank deposits still account less than three-fifth of GDP, while total bank credit approximates two-third of GDP (IIDS, 2013, pp. 39-39).

6.8 Difficulty in expanding microfinance program in the hills and mountains of Nepal has been one of the major challenges in the country due to lack of local financial institutions and the unwillingness of majority of MFIs to expand their operation in those areas. Few existing cooperatives do not have adequate institutional capacity or sound governance to expand outreach considerably.

6.9 An overlapping of MFIs operating in densely populated accessible areas poses a threat to the maintenance of quality operation, resulting in unhealthy competition.

6.10 The ultra-poor, the marginalized ethnicities (dalit, janajati, madhesi, etc.) and destitute are still not cover up completely by the microfinance program. Thus, MFIs need to focus their services to such vulnerable groups as well.

6.11 Lack of market for the produces and very limited economic activities due to low density of population have posed problem for financial vs. microfinance institutions to expand their operations particularly in remote hills and mountains. Likewise, low level of use of suitable agricultural technology is another problem in promoting microfinance in geographically remote areas. Lack of alternatives to subsistence farming is also hindering for expanding microfinance services in these areas.

6.12 Increasing overdue loans of the MFIs requiring them to make sufficient fund provisions for bad and doubtful loans have caused high cost of operation and decrease in profitability. Poor targeting of client, inadequate training to staffs and weak supervision or monitoring and follow-up system of MFIs have led to increase in the defaults threatening the conviction that the poor are bankable.

6.13 Sustainability from microfinancing perspective includes three main aspects of institutions: operational, financial and institutional. There are large numbers of cooperatives and some MFIs in Nepal operationally viable but this may not last for long. Low quality of management, inefficient and ineffective leadership, inadequate capital base, undiversified products and high level of interest rates have become hindrance on sustainability of MFIs functioning in rural areas.

6.14 There are complaints from the part of MFI clients that microcredit services are time consuming, more procedural and bears paper works. This should be considered by major MFIs especially related to agriculture sector. Additionally, there is a kind of diversity on interest amount charged by the MFIs. Deprived farming families could not borrow the money with higher interest rates in rural areas; this should be rationalized by MFIs. The size of the credit and terms should match the need of proposed enterprises, which is to be reflected in the business plan.

6.15 Agriculture-centric microfinance institutions and agricultural cooperatives are primarily working in rural remote areas. To some extent, they have succeeded to provide seed money and agricultural inputs to the marginalized farming households at concessional rate. They are not better equipped with logistic facilities; personnel are unaware with the accounting, IT system and have found to be obtain less training and exposures. Orientation on the mentioned subjects should be provided by the respective institutions and cooperatives to their corresponding staffs.

6.16 Orientation and innovative products of microfinance such as; insurance, branchless/mobile banking, value-chain financing; etc., to the personnel involved with microfinance and cooperatives related agriculture should be provided by the means of training, workshops and seminars. This would broaden the horizon of executives and personnel affiliated to such institutions.

6.17 Capacity building (including establishment of proper accounting, financial and governance system, financial analysis systems, etc.) is also big challenge for the MFIs, NGOs, FINGOs, cooperatives and rural community based organizations. Without proper development of the institutional capacity, the sector would not become that much sustainable in the long run.

6.18 Activities of cooperatives functioning in urban areas have been posing risks in the Nepalese financial sector as their deposit mobilization has been at increasing trend. Lack of regulatory and supervisory activity for various types of microfinance institutions operating under different Acts is also an emerging and challenging issue. Timely enactment of Microfinance Authority Act, a provision of a II-Tier Institution; restructuring of Cooperative Department with the provision of effective monitoring and supervision cell designed for cooperatives functioning in the country could do better in this drive.

6.19 Deprived sector credit policy has assisted to fulfill the required sources of fund subsidiary company and variety of categories on lending including in deprived sector lending might create threat of low possibility of getting wholesale fund from bank and financial institutions.

6.20 Financial literacy program is still untouched to the rural farming families. This could be induced for farmers on the front of awareness building, information dissemination and so on. It is also revealed that rural farming families involved with microfinance institutions including cooperatives are not that much aware with the cash management and business plan to involve on various micro-enterprises. Threshold literacy initiatives could facilitate them to manage cash flow and involved with such business plan needed to run enterprises.

6.21 The experiences of Asia and South Asia reveal that the value chain system could work financing rural agriculture and its exposure in internal as well as international market. MFIs and donors involved with rural financing and agriculture development programs could establish linkage with the local agriculture producers, farming families, cooperatives; etc, to create a credit-plus culture for the development of rural areas and territories. Here, communication for development could contribute more for the rural farmers.

6.22 Women and disadvantaged minority ethnicities and rural farming families are still on the verge of poverty. The focused Government vs MFIs-led programs related to rural development and agriculture expansion targeting this segment of population is thus desirable. Involvement of youths in rural development and agriculture vs animal husbandry related micro-enterprises could reduce the existing culture of poverty and deprivation in one side and assurance of more employment opportunities with an additional income at grass roots on the other.

6.23 Financial infrastructure is not that much sufficient for the meaningful expansion of rural financial activities which could support agriculture sector and broaden the activities of MFIs and cooperatives working for rural farming families. The key elements of financial infrastructure such as credit information system, enforcement of collateral, functioning of payment system, transaction of remittances, insurance, etc. is vital to facilitate more financial access in rural areas on behalf of poor rural farming population.

6.24 Strengthening institutional capacity is one of the key issues for sustainability of microfinance vs. cooperative sector in Nepal. Strong institutional setup along with good governance is the prerequisite for financial services to the poor farming households and gradual expansion of outreach of MFIs in remote rural areas. Some issues to be addressed by the concerned institutions themselves are: improvement in management capacity, adopting sound governance practices and operation mechanism that focus on increasing efficiency, lowering transaction cost, improving client satisfaction, strengthening internal supervisory system and audit capacity, develop risk management framework; etc.

7. Findings and Recommendation

7.1 Major Findings of the Study

7.1.1 Some of the key Millennium Development Goals (MDGs) have been achieved despite the slow pace of development in rural areas. Level of poverty has came down to 23.8%, school enrolment of children has gone up to 80%, access to water and sanitation has reached to 82.2 and 62% of population respectively.

7.1.2 Targets were met partially in rural development aspect. Slow pace of reduction in poverty, expansion of education, some achievements on health sector and expansion of road and communication sector has broadly helped in some extent to minimize the gap between urban and rural sector.

7.1.3 Contribution of Agriculture sector's to Nepalese economy is large; with its contribution to GDP around one third and largest source of employment in rural areas.

7.1.4 Agriculture sector's growth is stagnant in 10 years period as it grew just by 2-3% average per annum as compare to 4.7% of non-agriculture sector.

7.1.5 Allocation of budget by the government in agriculture sector is comparatively low. In last one and half decade, only 4.3% of total budget has been found allocated to this sector. National budget for agriculture research still accounts less than 0.5%. However, in recent years, government has been increasing its additional resources to this sector.

7.1.6 Small and marginal land holders (*having less than 0.2 hectare of land)* account for 76% of country's population. This is a very big market segment for MFIs to expand their services.

7.1.7 Total deprived sector lending via BFIs is around Rs. 32 billion.

7.1.8 NRB has set refinance ceiling of 4% for BFIs especially for the promotion of productive sectors such as: agriculture, hydropower, animal husbandry, fishery enterprise, etc.

7.1.9 The current Plan has set the target growth of 4.5% on agriculture sector with 15% of budget allocating to this sector.

7.1.10 Credit from BFIs to agriculture sector has been seen in increasing trend over the years focusing animal farming and slaughtering, cereals cultivation, vegetable farming and cash crops.

7.1.11 Nepal's formal and semi-formal financial sector has grown rapidly over the past two decades.

7.1.12 The largest provider of agricultural loans are the semi – formal and informal organizations like cooperatives and non-governmental organizations while registered financial institutions have very limited outreach in this sector.

7.1.13 Compared to other Asian countries like Bangladesh, Vietnam, Cambodia, Philippines and India; Nepal has relatively lower active borrowers of MFIs.

7.1.14 Almost two million rural households have access to microfinance services in Nepal. Financially excluded households are higher in the hills and mountain regions.

7.1.15 There is lack of disaggregated data with regards to micro leading in Agriculture sector.

7.1.16 A category commercial banks and B and C category financial institutions provide both wholesale and retail lending to meet the deprive sector lending provision of NRB. The retail lending performed by this financial institution do not necessarily provide micro lending only. While reporting the lending transaction, financial institutions do not disaggregate micro lending provided to agriculture sector.

7.1.17 The total loan portfolio of BFIs was up to 15% of the total credit portfolio in 1982 and due to the various reasons this percentages has deteriorated and has come down to 4% as of 2012. This shows that the interested of BFIs in leading to agriculture sector has become less interesting. Another important fact to consider is that Agriculture Development Bank Ltd. which wholesome objective was leading to agriculture sector has gradually moved away from agriculture lending and started competing with A category commercial banks in the market reducing its total agriculture loan portfolio from 82% in 1982 to 24% in 2012.

7.1.18 Majority of the MFI are found to be urban centric due to their target of profit maximization in short span of time leaving an immense opportunity for microfinance in rural areas. The overcrowding of MFI in urban areas has let to multiple borrowing tendency of client. This has led to higher risk for both borrowers and providers.

7.1.19 The total loan portfolio of D category financial institutions entirely falls under deprived sector and micro lending. These institutions are supposed to provide disaggregated information including micro lending to agriculture sector. However, some of these institutions do not provide information accordingly due to lack of capacity and lack of fully functioning MIS system.

7.1.20 FINGOs are also providing micro loans to agriculture sector. However, these institutions do not have a mechanism to disaggregated information with regards to their micro lending loan portfolio to agriculture sector.

7.1.21 Around 30 thousand cooperatives are functioning in Nepal, covering some 30% of financial transactions and contributing almost 3% of national GDP. Nearly 50% of them are saving and credit cooperatives. Nearly 14% of them are agriculture cooperatives.

7.1.22 While studying the status of sampled MFIs and Cooperatives, it is revealed that more than two-third of their financing goes to rural families concentrating agriculture sector like livestock, vegetable farming, bee keeping, dairying, cash crops, poultry, tea farming, small shops, etc.

7.1.23 Most of Savings and Credit Cooperatives in Nepal are active in micro-lending to agriculture sector. However, majority of these cooperatives do not fall under the supervision of NRB. These cooperatives also do not have disaggregated data with regards to their micro lending loan portfolio in the agriculture sector.

7.1.24 Policies with regards to financial inclusion are progressive in Nepal. However, there is a room for improving policy gaps including agriculture sector lending. National Microfinance Policy 2007 commits on the formulation of necessary law and rules related to rural finance. Nevertheless, there is still a need to establish policy and legal provision with regards to monitoring and supervising of savings and credit cooperatives in Nepal which are in large number.

7.1.25 The major innovative tools for the success and intensification of microfinance activities in Nepal are agriculture insurance, value chain financing, mobile and branchless banking, remittance, etc. which are in the introductory phase.

7.1.26 Nepali farming families and even MFIs are unaware of innovative tools like mobile money, branchless banking, value chain finance, etc.

7.1.27 Inward remittance in Nepal currently holds some one-forth share of GDP. But, the country has not succeeded to utilize the influx of the inward remittance in productive activities. This dependency has a high risk once there is a problem in with regards to observation capacity in the migrant countries.

7.1.28 Inward remittance and tourism sectors have largely supported the economy with surplus BOP position and remittance holding some 23% stake of the GDP.

7.1.29 DCGC provides insurance services for the deposit up to Rs. 200,000 per depositor and small scale lending made by all banks and financial institutions regarding agriculture, cottage industry, small and medium sized enterprises, etc.

7.1.30 Agriculture insurance schemes in Nepal are run by government agencies, NGOs, cooperative, etc. which is of very small scale and have limited coverage.

7.1.31 Some 0.5% Nepali adults use electronic payment system.

7.1.32 NRB has issued unified directives to BFIs related to e-banking which covers banking, mobile banking, internet banking, e-card, etc.

7.2 Recommendation and Way Forward

7.2.1 More investment from the part of government in rural infrastructure such as: transportation, communication, development of market hubs, etc. is desirable. Financial as well as market literacy is desirable for farming families of rural areas. Returnee migrant youths of rural areas from abroad could be motivated on various agro-based, and forest-based enterprises.

7.2.2 *Empowering consumers* with skills and knowledge to use financial services in responsible manner, to better manage money, take advantage of opportunities, and plan for the future. This will include supporting the development and dissemination of core elements of the proposed National Financial Literacy Strategy that will serve as a public good; brokering partnerships to enable wide adoption of financial literacy among schools, BFIs, MFIs, Cooperatives, etc.

7.2.3 *Enhancing the capability of financial service providers* to offer a stronger product value-proposition to poor clients and to deliver services efficiently and sustainably. This will include supporting market research as a public good to help financial institutions to assess demand for financial services including with regards to agriculture finance among specific client groups and locations across Nepal to encourage private investments for extension of services especially in agriculture financing; supporting market research and product development tailored to institutions especially MFIs and cooperatives; supporting tailored solutions to FIs including MFIs and cooperatives to lead to agriculture sector. Additionally, capacities of DCGC need to be enhanced so that livestock and crop insurance could be better promoted in Nepali market.

7.2.4 *Catalyzing investments* in and by financial institutions to permanently expand their distribution network to unserved markets including rural agriculture areas. This will include: establishing a special purpose vehicle to manage delivery of matching risk-capital grants to financial institutions seeking to permanently extend their existing distribution network or to test innovative low-cost distribution platforms to reach new markets; through new technologies like smart-cards, ATMs, mobile phones, internet, etc. that could be efficiently applied to promote financing. Another area that needs special attention is value chain financing in agriculture sector so that efficient mechanism such as where house receipt system, leasing, factoring etc. could be promoted in the agriculture sector that could possibly befitting small holders.

7.2.5 *Facilitating greater coherence and alignment of policies* to enable expansion of the frontiers of financial markets. This includes promoting strategies and interventions such as undertaking an in-depth diagnostic of the key determinants and drivers of financial inclusion. This will leads to a national financial inclusion roadmap to enable the Government of Nepal to prioritize and coordinate internally, provide private sector and donors with an agenda to support the development of the financial sector targeting at agriculture financing that could benefit small holders including MSMEs in the agriculture sector directly and through other sector interventions. Such interventions can reduce the costs of financial institutions to extend services, and give the private sector insights into key investment opportunities and supporting discrete set of policy research and advocacy. This also includes revisiting the gaps and shortcoming of existing financial policy and regulation including agriculture finance.

Finally, in order to effectively implement the above-mentioned recommendations, a disaggregated research base mechanism and a regular system needs to be established. This will ultimately provide necessary information for planning, implementation, monitoring and evaluation for policy makers including market players. A separate and detailed research need to be conducted to know the exact status of condition, updates, strategies and challenges of microfinance in agriculture sector.

Part 5

Pakistan Microfinance in Agriculture

Khadija Ali

1. Introduction

This chapter provides a brief background on the agriculture sector in Pakistan, outlining the current role of agriculture in the economy and growth prospects going forward. It will also highlight the various credit mechanisms that prevail in the agriculture sector – including both formal systems (commercial banks) and informal credit lines ('arthis' or commission agents).

1.1 Pakistan's Agriculture Context

Pakistan's economy is heavily dependent on the agriculture sector, which contributes 21% to the country's GDP and employs 45% of the country's labour force. Nearly 60-70% of Pakistani people live in rural areas, and the agricultural sector has a significant influence over their livelihood. Overall economic growth is directly related to the performance of the rural economy; it is recognized for its "vital role in ensuring food security, generating overall economic growth, reducing poverty and transforming towards industrialization".

Figure 14. Contribution of Agriculture to GDP

Farming is Pakistan's largest economic activity; with Punjab and Sindh being the two most productive provinces in this regard. Although there is agricultural activity in almost all areas of Pakistan, the five major cash crops – wheat, cotton, rice, sugarcane and maize – are primarily grown on the Indus River plains in Punjab and Sindh. The livestock/dairy sector is another highly productive sub-sector within the agriculture economy. While persistent hikes in the prices of essential commodities like onions, potatoes, chillies and tomatoes has meant that these crops have also gained in economic importance in recent years.

The agriculture sector experienced considerable development and expansion of output since the early 1960s. However, the country is still far from realizing the large potential yield that the well-irrigated and fertile soil from the Indus irrigation system could produce. Since Independence, the amount of cultivated land has increased by more than one-third. This expansion is largely the result of improvements in the irrigation system that has made water available to additional plots. The scant rainfall over most of the country makes about 80% of cropping dependent on irrigation. Fewer than 4 million hectares of land, largely in the northern areas of the country, are totally dependent on rainfall. Non irrigated farming generally gives low yields, and although the technology exists to boost production substantially, it is expensive to use and not always readily available.

The agriculture sector will continue to be the most important sector as the main source of output in the short-to-medium term. From a long-term perspective, however, it is not certain if Pakistan is prepared for various issues such as looming climate change which might have a significant negative influence on the production of crops and the livelihood of rural areas. The sector was heavily affected by a spate of devastating floods in Punjab and Sindh in 2010 and 2011, which has since raised alarms about the need for risk mitigation in farming activities.

While agriculture already accounts for a significant portion of the country's GDP and workforce, the sector's indirect contribution to overall productivity is likely much higher. Agriculture directly accounted for more than 16% of total exports in 2012, with exports of downstream industries such as textiles (cotton yarn, cotton cloth, raw cotton) accounting for another 40% or more. Moreover, the sector also acts as a large market for industrial products such as fertilizers, pesticides, tractors and agricultural implements. The agricultural sector's strong linkages with the rest of the economy are not fully captured in the country's statistics – though there is a growing understanding of its significance going forward.

1.2 Credit for Agriculture

The agriculture sector remains highly fragmented on the distribution side, with a majority of the distribution channels and markets being dependent on access to credit for key activities. According to the State Bank of Pakistan, the rural credit market can be broadly segmented into the following:

- Agriculture commodity primary processors such as ginners, rice shellers, flourmills. These are large scale processors who are substantially financed by Commercial Banks.
- Agriculture service providers such as 'arthis', agriculture input dealers and shopkeepers who are being very sparsely serviced by institutional finance and depend primarily on their own cash capital.
- The non-poor and better-off farmers which are being serviced by existing institutions like ZTBL (Zarai Taraqiati Bank Limited; previously called the Agriculture Development Bank of Pakistan), Commercial Banks (CB's) and Co-operative Banks.
- The poor landless or small landholding farmers, who do not possess the necessary collateral to access institutional credit, are dependent on microfinance providers (MFPs) providing collateral free microfinance or the informal sector lending at exploitative interest rates.

For several players in the agricultural market space, particularly smallholder farmers, productivity is highly dependent on the resources available to them at the time of the sowing of a particular crop. Access to sufficient funds at affordable rates would allow for these players to increase their efficiency and profitability substantially.

Financing for most of the activities along the lower end of agriculture value chains comes from informal lenders. In Punjab and Sindh, the *arthi* remains the largest source of informal credit for agriculture-dependent small farmers, as the market is deemed too risky and expensive to serve by banks and other formal financial institutions.

There is a strong case of channeling more of the commercial banking sector's financing into the rural economy given that they make up over 80% of Pakistan's financial sector. Currently, commercial banks are not set up to lend to the average farmer: their documentation requirements and processes, collateral and security criteria and loan appraisals and monitoring system are not geared to serve this segment at affordable lending rates. Similarly, the average farmer is reluctant to deal with a bank since neither the product nor the service is tailored to meet his needs. In the absence of a relationship between the farmers and the banks, credit needs of the agriculture economy are being met though the informal sector.

Box 1. Informal Lending for Agriculture in Pakistan*

The informal credit market is active and vibrant in Pakistan and serves the needs of these farmers. The financiers in this market are referred to as the "arthis", or commission agents. Deeply embedded in the agricultural supply chain and spread across Pakistan, this network of arthis ranges from small local village level operators to rich, large wholesalers. They perform key functions in the agriculture production and marketing cycle.

In Punjab, the arthi remains the largest source of informal credit for agriculture-dependent small farmers, generating substantial profits in a market deemed too risky by commercial banks. Operating mainly out of the province's 325 commodity markets, the arthi provides two important services to the farmer:

1. Inputs on credit at the time of sowing of a crop.
2. Facilitate the sale of the harvested crop in the market, as sales agent for the farmer.

Essentially, by taking advance from the arthi, the farmer becomes bound to sell his produce through the same arthi - thereby giving the arthi control of the farmer's cash flows. The rates charged by the arthi and his portfolio's risk profile demonstrate that there is money to be made in agriculture lending to small and medium farmers. With minimal operational costs (less than 2.5% of total volume of lending), nominal write-offs and high interest rates (ranging between 62 and 80%), profit margins for the arthi are quite significant. In addition to earning from credit, the arthi also earns commission from the sale of the produce of his borrower (ranging from 2 to 4% depending upon the crop and his terms with the client).

In terms of the potential lessons to be learnt for banks and formal financial institutions, it is worthwhile to note that the arthi provides customized services by identifying the right borrower and ascertaining his credit needs accurately. In times of crop failure (due to natural disasters, for example), the arthi provides flexibility vis-à-vis rescheduling the loan, delaying recovery and also extending a new loan to allow the farmer to plan his next crop cycle. On the other hand, bank processes tend to push for scheduled recoveries and classification of default loans as soon as repayments falter. The arthi makes unsecured loans based on traditional relationships with farmers, often passed on from generations; while banks typically rely on physical collateral (such as land titles) and guarantees from third parties. These different modes of operation highlight the potential for banks and formal financial institutions to better understand the needs of the farmers and provide appropriate and cost-effective services.

Demand for credit remains continuous and is growing with rising prices of agriculture inputs, which means there is potential for the formal sector to tap into this market. Perhaps this can be achieved through 'intermediaries' who would play the role of the arthi, to connect the bank to its clients and provide value-added services (such as access to modern farming equipment, techniques and inputs) that would increase productivity while reducing credit risk for the banks. The provision of insurance would need to be incorporated into the model to cover for any catastrophic risks to crops.

*Source: "Who is the Arthi? Understanding the Commission Agents Role in the Agriculture Supply Chain" Pakistan Microfinance Network (PMN) and National Institute of Banking and Finance (NIBAF) through funding from the International Growth Centre – Pakistan; August 2013. http://www.pmn.org.pk/assets/articles/5486c831c0a5177122cdff4efbff04ae.pdf

In terms of formal credit for agriculture, like many developing countries, policy makers in Pakistan mainly relied on directed and subsidized lending through state owned financial institutions or specialized banks to channel finances to this sector up till the 1990s. Given the enormous task of poverty alleviation and equity concerns, the government has always taken measures to ensure that resources are directed to specific geographical areas, target groups and sector of the economy. The principal means of ensuring this has been through setting up mandatory targets for the agriculture sector. In the 1970s, an Agricultural Loan Scheme was introduction and commercial banks were issued mandatory agriculture credit targets. However, analysis of the figures showed that agricultural credit disbursed under such schemes was being diverted to non-agricultural purposes and the position of recovery of these loans was not satisfactory. In addition to this, outreach of commercial banks reflected poorly on their rural outreach and indicated that commercial banks were focusing on a very narrow base of farmers, presumably more influential and better off among the farming community.

"The natural result of subsidized lending was that commercial banks were precluded from developing rural/agricultural credit market as a financially viable activity when the interest rate subsidy made it attractive for large influential farmers to borrow" (PMN, 2009).

The challenges of directed credit led to policy makers doing away with such schemes in the late 1990s and early 2000s and instead establish a market oriented approach. A significant move was the setting up of a supportive policy framework for facilitation and entry of private sector financial institutions into un-banked areas. In 2000, the government set up a microfinance policy framework through the Microfinance Ordinance 2001. This Ordinance has been important for encouraging private sector and non-government sector players with a social welfare objective to reach out to the un-banked, particularly in agriculture and other rural-based sectors.

Additionally, the State Bank of Pakistan has done away mandatory targets and instead only provides indicative targets for agriculture lending, which are determined in consultation with the financial service providers. The agriculture credit disbursement target for 2014-15 has been set at an ambitious PKR 500 billion in order to facilitate growth in agriculture production.

Table 38. SBP Indicative Targets for Agricultural Credit

	2012-13		2013-14		2014-2015
	Target	**Disbursement**	**Target**	**Disbursement**	**Target**
Total (in PKR Billions)	315	336.2	380	391.4	500

Source: SBP

According to the State Bank of Pakistan, total agriculture credit outreach is to just over 2.15 million borrowers as against 8.3 million farm households in the country. This indicates ample room for enhancement of agriculture portfolio by the banks. Further, according to estimates, only 35 to 40% credit requirement of agricultural sector is being met by the formal banking system while the remaining is fulfilled through non-institutional credit sources.

There remains huge potential for stakeholders along agriculture value chains to facilitate farmers towards more comprehensive full-scale services, and perhaps away from informal credit lines. The next chapter explores the formal financial sector, in particular microfinance sector, and how it is poised to serve the small holder farmers.

2. Agriculture Microfinance

This chapter maps the current microfinance landscape in Pakistan, and outlines the potential role that microfinance can play in addressing the credit needs of stakeholders in the agriculture sector. The chapter also covers the regulatory framework for provision of microfinance services in Pakistan and highlights the progressive policies and regulations which have led to growth in microfinance provision.

2.1 Pakistan's Microfinance Sector

Microfinance was pioneered in Pakistan in the 1960s through Comilla Pilot Project in former East Pakistan (present-day Bangladesh). This was followed by the launch of the Orangi Pilot Project's Orangi Charitable Trust (OCT) in Karachi and the Agha Khan Rural Support Program (AKRSP) in the Northern Areas of Pakistan.

The late 1990s was a watershed period for the sector as it received major impetus due to recognition of the important role of microfinance in the growing economy. Several microfinance initiatives were launched such as establishment of Kashf Foundation (KF), Urban Poverty Alleviation Program (UPAP) by National Rural Support Program (NRSP) and the launch of the then state-owned microfinance bank (MFB), Khushhali Bank Ltd. (KBL), with assistance of the Asian Development Bank (ADB).

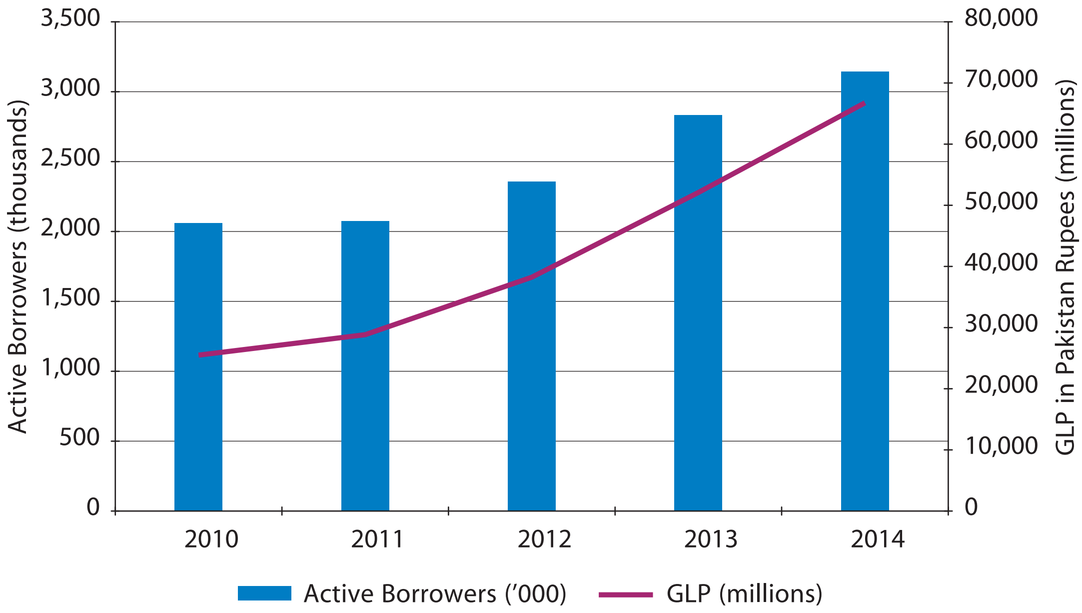
Promulgation of the Microfinance Ordinance 2001 strengthened the microfinance ecosystem by providing a framework for creating privately owned specialized Microfinance Banks (MFBs) under the supervision of the State Bank of Pakistan (SBP). Microfinance received a further boost with the establishment of Pakistan Poverty Alleviation Fund (PPAF) in 1999 as an apex funding body for the sector and the creation of the Pakistan Microfinance Network (PMN) as a voluntary association for the industry (see *annex one* for profile of PMN).

There is diversity within the 45+ microfinance providers (MFPs) in terms of scope and size, with the seven largest institutions holding 80% of total borrowers (see *annex two* for a snapshot of microfinance performance over the last four years). The sector comprises of very large institutions with national outreach, as well as small community-level institutions. For analysis purposes, MFPs are often divided into four peer groups:

- Microfinance banks (MFBs): these are licensed and prudentially regulated under the State Bank of Pakistan. There are currently nine such regulated MFBs operating in Pakistan.
- Microfinance institutions (MFIs): these are institutions providing specialized microfinance services.
- Rural Support Programmes (RSPs): RSPs run microfinance operations as part of multi-dimensional rural development programmes. There are roughly six regional RSPs across the country, with the nation-wide National Rural Support Program (NRSP) being the largest.
- Other microfinance providers (Other MFPs): these organizations, such as non-government organisations (NGOs) run microfinance operations as part of multi-dimensional services.

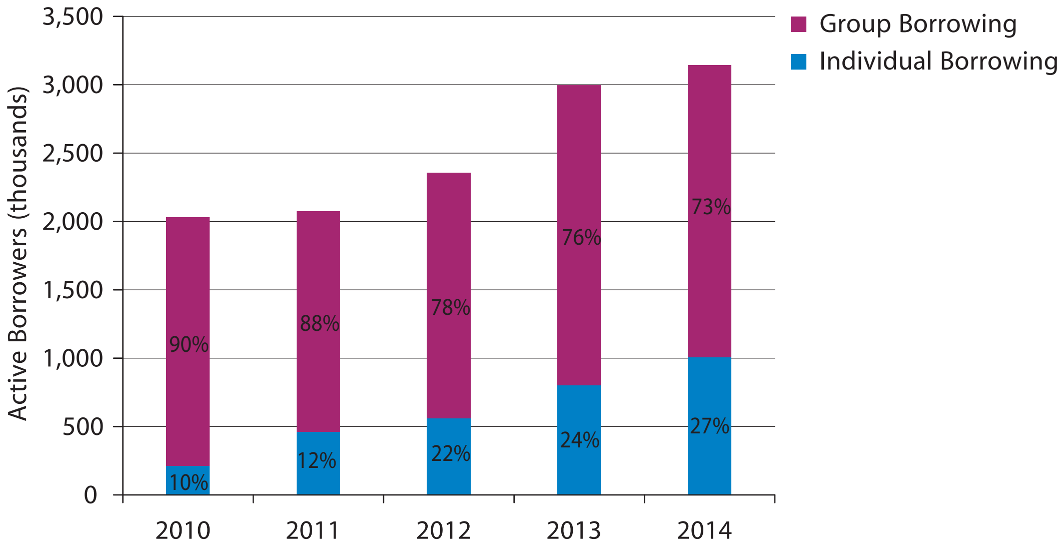
Advancements in the past two decades have further paved the way for a new set of players to enter the industry, including mobile network operators (MNOs) and commercial banks as majority stakeholders in microfinance banks, as well as international microfinance organizations. There is continued investor interest in the industry by both local and international players.

Figure 15. Growth in Number of Active Borrowers and GLP



Today the sector reaches over 3.1 million active borrowers with a total gross loan portfolio (GLP) of PKR 66.7 billion. Deposits of the microfinance banks now stand at PKR 43.4 billion.[1] Outreach in terms of active borrowers has been growing steadily through the increase of the number of microfinance providers (MFPs) working in the country, as well as the maturity of existing MFPs. Figure 15 shows the growth in number of active borrowers and GLP over time.

Figure 16. Lending Methodology



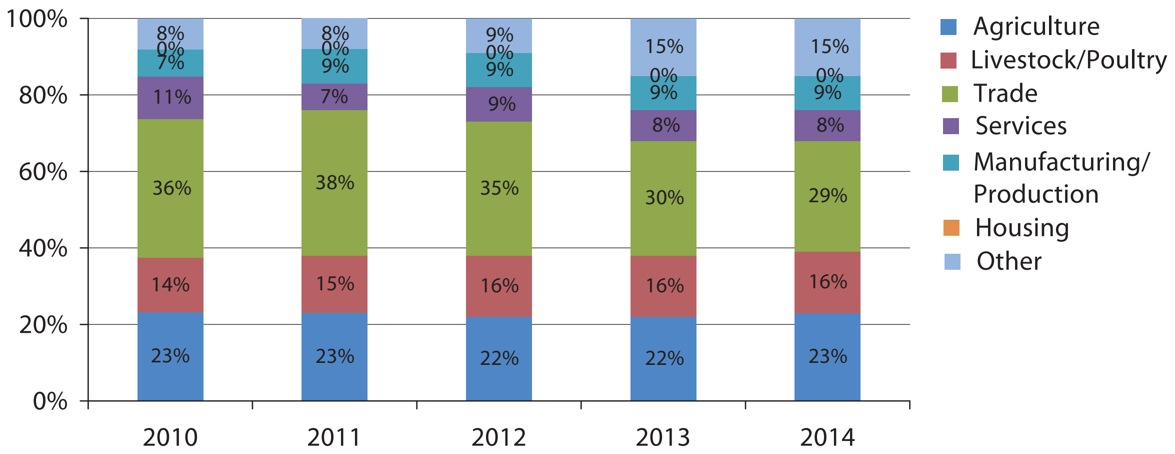
The average loan size for a microfinance loan is currently PKR 30,604 (approximately USD 300), though this average is considerably higher for the larger MFPs, particularly the microfinance banks. Moreover, the sector's average loan size has been steadily increasing over time, indicating a growing market for higher size loans across the board.

[1] Source: MicroWATCH: A Quarterly Update on Microfinance Outreach in Pakistan, Issue 34: Quarter 4 (Oct-Dec. 2014).

A majority of 68% of microfinance loans are disbursed in the form of group loans – which involve social collateral and group guarantees to ensure responsible and timely repayments.[2] The group lending methodology is mostly prevalent in the context of rural communities, where individuals are often from the same village/community and take part in the same income generating activities. Having said that, the sector is gradually moving beyond the traditional group-based methodology to include higher sized loans for individual clients (up to PKR 500,000 or USD 4,860). Figure 16 shows the share of individual and group loans in client portfolio over time.

Out of the total outreach of active borrowers in the microfinance sector, 57% are based in rural Pakistan. A breakdown of the sector-wise outreach of microfinance indicates that up to 39% of borrowers belong to the agriculture and livestock sector; while the remaining portfolio consists of borrowers in the trade, services and manufacturing sectors. Figure 17 shows the breakdown of microfinance outreach across various sectors. Agriculture and livestock remain the most prominent, and the shift to more collateral-based, individual lending models will perhaps create further opportunities along the agriculture value chain.

Figure 17. Lending by sector



Box 2. Microfinance Initiatives in Branchless Banking*

Branchless banking (BB) has seen substantial growth in Pakistan, with the country being one of the first globally to issue guidelines pertaining to regulations for branchless banking in 2008. This proved to be an important catalyst for exponential growth in the digital financial inclusion space. Several leading mobile network operators and commercial banks have entered into this sector on the premise of expanding outreach to the currently unbanked segments of the population through branchless banking initiatives. This resulted in CGAP labeling Pakistan as a "laboratory for innovation" in branchless banking in one of its studies.[3]

Currently, eight branchless banking providers are operating the market, with several (MF) Banks partnering to provide BB solutions to their clients. Partnerships between mobile banking operators and microfinance providers allow for loan disbursement and repayment collection to be carried out in a more timely and cost efficient manner. Going forward, more focus of branchless banking players on value added services will be integral for MF client engagement.

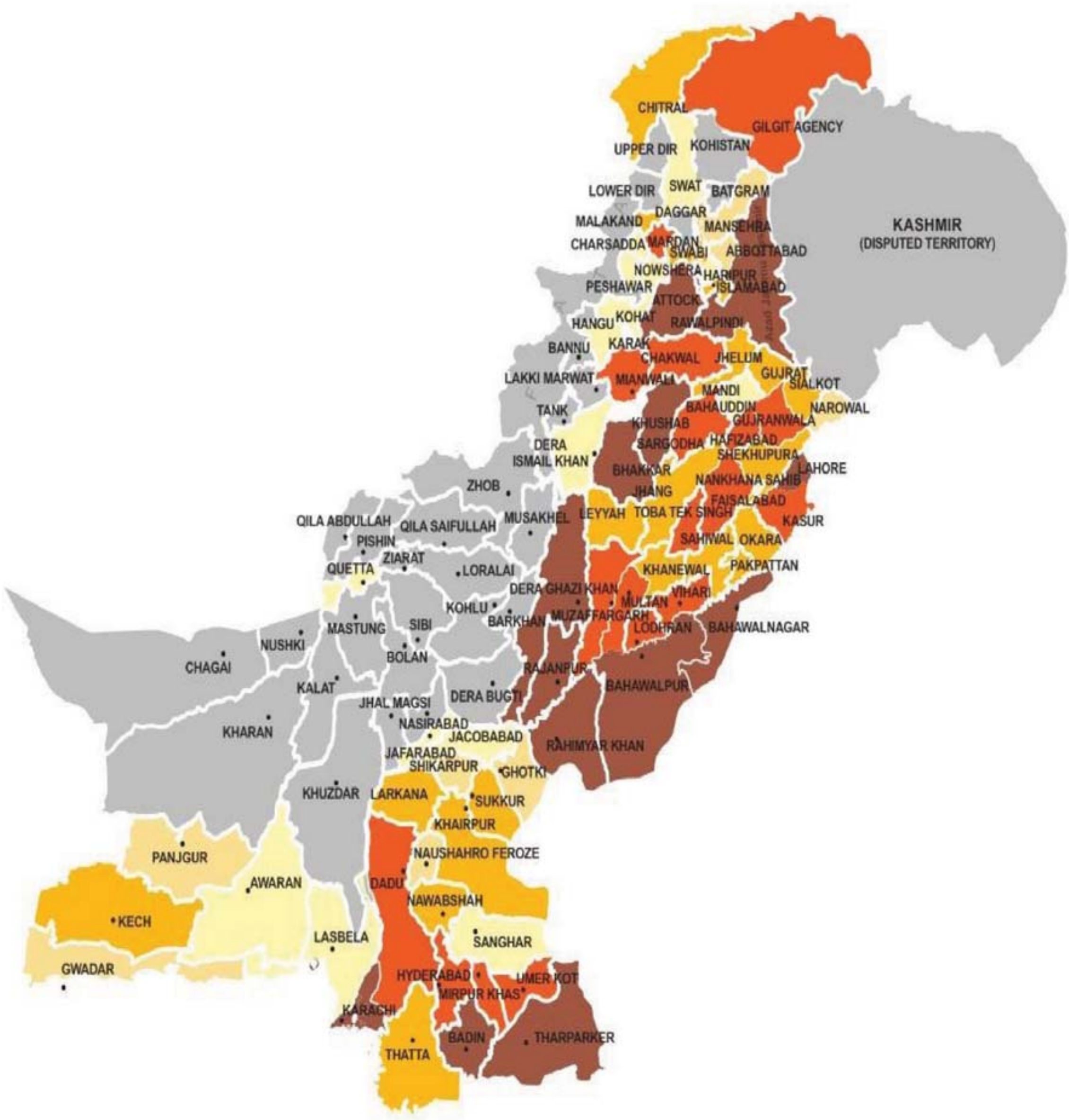
[2] Source: MicroWATCH: A Quarterly Update on Microfinance Outreach in Pakistan, Issue 34: Quarter 4 (Oct-Dec, 2014).
[3] Branchless Banking in Pakistan: A Laboratory for Innovation, Consultative Group to Assist the Poor (CGAP), 2011. http://www.cgap.org/sites/default/files/CGAP-Brief-Branchless-Banking-in-Pakistan-A-Laboratory-for-Innovation-Oct-2011.pdf

The number of branchless banking transactions has reached 71.1 million valuing PKR 326.1 billion as of June 2014. Holders of mobile-wallets or m-wallets (payment services performed on or via a mobile device) carried out 10.3 million transactions valuing PKR 25.8 billion. However, most of these were for bulk payments (pensions, salary payments, government-2-person cash transfer programs) and utility bill payments. The usage of m-wallets among microfinance clients is still an area that needs to be further explored and promoted by relevant players. In order for BB to reach scale, the services offered need to go beyond payments and transfers, and expand into savings, insurance and loan disbursement solutions.

* **Source:** Branchless Banking Newsletter, Issue 12 (Apr-Jun 2014), State Bank of Pakistan. http://www.sbp.org.pk/publications/acd/BranchlessBanking-Apr-Jun-2014.pdf

Existing outreach of microfinance providers tends to focus on the two most agriculturally active provinces of the country, that is, Punjab and Sindh. Figure 18 shows the geographical distribution of microfinance, which is concentrated on the western side of the Indus River along the agriculturally rich Punjab and Sindh provinces.

Figure 18. Distribution of active borrowers across Pakistan



Estimates suggest that the potential microfinance market in Pakistan is about 27 million clients, while current penetration rate of MFPs is only around 11% of the market.[4] This indicates a huge potential market for MFPs working on the financial inclusion agenda in Pakistan, not only for enhancing microcredit outreach, but also micro-savings, micro-insurance and other non-financial benefits for a wider range of peer groups – including agriculture stakeholders.

2.2 Lending for Agriculture

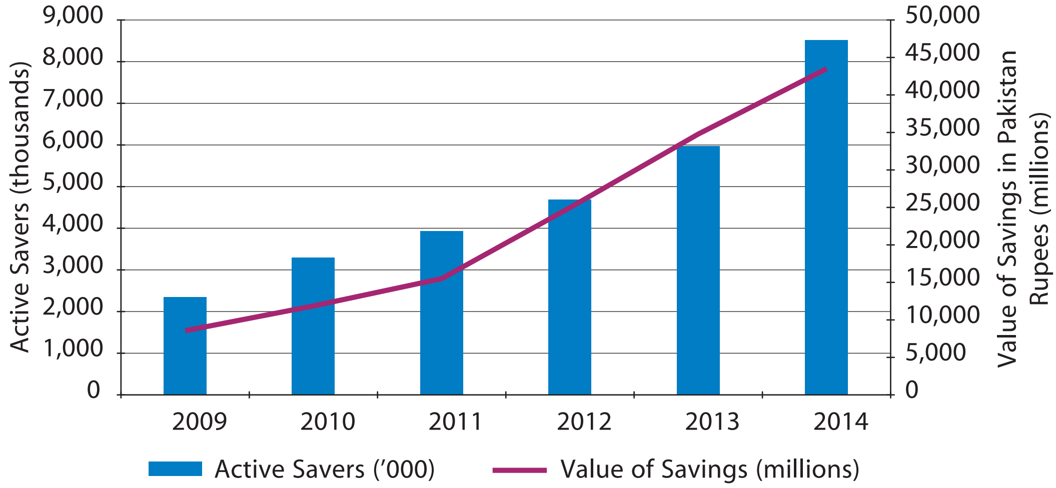
In terms of access to finance for smallholder farmers, many MFPs recognize the vast scope in this regard and have accordingly devised micro-credit products for agriculture and livestock. Rural financing for poor households generally operates on a community-based service delivery mechanism in which client groups are formed. This reduces transaction costs for MFPs reaching out to remote rural locations, as well as acting as a form of social collateral. Rural financing for poor farmers tends to be for the following activities:

- Purchase of agricultural inputs: seed, fertilizer, pesticides
- Irrigation: tube well water or installation of tubewells or turbines
- Payment of land levelling, land preparation for cultivation
- Rental of agricultural equipment, transportation and others
- Livestock or poultry: purchase of livestock, building of sheds, purchase of inputs for livestock

Loan tenures range from 3 to 12 months and repayment is either in the form of a lump sum amount at the end of the crop cycle (at the time of crop harvest) or monthly/quarterly/bi-annual repayments depending on the nature of the farmers' work. Loan amounts tend to vary across the different microfinance providers and the capacity of the farmer, though this usually ranges between PKR 10,000 to 50,000 for smallholder farmers.

Some MFPs have tried to proactively supplement microcredit products by mobilizing deposits and providing various savings options (savings accounts, term deposits, savings certificates) at favorable rates. Only microfinance banks (MFBs), being regulated under the SBP, are allowed to take deposits, though several non-regulated MFIs/RSPs have also partnered with licensed commercial banks and MFBs to provide similar services to their clients. The sector currently reaches 7.3 million active savers, with the value of savings standing at PKR 37.8 billion. Figure 19 shows the growth in deposits and number of depositors in microfinance over the past few years.

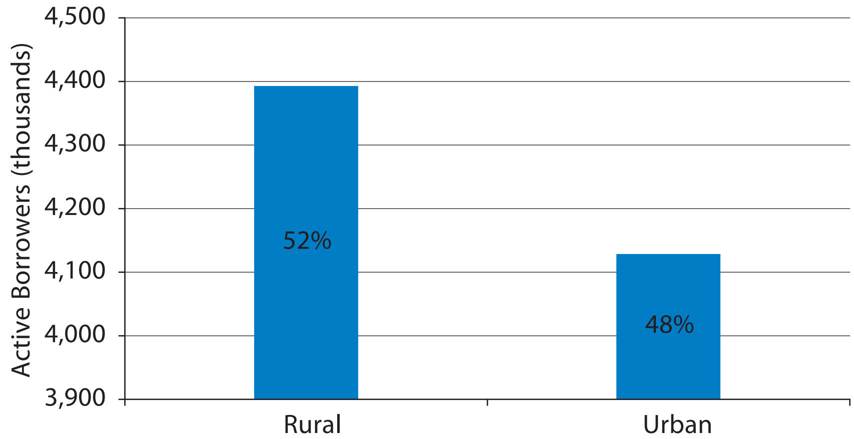
Figure 19. Growth in Deposits and Number of Depositors



4 ibid

While growth has been substantial, outreach of savings to rural areas has been a challenge in the country. The transaction costs remain relatively high for clients in remote areas wishing to use banks for deposits. Moreover, awareness needs to be raised on the benefits of formal saving mechanisms over traditional forms of savings (saving at home, in the form of gold or livestock, informal savings committees) – which tend to be preferred by rural families.

Figure 20. Active Savers by Rural/Urban



The breakdown of savers across rural/urban regions of the country indicates that most deposits are actually coming through long-run "partnerships" of the Rural Support Program (RSPs) with local community organizations (COs) and only a few microfinance providers are dominating the space. While the industry understands the significance of generating deposits from low income segments, the reality remains that not many microfinance banks have been able to successfully target small savers – which is where their comparative advantage lies as deposit taking entities. Without successfully mobilizing small deposits, particularly rural deposits, MFBs will not be able to sustain themselves in the long run. Even as of now, it is estimated that deposits only fund 40% of total assets of MFBs, which indicates that more comprehensive deposit mobilization strategies need to be put in place, with specific targets to rural regions, for the industry to grow in this regard.[5]

2.3 Policy and Regulatory Environment

The presence of a strong regulatory and policy framework has played a crucial role in the growth of the microfinance sector. The country's regulatory and business environment has been consistently ranked among the top three globally for the past four years by the Economic Intelligence Unit (EIU) of the Economic magazine.[6] In addition, issuance of draft rules on micro-insurance by the SECP last year is likely to spur growth in this segment also.

The 2001 Microfinance Ordinance provides the framework within which privately owned microfinance banks (MFBs) have been established in the country and are regulated by the central bank of the country i.e. State Bank of Pakistan (SBP). Since its promulgation, ten microfinance banks have been established, including three that emerged out of transformed NGOs (The First Microfinance Bank in 2001, Kashf Microfinance Bank in 2008 and NRSP Microfinance Bank in 2011).

[5] Pakistan Microfinance Network (PMN), Research Paper 03: 'Significance of Small Deposits for Microfinance Providers', June 2010

[6] The Economist Intelligence Unit (EIU) of the Economist magazine has rated Pakistan in the top three consistently now for four years. 'Global Microscope on the Microfinance Business Environment 2013', The Economist Intelligence Unit Limited, 2013. http://www.citigroup.com/citi/citizen/community/data/EIU_Microfinance_2013_Proof_08.pdf

The SBP has also been playing a key role in providing strategic direction to the sector and proactively making policy adjustments, in consultation with sector players, to provide an enabling environment for MF over the years. An important amendment was made in the regulations in 2012 in which SBP revised loan limits for MFBs from PKR 150,000 (USD 1,457) to PKR 500,000 (USD 4,857) in order to promote enterprise lending.[7] It has allowed MFBs to initiate micro enterprise lending and extended an enterprise lending guarantee facility to MFBs willing to move up-market, under which 40% of the MFB's first loss catering to this market segment is covered for by the State Bank (PMR, 2013). This facility could also prove useful to target players at the medium-to-higher end of the agriculture value chain.

Box 3. Strengthening industry infrastructure through Microfinance Credit Information Bureau (MF-CIB) and Client Protection

Industry infrastructure has been strengthened by the establishment of the Microfinance Credit Information Bureau (MF-CIB) which covers not just the regulated MFBs but all types of practitioners in the industry. PMN, with support of SBP, PPAF, UKAid and the International Finance Corporation (IFC), launched the nation-wide rollout of the MF-CIB in June 2012. The on-going national roll-out of the MF-CIB is likely to restrict the prevalence of over indebtedness or multiple borrowing, particularly in regions with a strong presence of MFPs – most noticeably in Punjab and Sindh.

Credit Bureaus play a vital role in mitigating the challenges faced by microfinance ranging from information asymmetry, adverse selection, and moral hazard to over-indebtedness due to multiple borrowing. The credit information provided by the bureau helps financial institutions reduce risks, loan process time, costs and default rates. For borrowers, it leads to lower interest rates, making loans more affordable and more widely available.

Also, consumer protection standards have been ensured through various initiatives in the sector. The Consumer Protection Department at the SBP ensures that aspects of client protection are incorporated in legislation and efforts are being made to refine these further to make them more holistic. The industry has also made its own efforts towards entrenching responsible consumer protection practices through common platforms – such as self-regulation and adoption of a voluntary industry code around client protection.

In addition to providing microfinance regulations, the SBP's Agriculture Credit Department was created to focus on the challenge of improving access to scalable institutional credit for agriculture in Pakistan. Credit is recognized as a key input for the sector since most farmers lack financing and rely on credit for purchase of inputs.

An array of incentives and support have been approved and/or implemented by the SBP. For the agriculture sector in particular, the SBP has recently announced a **credit guarantee scheme for small and marginalized farmers**. The scheme will be provided to commercial, specialized and microfinance banks for up to 50% loss sharing. It is focused on farmers having holding of up to 5 acres of irrigated land and up to 10 acres of non-irrigated land holdings. The loan size stipulated is up to PKR 100,000 (around USD 971) and the total disbursement under this scheme will be around PKR 30 billion (around USD 300 million). The loan size falls under limits allowed to microfinance banks, and the loss coverage of 50% will encourage MFBs to lend under this scheme.

The SBP has also introduced **micro-insurance schemes for crops and livestock**. The crop loan insurance scheme will cover natural calamities, climate change and plant diseases for farmers with up to 25 acres of land. Given the frequency of natural disasters in Pakistan (particularly floods in the past few years) this scheme will be important to protect microfinance borrowers against possible losses. The

[7] As of December 2014, the SBP had only given permission to seven MFPs to pilot: Tameer Microfinance Bank Ltd., Khushhali Microfinance Bank Ltd., First Microfinance Bank Ltd., Advans Microfinance Bank Ltd., Finca Microfinance Bank Ltd., Apna Microfinance Bank Ltd. and NRSP Microfinance Bank Ltd.

livestock insurance scheme provides coverage to farmers for up to 10 cattle and total disbursement under the scheme will be a substantial PKR 300 million (USD 3 million).

SBP has recently initiated a regulatory mechanism for establishment of **warehousing receipt financing**, and incentives for processing industries in the marginalized northern regions. Warehouse receipts can provide a secure system whereby financing is provided against stored agricultural commodities that serve as collateral and can be sold or traded. This type of financing allows lenders to immediately sell off a very liquid asset, namely the commodities they grow, if a farmer defaults on the loan. The underlying collateral is usually a soft commodity like wheat, rice, maize, cotton and other grains. Warehouse receipts and other collateralized lending are means of accessing post-harvest finance for working capital needs. These steps will facilitate the farming community as well as the financial service providers to increase financial outreach in the sector. As a result, the financing cycle begins after harvesting the commodities (or goods).[8]

The SBP recently released guidelines on value chain **contract farmer financing** – aimed at encouraging banks to extend credit to small and marginalized farmers by leveraging the strengths of existing relationships along the agriculture value chain. According to estimates, there are over 5.4 million small farmers with up to five acres of land holding; often these individual farmers or groups of farmers ensure supply of agriculture products to firms by engaging in formal or informal contracts with different value chain actors including producers, processors, aggregators and traders.[9] The guidelines will enable farmers to avail credit from banks backed by processor's guarantee and most importantly, buyers/processors may get assurance of getting the required quantity and quality of agricultural produce.

Table 39. Benefits of VC Contract Farmer Financing

Small holder farmers	Processors, traders, exporters and arthis
Access to unsecured credit up to PKR 1 million, backed by assurance of buyer in advance	Assured supply of quantity and quality produce
Quality input facilities	Assurance to banks of loan settlement by value chain agents
Adopting new technologies	
Insurance coverage for crop/non-crop activities	

The guidelines introduce five financing instruments:

1. Traders credit: traders advance funds with the guarantee that harvested crops will be available to them for resale at pre-determined or market price.
2. Input supplier credit: short-term working capital finance to growers for access to supplies (seed, fertilizer, agro-chemicals or equipment for production)
3. Marketing company credit: marketing companies advance funds to smallholder producers in exchange for guaranteed delivery of agriculture produce at pre-determined or market price.
4. Lead firm credit: typically large retailer, exporter or agro-processor provide financial and technical assistance and market linkage to small holder farmers.
5. Arthi (intermediary): to act as intermediary between banks and clients for facilitating provision of funds and value added services to small holder farmers.

[8] Framework for Warehouse Receipt Financing in Pakistan; State Bank of Pakistan; May 2014; http://www.sbp.org.pk/acd/Guidelines/2014/Draft-Frmwork-Warehouse-Receipt-Financing.pdf

[9] Guidelines for Value Chain Contract Farmer Financing; Agriculture Credit & Microfinance Department; State Bank of Pakistan; October 2014; http://www.sbp.org.pk/acd/2014/C5-Annex-1.pdf

Moreover, the SBP is implementing a five-year Financial Inclusion Program (FIP) funded by UKAid with the aim to improve access to financial services in Pakistan, including a wholesale **credit guarantee facility for MFPs**. This facility has enabled improved access of MFPs to funds for onward lending to their target clients. The volume of the facility is approximately USD 24 million, which will have a significant impact on the microcredit clients of MFPs – who are primarily based in rural areas. Moreover, the FIP has earmarked around USD 16 million in grants for a **Financial Innovation Challenge Fund** (FICF) to help the financial sector reach the excluded through innovations. In 2014, the second round of the FICF was launched with a focus on "promoting innovative rural and agricultural finance in Pakistan". The fund will be used by financial service providers (commercial banks and MFPs) to pilot and test new products, delivery systems or marketing approaches. With this fund, the SBP aims to spur innovations in either technological advances (such as use of mobile banking) or non-technological advances such as introducing value chain financing and a warehouse receipts system for farmers to serve as collateral for loans.

2.4 Donor Initiatives

Several donor initiatives have taken off for the benefit of the agriculture sector in Pakistan, often with the understanding that collaborative efforts with the formal financial sector will spur productivity and promote sustainable practices in agriculture. Some of these include:

- The **United States Agency for International Development** (USAID) Agribusiness Project (UAP) is an initiative of the USAID in collaboration with the Agribusiness Support Fund (ASF), a Section 42 Company registered under the Companies Ordinance, 1984. The project aims at enhanced competiveness of agricultural value chains in Pakistan with a focus on horticulture and livestock including dairy, meat and fisheries. Since Pakistan's economy is agrarian in nature, at primary, secondary and tertiary levels of production, the overriding objective of USAID's Agribusiness Project is to support and create improved conditions for broad-based economic growth in Pakistan and to create employment opportunities for poverty alleviation.

  The goal of the USAID is to fund economic growth projects to increase incomes and create jobs for 1.1 million rural families (representing approximately 7.5 million Pakistanis) by 2018 by irrigating one million acres of land, improving agricultural processes, and connecting small farmers to major agribusinesses. Programs are working to boost agricultural productivity by modernizing farming technologies, services, and practices. Other programs help agribusinesses and other SMEs tap into better-paying markets. Capacity building of agribusiness owners, including those with small and medium enterprises, will allow for these individuals to take advantage of the increased loan limits from microfinance banks (MFBs) and further expand their output.

  USAID's focus is also on helping Pakistani women to increase their incomes and expand their businesses, which are often run from home. With USAID support, local partner organizations are training women to upgrade their skills, creating new jobs, helping women sell their products more profitably and also linking them with microfinance opportunities to support their home-based enterprises.
- During 2014 and 2016, **Asian Development Bank** (ADB) will help address energy sector needs both through investments and policy reforms. Planned support aims at a more efficient system for generating, transmitting, and distributing electricity; improvements to collection; adjustments to pricing mechanisms; and improved management. Since energy crisis have proven to be a hindrance to the growth and development of the agricultural sector, this will largely help to sustain the necessary growth.
- The **Food and Agriculture Organization** (FAO) of the United Nations launched a 26-month project in 2009 to help the government of Pakistan restore the food security of vulnerable households in the food-deficient areas of North West Frontier Province, Punjab, Sindh and

Balochistan. With funds from the European Union totaling EUR 24.7 million (USD 31.2 million), the project was to enable at least 166,700 farming families (reaching over one million people) to grow enough staple foods – wheat, rice, vegetables and other crops – to meet household food needs.

3. Microfinance Case Studies in Agriculture

Some microfinance providers have taken a holistic approach to addressing the multiple challenges faced by poor farmers, from poor crop productivity to lack of resources and lack of knowledge on modern cultivation techniques. These initiatives have not only increased access to easy and cost-effective financial services, but also focused on value addition services, capacity building of poor farmers and greater access to upstream/downstream markets. In this section we present some interesting cases that have had an impact on rural and agriculture finance in Pakistan.

3.1 Case Study One: National Rural Support Program (NRSP) – Reaching Small Farmers through Innovative Finance in Pakistan: the Sugarcane Production Enhancement Project

- **About NRSP**

The National Rural Support Program (NRSP) was established in 1992 as the largest rural support program in the country. It is a not for profit organization registered under Section 42 of Companies Ordinance 1984.

It has a presence in 56 Districts in all the four Provinces of the country, including Punjab, Sindh, Kyber Pakhtunkhwa (KP), Balochistan and Azad Jammu and Kashmir (AKJ), through regional and local field offices. NRSP is currently working with more than 2.4 million poor households organized into a network of more than 163,314 Community Organizations (COs).[10] NRSP works with its local COs on several multi-dimensional rural development programs, including:

- Microfinance enterprise development program
- Physical infrastructure and technology development
- Human resource development
- Social and human protection
- Environment and natural resource management
- Disaster management
- Social sector services (including health)

The microfinance enterprise development program run by NRSP is one of the largest in the country, having reached 492,386 active borrowers with a gross loan portfolio (GLP) of PKR 7.6 billion as of June 2014.

In an effort to provide innovative services to beneficiaries, NRSP implemented a project titled the Sugarcane Production Enhancement Project (SPEP) in Rahim Yar Khan district of Punjab, in 2001.

- **Motivation & Objectives**

NRSP's mandate is to alleviate poverty by harnessing people's potential and undertake development activities in Pakistan. NRSP's objective is to foster a countrywide network of grassroots level organizations to enable rural men and women to plan, implement and manage developmental activities

[10] National Rural Support Program (NRSP) Monthly Program Update, June 2014. http://nrsp.org.pk/Documents/Programme%20Update%20as%20of%20June%202014.pdf

and programs for the purpose of ensuring productive employment, poverty alleviation and improvement in the quality of life. The strategy implemented by NRSP to achieve this objective is community mobilization and guidance to help local communities achieve poverty alleviation and rural development.

The primary objective of the Sugarcane Production Enhancement Project (SPEP) was to address the need of the hour vis-à-vis implementing new approaches that take into account local, cultural and socio-economic conditions of smallholder farmers. This is necessary to improve access to finance particularly among the rural, under-served population in the country.

- **Design and Delivery Mechanism**

At the core of all NRSP's functions is concept of community mobilization; based on the assumption that people in rural areas have tremendous potential and willingness to identify and prioritize development activities according to their local context. NRSP looks to *inform* and *engage* community members through the formation of community organizations (COs) as a platform for all its interventions.

Once a CO has been formed, social organizers from NRSP help the members draw up micro-investment plans at three different levels: household, group and village. These help the CO members identify their economic needs in concrete terms and plan ways to improve their economic conditions. The plans show that while the COs as grassroots institutions are generally interested in carrying out social sector projects such as building/enhancement of schools, roads, and drinking water and sanitation schemes, although individual members are most interested in carrying out income-enhancing activities. This usually requires financial capital – for which NRSP has established a credit line to meet these household level needs.

A substantial percent of NRSP's lending portfolio goes into the agriculture sector, with up to 55% of clients being smallholder farmers growing crops (cash crops/higher value crops), breeding livestock/ poultry and often supplement their income with non-farm activities. More than 50% of the NRSP program area comprises arid zones and rain fed areas of the country taking in view the main mandate of the organization to eradicate poverty.

One way in which small farmers access to financial products has been facilitated by NRSP has been through the Sugarcane Production Enhancement Project. The project involved the promotion of tripartite collaborations between the microfinance provider (NRSP), smallholder farmers and wholesalers. NRSP provided loans and advisory services to small famers worth PKR 7,000 to 10,000 (approximately USD 70 to 100) per acre for input purchase, while simultaneously signing an agreement with a sugar mill to buy back the produce of the farmers and to deduct the loan and service charges at the source.

- **Funding Strategy**

Funding for NRSP's microcredit facilities are through wholesale lending facilities, primarily from the Pakistan Poverty Alleviation Fund (PPAF[11]) as well as commercial loans.

- **Impact and Outcomes**

The SPEP was launched in 2001 and since then has yielded promising results, including:

- **Increased outreach**: In the first year NRSP targeted 1,800 small farmer under this project in one Union Council of Rahim Yar Khan. As of 2013, the number of smallholder farmers had increased to 32,447, as the project became operational in 33 Union Councils of Rahim Yar Khan district.

[11] Government supported apex fund for microfinance in the country

- **Higher yields**: 68% of the farmers enrolled in this project were able to increase their yields of sugarcane from 19 tons per acre to 27 tons per acre. The remaining 32% were producing more than 31 tons per acre.
- **Higher incomes**: Smallholder farmers have earned higher incomes as a result of increased yields. In some cases incomes have risen by 80%.
- **Improved human resources**: Smallholder farmers' technical knowledge pertaining to use of different types of seed and farm machinery was seen to improve over time.
- **Cost effectiveness**: From the perspective of the MFP (in this case NRSP), the project yielded a portfolio at risk (PAR) of less than 1% and transaction costs were significantly reduced of loan officers visiting the field to recover loans – as loan amounts were deducted by the mill upon purchase of produce.

- **Monitoring and Evaluation**

Outcomes of NRSP's SPEP program were studied by independent academics from Simon Fraser University, Canada and other Universities. These studies outlined the significant increase in income of credit clients, which ultimately had a positive impact on clients' ability to increase their ***agricultural expenditure***. Clients tend to rent more land, purchase more fertilizer and young plants, and invest in more watercourse maintenance compared to non-client farmers in the same locality.

Interestingly, the study found that there were no significant differences in monthly ***household expenditure*** *per capita* between client and non-client households. Instead, it was found that poor households (regardless of their status as clients in the SPEP program) tend to spend a significant portion of their income on food – 48% of the overall sample size in this case. Having said that, investments in the purchase of assets was higher among clients by 18%.

The studies confirmed efforts made by NRSP to reach out to the appropriate target group, that is, poor community members with less than 10 acres of land holdings.

Up to 73% of the 300+ households interviewed stated that their crop production had increased as a result of having credit available for agri-inputs. Thus, the SPEP program has had a significant impact on income of clients' households, particularly those those who were involve with their local community organizations (COs) for longer periods.

- **Key Factors for Success and Challenges**

The most significant innovation in the Sugarcane Production Enhancement Project implemented by the NRSP was the recognition that the strength of a financial institution in reaching out to smallholder farmers lies in its ability to develop partnerships and collaborate with not just the producers (i.e. smallholder farmers) but also the wholesalers (i.e. buyers). Traditionally, smallholder farmers would access loans from informal money lenders (*arthis)* who charge very high rates of interest and often lend on the condition that the farmer sell his produce back to the *arthi* at very low prices. The innovation in the SPEP model was the recognition that in a market characterized by such linked contracts, it was necessary for NRSP to approach the wholesaler i.e. the mills to ensure that they buy the produce from farmers at fair prices.

An additional factor that accounts for the success of the project was the fact that apart from supplying smallholder farmers with loans, the NRSP corroborated financial services with advisory services to increase crop production. This was an added-on service that banks and microfinance providers do not typically supply.

Amongst challenges faced, including those that continue to persist across most microcredit programs a major consideration is the risk to the microfinance provider of lending for agricultural purposes (due to chances of crop failure, crop damage in natural disasters, disease and pestilence).

In the course of SPEP implementation, challenges also included ensuring that the contract drawn up between the NRSP and the mill was done in a manner in which small farmers stood to benefit. Ensuring fair prices for the small farmer's produce was a challenge.

3.2 Case Study Two: Reducing Vulnerabilities of the Poor through PPAF's Crop and Livestock Insurance Initiative

- **About Implementing Partners**

The Pakistan Poverty Alleviation Fund (PPAF) acts as the apex lender for microfinance in the country, providing both grants and loans for onward lending to partner organizations, that is, local microfinance providers (MFPs) in the country.

PPAF partner organizations not only work on providing microcredit, but also run concurrent projects on health, education, water, infrastructure and other areas. These programs have an underlying focus on a community-led, demand-driven approach with the formation of community organizations (COs). The COs emphasize community ownership not just for the identification and preparation of interventions but also implementation and finally management in a sustained fashion.

For the implementation of the micro-insurance initiative, PPAF worked with two of its partner organizations which enjoy strength in the agriculture sector: National Rural Support Program (NRSP) and Soon Valley Development Program (SVDP).

- **Motivation and Objectives**

PPAF aims to promote an effective approach to poverty alleviation, which is aligned closely with Pakistan's commitment to the Millennium Development Goals (MDGs). Its mission reflects the role of PPAF as a facilitator, "helping to alleviate poverty in Pakistan through empowering poor people by providing equitable access to opportunities for increased incomes and improved quality of life".

The motivation behind the micro-insurance initiative was to demonstrate a business case for micro-insurance in Pakistan's context, to act as an innovative model catering to the needs of small and marginal income farmers.

- **Design and Delivery Mechanism**

PPAF and IFAD, through a strategic partnership with the Securities and Exchange Commission of Pakistan (SECP), designed two products[12]:

1. Weather index-based crop insurance and;
2. Livestock insurance

A detailed study was conducted for the selection of pilot sites – Talagang and Soon Valley – which would allow the team to gauge losses in case of deficient rainfall. The weather-based index was designed after thorough review of international best practices, and the pilot would take into account farmers' needs and local crop and weather requirements.

[12] Reducing Vulnerabilities of the Poor through Micro-Insurance; Good Practice Note No. 1; Pakistan Poverty Alleviation Fund; October 2012.

The index-based product was designed so that the insurance company would provide compensation to the policy holder (farmer) when the rainfall recorded by the weather stations of the insured farmers is below a minimum threshold. The claim payment is to be based on the value of the index and not on the actual losses measured in the field. This is designed to avoid moral hazards, as payment is based on the index rather than individual losses. The claims payment process is meant to be efficient and inexpensive to process.

The index-based insurance pilot was first launched in 2012 for wheat crop, with 500 farmers taking part in each of the two locations, with plans for roll-out in other crops from 2013 with local insurance companies.

For livestock insurance, PPAF followed a model for a "live weight" livestock insurance product in which the sum insured was linked to the actual weight of the animal at the time of insurance. This allows a scientific base for accessing the actual value of an animal at any given time, thereby making it possible to calculate the price of the animal on the date of loss and ensure adequate compensation. PPAF minimized operational/administrative costs on this pilot by providing mobile weighing machines in the pilot locations to determine animal weight.

Both pilots involved collaborations between several stakeholders, including IFAD, SECP, PPAF, partner organizations (microfinance providers), insurance companies and international reinsurers – to develop a sustainable market based crop and livestock insurance model.

- **Funding Strategy**

As the apex lending for microfinance in the country, the PPAF is currently running a third cycle of funding (titled PPAF-III) through support from the World Bank's International Development Association (IDA). The fund constitutes a grant as well as wholesale loan to encourage PPAF partner organizations (microfinance providers) to focus microfinance on districts with low penetration and/or high level of poverty.

PPAF's micro-insurance initiative was launched with support from IFAD, under the Program for Increasing Sustainable Microfinance (PRISM).

- **Impact and Outcomes**

Upon completion of the pilot for micro-insurance, it was found that the lack of claims being processed in that particular year (because of good rainfall leading to good crop yields) had a negative impact on the perception of farmers vis-à-vis the importance of insurance schemes. In order to relate the desired outcomes, it is pertinent to have sufficient time to carry out a pilot – at least three years. This would allow for the pilot to account for particular changes in the external environment, particularly in the case of micro-insurance that is weather-based.

While the impact of the micro-insurance products is limited to the small number of farmers engaged in the one-year pilot phase, the expected impact of these micro-insurance schemes is expected to be much larger as they expand over time.

Natural calamities, climate change and plant diseases all have the capacity to wipe out the entire earning ability of rural families, forcing borrowers to default on their loans. This was witnessed in certain areas of Punjab and Sindh in the aftermath of successive floods in 2010 and 2011, and again in 2014. Resultantly, microfinance providers are often left with no options but to write off these loans and post losses. This could lead to the slowing down of growth in outreach, as MFPs recoup their losses and halt lending fresh loans in affected regions. These micro-insurance products provide an option for MFPs to mitigate potential losses in their rural finance portfolio.

Mandatory day long training sessions titled "Information on Animal Rearing and Diseases" had an important impact for the livestock insurance product. The knowledge about disease identification and rearing techniques stays with livestock farmers even when they graduate out of the program. However, due to lack of literacy in the Soon Valley, it was later recommended that audio and video content be incorporated in the training material.

- **Key Factors for Success and Challenges**

While the index-based insurance products reduce the risk of moral hazard in the payment of claims, the nascent micro-insurance industry in Pakistan has yet to overcome multiple challenges in delivery and implementation. Key issues include insurance coverage being restricted to selected crops and livestock animals, caps on liability to a percentage of the premium paid, which does not cover the possible extent of losses. As the farmers would point out, if livestock insurance only covers 90% of the cost of animal purchase, this creates a significant risk in terms of lost investment on animal feed. Perhaps, an innovative insurance product that revaluates livestock every couple of months would be a better fit for these programs. There is a need to further expand these schemes according to the needs of the microfinance industry and clients.

Micro-insurance is a relatively new concept for stakeholders, and as such it is often challenging to encourage new systems and highlight the importance of risk mitigation to smallholder farmers. More awareness raising activities are needed to encourage these farmers to take advantage of these schemes.

In moving beyond the donor-funded pilot to a more sustainable program, it may be challenging to involve new stakeholders, such as the insurance providers, with little experience in the microfinance sector. Future collaborations between MFPs and insurance companies will involve negotiating to meet the needs of the untapped segment of the population, and demonstrate their potential as a viable business opportunity.

3.3 Case Study Three: First Microfinance Bank (FMFB) Ltd. – Village Group Financial Services

- **About FMFB**

The First Microfinance Bank Ltd. (FMFB) was established in 2002 as a nation-wide private sector microfinance bank, licenced by the State Bank of Pakistan. It operates under the Aga Khan Agency for Microfinance (AKAM) – an institution created under the social development pillar of the Aga Khan Development Network (AKDN). FMFB-P was created through a structured transformation of the credit and savings section of the Aga Khan Rural Support Program's (AKRSP) integrated development program to pioneer the microfinance sector in the country in 1982, beginning in Gilgit-Baltistan and Chitral.

FMFB operates through a vast network of over 87 branches and sub-offices housed at Pakistan Post Offices in remote locations across the country. Since its inception, FMFB has expanded outreach to become one of the largest microfinance providers in the country, with over 130,000 active borrowers and a gross loan portfolio (GLP) of PKR 4.6 billion as of June 2014. Moreover, FMFB is able to mobilize savings from their beneficiaries as a regulated MFB. There are over 268,000 active savers at FMFB, with a total value of savings amounting to PKR 8.1 billion as of June, 2014.

- **Motivation and Objectives**

FMFB-P was established with the mission to respond to poverty and contributes to the social and economic well-being of society by providing opportunities to under-privileged households in Pakistan.

- **Design and Delivery Mechanism**

FMFB launched its Village Group Financial Service product (VGFS) in 2006, which focused on providing short term financial facilities for meeting working capital needs of agri and livestock farmers. The product was developed based on extensive primary research and understanding of financial needs of low income farmers, having small or no landholdings.

Based on its mission, FMFB undertook detailed secondary research to identify poor concentration areas in Pakistan, and thereafter determining the major occupational activities. The research indicated that the cotton-wheat-rice belts of Punjab and Sindh comprised of poor populations in the country. A primary research followed subsequently, which identified that the poor farmers were subject to exploitation at the hands of the middlemen, since they were cash constrained to undertake their farming activities. Thereafter, FMFB strategized to target these populations with a financial product which would give farmers the ability to buy agriculture inputs on cash. Likewise, it was learnt that the productivity of the milking animals was poor since livestock farmers did not have finances to buy good quality fodder or build sheds for protecting animals. Also, a major source of income in rural households is rearing and fattening of small animals for sale at Eid. As such, the VGFS product also facilitated the women farmers in increasing the productivity of the existing herd and purchase of small animals for rearing.

The product designed by FMFB provides financial facilities on bullet repayments, disbursed at the time of sowing or purchase of animals, with repayments after harvest or sale of animals. The product design supports the cash flow cycles in these seasonal businesses.

Over time, the VGFS product evolved into a separate Agriculture Finance and Livestock Finance product (two products). While Agriculture Finance still includes financing for agri inputs for supporting farming of major crops and vegetables, Livestock Finance has been enhanced to finance purchase of milking animals (buffaloes and cows), and thus includes a medium term loan facility for the same.

- **Funding Strategy**

While the funding structure of FMFB is primarily independent of donors, specific technical and financial support has been provided to develop agriculture products/services – particularly for product development and market research. Technical Assistance under the "Financial Sector Strengthening Program (FSSP)" of the Swiss Agency for Development and Co-operation was provided, and recently, FMFB has been awarded technical assistance under the FICF (SBP) for developing a product to test solar tube-wells.

- **Impact and Outcomes**

As per its mission, FMFB has attempted to deliver products and services that support socio-economic benefits for clients. A vast majority of poor people live in rural areas in Pakistan, while women constitute more than half of the population living in poverty. Therefore, FMFB aims to target these niche sections of the population, with 34% of FMFB borrowers are women entrepreneurs and 61% of the borrowers are in rural areas. Of the total outreach to rural areas, 53% (close to 97 thousand borrowers) are smallholder farmers.

The experience of targeting agriculture sectors has been successful in increasing the asset book of FMFB as well as meeting client needs (while reducing informal borrowing from middlemen at exorbitant rates). Currently, more than 50% of the asset book comprises agri and livestock loans.

- **Key Factors for Success and Challenges**

Reaching out to the agriculture sector has created numerous opportunities for FMFB. There is a huge potential in this sector with a majority of the client market for MFPs in Pakistan engaged in agri farming and livestock rearing. FMFB has also realized that there is a potential to develop dairy farming (supporting businesses with 2 animals or more). Moreover, FMFB can support supply chains and auxiliary businesses linked with this sector.

There is a need for well-defined risk mitigating strategies especially against climatic vulnerabilities, at the institutional level. There are limited options for crop and livestock insurance, which FMFB finds are not designed to meet the needs of the microfinance sector clients. Moreover, income diversification within households in rural areas (other than agri and livestock activities) is a new concept, for which mind-sets need to be developed – hence there is a need for client education. Integrated approaches and partnerships amongst MFPs and NGOs should be considered.

Concurrent floods since 2010 have adversely affected credit culture in many districts. The instances of willful defaults and delayed repayments have increased due to the fact that there have been no penalties for non-repayments, which has been challenging for FMFB.

Going forward, FMFB envisions a shift in focus from group loans in agriculture to individual loans. The individual financing would help the farmers to graduate to the bigger loan size quicker, as well as mitigating credit risks due negative social collateral.

3.4 Case Study Four: Jinnah Welfare Society (JWS) – Farmers Emancipation Loan

- **About JWS**

Jinnah Welfare Society (JWS) was established in 1992 as a specialized microfinance institution (MFI). It works primarily on microcredit programs, enterprise development, agri-financing, human and institutional development and community physical infrastructure.

JWS works primarily out of 10+ branches across Punjab, with around 21,000 active borrowers and a GLP of around PKR 3.2 million as of March 2014. Out of these total active borrowers, a majority are female borrowers.

- **Motivation and Objectives**

JWS aims to work with low income and unbanked people with the mandate to eradicate poverty. JWS has designed its mission to uplift the literacy rate, improve the physical infrastructure and capacity development of the poor communities. The objective is to establish a clear cut working methodology to alleviate poverty in target areas.

- **Design and Delivery Mechanism**

In terms of reaching out to agriculture sector, JWS is working with small farmers having cultivated land of 5 to 10 acres. Previously, smallholder farmers had to approach conventional middleman (arthis) to purchase agriculture inputs i.e. seeds, pesticides, fertilizer, diesel etc. JWS aims to address these issues faced by farmer communities through its **Farmer Development Program**. This program has three integrated components:

  - Financing: providing easy and cost effective loan facility to purchase agriculture inputs i.e. seeds, fertilizer, pesticide, herbicide, diesel etc. from open market

- Capacity building of the Farmers: trainings on crop analysis, wheat and rice cultivation methods, livestock management, ground leveling, soil and water testing and exposure visits to learn about latest and modern techniques of farming.
- Development of Market Linkages: provide farmers with alternate market channels such as input suppliers and dealers, so that they can receive the desired market price of their produce.

Table 40. Snapshot of JWS Microcredit Product for Agriculture

Product Features	
Lending type	Group based (10-12 members)
Product description	To purchase seed, fertilizer, pesticides, and herbicides for Rice & Wheat crops.
Loan eligibility criteria	Land Cultivation (5-10 Acre), Permanent resident of the locality, Computerized CNIC Holder
Loan amount	PKR 50,000/150,000
Repayment period	6-7 month
Mark up rate	10% per crop cycle
Repayment procedure	Seasonal after six to seven months in bullets
Collateral	Social

In 2010, JWS initiated the **Farmers Emancipation Loan** with the aim of "emancipating" small farmers from the clutches of the village middleman. JWS designed a loan product that not only sought to provide financial resources to the small farmers, but also offered business development (technical training) and agri-extension services through the creation of forward linkages with various government departments and seed and fertilizer providers.

After conducting several pilot projects, JWS rolled out the Farmer's Emancipation Loan to 450 farmers. For the procurement of agriculture inputs, smallholder farmers having 5-6 acres of land were given PKR 10,000 per acre for three consecutive crop cycles. In order to ensure impact, JWS disbursed the amount for the second crop cycle when the farmers were in the process of selling their crop – a period when the small farmer's cash flow comes under significant pressure. At the same time, JWS imparted business development training to smallholder farmers about latest farming techniques and efficient use of water, seed and fertilizers. Farmers were also linked up with certified vendors like Naya, Savera who sold genuine and unadulterated pesticides.

- **Funding Strategy**

The Farmers Emancipation Loan was launched under the International Fund for Agriculture Development (IFAD)-funded "Microfinance Innovation and Outreach Program (MIOP)" implemented by the Pakistan Poverty Alleviation Fund (PPAF).

- **Impact and Outcomes**

The model implemented by JWS was successful in reaching out to over 3,700 clients over four years. The provision of microcredit allowed smallholder farmers to avail services in lieu of traditional arthis or middlemen, in order to procure various agriculture inputs-seeds, fertilizers and pesticides. Traditionally, farmers had to pay back their loans by selling their crops only to the middleman at unfavorable rates. According to the farmers, "it was impossible to break the cycle of debt given the huge interest we had to pay the middleman".

Anecdotal evidence from the area links increased trainings with a general increase in crop yield, with farmers often sharing that they had no previous knowledge about new techniques such as "mixing fertilizer in water to spray on crops".

- **Key Factors for Success and Challenges**

The key lesson learnt by JWS was that there is immense potential in agriculture sector to provide easy and cost effective loan facilities that smallholder farmers prefer (particularly compared to those provided by arthis).

In addition to this, supportive components such as capacity building (trainings) and development of market linkages encourages farmers to increase their per acre yield. As a result of the Farmer's Emancipation Loan, small farmers ended up making, on average, PKR 6,000 more per acre.

Farmer's Emancipation Loan shows significant positive impact and enhanced funding can facilitate other MFPs to work in cohesion to target similar markets and to test-pilot products for potential replication and scale up.

Business development services in the form of technical training in the latest farming techniques hold the maximum potential in terms of enabling the small farmers in improving their qualities of life. In order to ensure product success, short week-long trainings should be made mandatory for potential borrowers.

4. Challenges and Way Forward

As highlighted above, there is huge potential for financing across several players in the agriculture supply chain in order to make farmers more productive, and enable them to earn higher, more stable incomes. Pakistan holds great potential for enhancing market-based agricultural growth and higher levels of productivity through scaling up credit provisions, attracting banks into mainstream rural finance, enhanced support services and building backward and forward linkages along the productive supply chain. At the same time, there are many issues to be considered, particularly in the context of Pakistan. This section highlights some of the challenges and potential way forward for microfinance in agriculture.

The agriculture sector represents a specific set of challenges for microfinance stakeholders that would need to be addressed in order to provide sustainable, market based services to this vast and untapped market. In terms of the challenges faced by the **smallholder farmers**, these include: little access to quality, affordable inputs, machines, infrastructure and support services. Poor farmers have little information about prices, markets or best practices. Smallholder farmers with little or no access for formal finance services continue to face high cost of intermediation (middlemen or *arthis*).

Industry wide challenges include the issue of great variances in yield which adversely affect agricultural contribution to GDP. Entrenched and fragmented land ownership structures play a large role in keeping yields low and the landless in poverty. Further, land market rigidities perpetuate inequality. Land is rarely bought and sold, so that the status quo of unequal land distribution tends to hold, and the land rental markets are highly inefficient. The majority of the rural poor are landless or own very small plots.

Limitations of the water allocation system restrict the average farmer's access to water. The irrigation system is inefficient, with steep seepage losses in almost every component of the delivery system. Access to canal water is contingent on the location of the land, and there is a lack of clarity, resources and capacity of local farmer organizations to play a strong role in this regard. Moreover, public agricultural research is weak; lack of funding for this type of research and limited human resource capacity is a key constraint.

Crop and livestock insurance schemes for smallholder farmers would assist with risk mitigation for products targeted at the agriculture market; it will also assist in attracting interest from commercial banks and insurance companies. Efforts should be made to link up with key insurance stakeholders for conceiving, test-piloting and implementing more crop-insurance products.

Furthermore, several efforts have already been made recently by the **central bank** (SBP) with regards to a credit guarantee scheme for MFP, credit guarantee scheme for poor and marginalized farmers, and guidelines for warehouse receipt financing and value chain contract farmer financing. These are shaped to have a tremendous impact on the ability of MFPs to target the agriculture sector.

Box 4. Need for Specialized Micro-Insurance in Rural Areas*

Research conducted by Shore Bank International in the rural areas of Sindh and Punjab revealed that insurance is the most desired value added service along with a loan by the microfinance clients. The research was conducted as a quantitative survey with more than 600 respondents within nine rural districts of both provinces. People prefer an insurance service as a value added service to their micro-loan against opening a savings account, remittance services and financial education services. Within the ambit of insurance, health insurance was ranked highest followed by life and crop insurance.

* **Source:** Microinsurance in Pakistan: A diagnostic study of demand and supply. FIRST Initiative; The World Bank; Securities and Exchange Commission of Pakistan (SECP); October 2012.

For ***microfinance providers***, the entrenched role of the arthis in the agriculture supply needs to be addressed before MFPs can position themselves as the main sources of credit for small farmers.

Collectively, Pakistan's microfinance sector has shown impressive growth over the past two decades. Supported by a favourable policy environment, MFPs have focused on expanding outreach and have begun experimentation with new products. Efforts on the savings and insurance side have been limited to the MFP's credit clients and need to be extended beyond this market. Most service providers offer similar products (in terms of loan and loan size) for agriculture, although some have experimented with different pilot projects (mentioned in the previous section).

The growth of the sector has brought forth the challenge of training and retaining an appropriate human resource base. As MFPs diversify into different markets and services, the need for staff trained in these business lines, such as agriculture production, will increase. In addition to this, qualified trainers and technical assistance will also be required to meet customized demands of the agriculture sector.

The small farmers whose farm income is small and family size is relatively large are generally constrained for want of funds to meet their farm input requirements like seed, fertilizer, pesticide, etc. To improve productivity and income of these farmers, who constitute more than three fourth of the farming community, appropriate measures should be taken to target microcredit products that suit their needs and also provide them with value-added services.

While some of these issues may not be within the scope of the microfinance providers to resolve, there is a need for value chain development for selected crops that would bring together efforts of stakeholders along the value chain (small farmers, suppliers, BDSPs (full form?), MFPs, market players) to achieve scale and productivity. Microfinance has the potential to allow farmers to smooth their cash flows and provide them access to productivity enhancing techniques. It increases choice and empowers marginal and poor farmers.

While various efforts have been made to cater to the agriculture sector, MFPs (particularly microfinance banks) face challenges in terms of their lack of understanding of the agricultural sector and the need to develop customized credit facilities for the vast smallholder farmers in the country. Other challenges that will need to be addressed are the lack of market infrastructure, lack of enabling legal environment (collateral options and land titles are often issues), a powerful informal lending system (arthis) and poor financial literacy/understanding of banking requirements on behalf of the clients.

What is needed is a set of holistic financial services (not just credit but also savings, insurance) dedicated to financing agricultural related activities such as input supply, production, distribution, wholesale, processing and marketing. In addition to this, business development services are needed to educate the rural farm enterprises, households and individuals.

Part 6
Philippine Microfinance in Agriculture
Enrique L. Navarro

1. Introduction

Microfinance activities through cooperatives in the Philippines date back to the early 1900s. As described today, microfinance surfaced in the 1980s but it was in 1997 only when it was codified into a national law with the signing of the Social Reform and Poverty Act (Republic Act 8425). The law prompted the establishment of the National Anti-Poverty Commission (NAPC) and the National Strategy for Microfinance. The ultimate goal of the government's National Strategy for Microfinance is to create a sustainable private microfinance market, where the private sector drives market dynamics such as products and pricing. The government's role is limited to providing an environment which enables the market to prosper (Asia Focus, 2010).

The General Banking Law of 2000 recognized microfinance as a legitimate banking activity. It is a primary catalyst for accelerated growth and commercialization of microfinance over the years since the law took effect. The law empowered the *Bangko Sentral ng Pilipinas* (BSP, the central bank) to create measures recognizing microfinance providers as banking institutions and to provide regulatory guidelines specific to microfinance institutions falling under BSP's jurisdiction. BSP is committed to the development of microfinance in the Philippines declaring microfinance as its flagship program for poverty alleviation. Since 2000, the BSP has been proactive in the development of microfinance using a three-pronged approach as follows:

- Enabling policy and regulatory environment
- Increased capacity of the BSP and banking sector on microfinance operations, and
- Promotion and advocacy on the development of sound and sustainable microfinance operations.

The microfinance sector in the Philippines is one of the oldest and most active in the world (Daley and Sauté, 2005). In 2008, continuous growth and dynamism in the country's microfinance industry was seen against the backdrop of enabling policy and regulatory environment. New players, wider range of products and services, technological innovations and applications attest to the fast growth and development. Recently, the Economist Intelligence Unit (EIU) ranked the Philippines first in Asia and third overall on its microfinance index, after Peru and Bolivia. EIU awarded a perfect score for its regulation of microfinance activities and financial institutions. The country also received a perfect score for the legal environment surrounding the formation and operation of specialized microfinance institutions (MFIs). EIU highlighted the need to increase the diversity of microfinance products and services available to customers. In 2010, Asia Focus observed a broadening of services which include savings and micro-insurance though the numbers of microfinance providers that offer such services remain small.

2. Research Methods

This paper is based on review of literature and case studies. The papers of Habaradas and Umali (2013) and John J. Caroll Institute on Church and Social Issues (undated) provided most of the information needed in describing the state of agriculture in the Philippines. Interviews of staff and client representatives from the subject microfinance institutions and data from their annual reports shaped the case studies. The three case studies represent the three categories of microfinance institutions in the Philippines, i.e. microfinance NGO, microfinance-oriented rural bank and microfinance cooperative.

3. Philippines Agriculture Profile and Financing

3.1 Agriculture Profile

The Philippines is an archipelago of more than 7,000 islands. Thirty-two percent of the total land area (298,170 square kilometres) was agricultural lands based on 2013 figures (http://countrystat.bas.gov.ph/?cont=3). Of the agricultural lands, 51% was arable and 44% was permanent croplands. Agriculture that counts fishing shares 10% of the GDP (USD251 billion at current prices) and 31% of total employment (38.12 million persons). Major agricultural ventures are crop production, fishery, livestock and poultry. The top export commodities are coconut oil, fresh bananas, tuna and pineapple. (Note: this section is too brief and needs to be expanded to include the extent of supply of institutional credit to agriculture sector and its trend over time.)

3.2 Agricultural Financing

Based on data from the Philippine Bureau of Agricultural Statistics (BAS), agricultural loans were 7.5%, i.e. USD16.4 billion, of total loans in 2012 (Valencia, 2014) . Production loans took a share of 35.1% of the total agricultural loans in the same year. The total production loans of 38.7% went to production of food sources such as rice, livestock and poultry, and fruits, vegetables and root crops in the order of loan distribution.

In 2012, loans to support the production of major industrial crops such as sugar and coconut accounted for 8.3%. Sugarcane registered as the most financed crop with 39.3% of credit assistance.

The reported magnitude of total agricultural loans in 2012 was higher than that of 2011 due largely to loans that financed more production activities. According to BAS, private commercial and rural banks continued to be the largest providers of agricultural production loans even if their loan releases have been declining for five years prior to 2012.

The decline may be attributed to the increase in loan provisions of specialized government banks such as the Land Bank of the Philippines (LANDBANK) and Development Bank of the Philippines (DBP) during the period. LANDBANK specialized in loans for agrarian reform beneficiaries while DBP in loans for agri-based processing industries such as those related to rice, coconut and livestock.

LANDBANK and DBP belong to the government financial institutions (GFIs) that are allowed and mandated to directly provide wholesale credit to private retail financial institutions. For a long time in the 70s and 80s, both financial and non-financial institutions of the government provided directed credits that were targeting specific sectors such as rice farmers. Unfortunately, these directed credits characterized by high default rates, political pressures, etc. were unsuccessful.

Other than the private commercial banks and rural banks earlier cited, private financial institutions that provide agricultural loans are cooperatives, cooperative banks, microfinance NGOs and savings and loan associations. These institutions charge market-driven interest on loans, which form part of the reforms undertaken to liberalize and deregulate the financial sector in the early 80s.

4. Agricultural Microfinance

Microfinance clients in the Philippines are mostly found in the rural areas where agriculture drives the major economic activities. The Philippines being an archipelago has significant coastal areas where the main source of livelihood is fishing. Fishing being considered as a high risk entrepreneurial venture is the least served by microfinance. Considered both risky activities for financing, many MFIs have been hesitant to channel their funds to these forms of livelihood until recently.

There is a growing number of MFIs developing loan products for clients engaged in agriculture. Some are already implementing agricultural microfinance programs like ASKI, CARD Inc., CARD Bank, ECLOF, Paglaum Multi-Purpose Cooperative, Inc. and TSPI. Except for the RBAP-MABS (Rural Bankers Association of the Philippines-Microfinance Access to Banking Services) that publishes a list of rural banks that provides agricultural microfinance loans, there is no comprehensive list of MFIs in the Philippines that provide such product. Since 2004, RBAP-MABS has now 18 rural banks with more than 58 branches all over the country that offer micro-agriloan product (MAP). Over 43,000 loans amounting to more than USD13 million have been disbursed to small farmers in the Philippine countryside (www.rbapmabs.org).

RBAP-MABS developed the MAP in 2004 where the amount of loan is determined through a cash flow analysis of the household income and expenses and not on pre-determined financial requirements of an agricultural commodity. A MAP client has an option to pay the loan by straight amortization scheme or a scheme that combines regular amortization and a balloon payment at the time of harvest or after sale of produce. The MABS micro-agriloan finance a variety of farming and fishing activities that include production of grains, fruits, vegetables, livestock and marine products.

4.1 Limiting Factors

Outreach by microfinance institutions to poor entrepreneurs has been remarkable but not in the agricultural sector. NAPC (2004) reported that more than two-thirds of the poor households in the country do not have access to financial services, and that the poor farmers disproportionately fall into this category. This could be attributed to the irregularity of cash flow in agricultural households and unique and uncontrollable risks, such as weather conditions and input prices that are inherent to agricultural activities. Despite these, there is still an increasing interest to expand microfinance services to agricultural households.

Based on the study conducted under the Innovations for Poverty Alleviation (IPA), a partnership of Pinoy ME, the Microfinance Council of the Philippines (MCPI), and the Hanns Seidel Foundation (2009), there is a number of challenges faced by MFIs that are currently offering agricultural loans across the country. Many of these challenges such as lack of collateral and insufficient information about creditworthiness are associated with microfinance in general. Three hurdles that are unique to agricultural lending are crop failure resulting from bad weather or pests, low yield and poor quality of produce due to underinvestment in inputs, and reduced harvest income caused by market failure in the sale of produce. Though not unique to agricultural financing, family illness and poor health become problems due to dependence on family members for farm labor (IPA, 2009).

4.1.1 Bad weather and pests

Crop failure due to bad weather and pests are the biggest causes of default. Filipino farmers bear a particularly high risk of natural calamities especially from typhoons that averages 20 a year. Similarly, pest infestation poses an inherent challenge to farming.

To reduce the risk of default due to crop failure, financial institutions may offer insurance together with their loan products. However, few MFIs offer crop insurance to protect their loan portfolio because of the relatively underdeveloped insurance market in the country in addition to the lack of insurance products specifically designed for small farmers. The Philippine Crop Insurance Corporation (PCIC) offers a variety of crop insurance products but its basic insurance reimburses input costs up to a certain ceiling only plus an optional 20% in the event of crop failure. Payout only covers a small amount of the loss from pests and natural calamities.

Traditional crop insurance products that provide payouts based on cropping outcome present a moral hazard. The farmer faces a strong incentive to under-invest to protect his/her crop, knowing that he/she can collect insurance if it fails. This makes insurance more costly and operationally difficult for the insurer. Some insurers have began to develop weather-based policies, which pay out benefits based on objectively-measured weather conditions (e.g. amount of rainfall at a given time of year) to deal with this moral hazard.

Pest infestation presents a greater challenge for insurance product design. It is extremely difficult to create objective measures of pest problems that are beyond farmers' control.

4.1.2 Under-investment in inputs

Many farmers under-invest in the quantity and quality of farming inputs, such as seeds and fertilizers. High and volatile input prices, farmers' lack of technical knowledge, credit constraints or lack of fund are the common causes.

Clients face uncertainty in the cost of production and profits from one season to another. High and consistently rising input prices affect farmers greatly because they appear to be extremely price sensitive.

The lack of relevant knowledge or skill among small farmers is another reason for under-investment. Farmers lack awareness of new seed varieties, fertilizers, and chemicals and are doubtful about which inputs are most appropriate to local conditions or how to utilize them effectively. For example, farmers prefer to use home-saved seeds because they are adaptable to local conditions, less costly, less technical skills required and have lower maintenance requirements. However, yield quantity and quality are lower compared to hybrid seeds or certified seeds that are less familiar. Using hybrid or certified seeds requires more inputs and technical assistance.

Farmers lack the capital to make upfront investment or are unable to manage little funds across growing seasons. Most MFIs do not provide loans big enough to cover the farmers' full cost of production. Farmers without additional non-farm income sources find it difficult to accumulate sufficient savings or even manage their seasonal cash flow to purchase inputs at the right time.

4.1.3 Inefficiencies in the output market

There are two types of output markets for agricultural commodity (particularly rice): the low end market composed of traders and millers and the high end market, which is represented by the National Food Authority (NFA). Traditionally, rice farmers in the Philippines borrow from local traders and millers that guarantee to purchase the farm produce. Loans are typically a combination of cash and kind. Anecdotal evidence from MFIs suggest that in some cases, risk-averse farmers prefer the guarantee of output purchase even if prices offered by traders and millers are lower than the market price. Christen and Pearce (2006) pointed out that this arrangement is preferred by both lenders and farmers. Farmers can avoid the uncertainty in output markets and lenders can control the quality of outputs to some extent by providing the inputs themselves.

Farmers may opt not to sell their produce at the highest available price to avoid any associated risk and get cash needed immediately to repay loans. Moreover, lack of access to post-harvest equipment or transportation limits their decision to look for markets where they can sell at higher rates. Problems in the output market and the limited information on market prices are major determinants of small farmers' well-being.

4.1.4 Poor health

Family illness is one of the biggest risks to small farmers as well as lending institutions. Illness affects repayment by (1) making family member unavailable for labor, (2) diverting farm fund to pay medical expenses, and worst (3) taking additional loans to cover medical expenses mostly from moneylenders that charge high interest rates.

4.1.5 Limited property rights

Most MFI clients are tenants of the land they cultivate or agrarian reform beneficiaries. Only a few own farm land. Under this situation, farmers are unable to sell or lease the land or even offer it as collateral for a loan.

4.2 Evolving Approaches

Note: the discussion in this section is too generic. It would be useful to provide some examples/ experiences from the Philippines under each type of approach included in this section.

MFIs use a variety of approaches in the design and implementation of agricultural loan products. Lending programs may be divided into two main groups: cash-flow-based lending and production-cost-based lending (also referred to as production-budget-based lending).

The Innovations for Poverty Action (IPA) in partnership with the PinoyME Foundation, Benigno S. Aquino, Jr. Foundation and Hanns Seidel Foundation/Germany reported the following approaches (2009).

4.2.1 Cash-flow-based lending

A method commonly employed in non-agricultural microfinance is calculating the debt burden based on regular cash flow from non-farm income. Repayments are usually collected on a frequent short term basis (weekly or bi-weekly). Cash flow lending is easy to administer by an MFI that is already engaged in regular microfinance operation. The loan processing and collection do not differ much from the typical microfinance program. It is also less risky for lenders since it requires farmers to have diverse income generating activities. This lending scheme is not closely tailored to the cash-flow need of small farmers. Repayment schedules are misaligned since income comes once or twice a year at harvest time. Loan amounts are usually smaller since they are not designed to cover production costs. These loans may not be able to help farmers overcome credit constraints for optimal use.

RBAP-MABS is a strong advocate of the use of cash-flow-based lending vis-à-vis collateral-based lending (Chemonics International, 2012). It has suggested using the same approach to small enterprises called the "missing middle" that is not often served because of the collateral requirement. Many MSME entrepreneurs in the Philippines do not own nor have documents to properties required by banks as security. Thus, most of the members of RBAP adopt the cash-flow-based lending approach that looks into the income and expenses of a household prior to approving a loan application without collateral.

4.2.2 Production-cost-based lending

Loan amount is calculated based on an assessment of the costs of farm production. Loans are approved based on a farm production plan submitted by the applicant, tempered by the loan officer's judgment and a standard per hectare production budget. Principal and interest are collected after harvest. Production-cost-based lending is advantageous since it matches the cash flow needs of farmers, that is by providing credit when costs are incurred and requiring repayment when income is made. Lenders ensure that loan proceeds are used according to the farm plan by disbursing a portion of the loan in-kind. More intensive monitoring of loan utilization and farming activities is also done.

There is high risk in using this lending style since most lenders prefer farmers who are also engaged in non-farm activities even if repayment depends largely on the crop harvest. Lenders conduct intensive monitoring and provide technical and post-harvest assistance to manage the credit risk. However, these activities require staff with specialized knowledge in agriculture and organization's capacity to extend non-financial services. The hands-on activities add costs to the lenders.

The People's Bank of Caraga provided loans to its existing clients using the production cost method. The loans are meant to complement a regular micro enterprise loan. It began offering agricultural micro loan as a response to the frequent diversion of regular loans for micro enterprises to agricultural activities. The bank is one of the respondents of the IPA study (2009).

LANDBANK has loan facilities for small farmers and fisher folks who are non-agrarian reform beneficiaries. One of two purposes of the loans is to finance the production costs of corn, high-value crops, livestock/poultry and fish as well as the costs of processing and trading them. The loans are granted through legal conduits and farmers' associations or cooperatives as a short term loan line or term loan. Payment may be quarterly, semi-annually or annually based on the project cash flow (www.landbank.com/AFFP).

4.2.3 Insurance provision and coverage

Insurance provision, particularly crop insurance, is very minimal. PCIC costs 5.5% to 6.5% of the loan principal amount and reimburses input costs up to a certain ceiling plus an optional 20% in the event of crop failure. Payout only covers a small portion of the loss from pests and natural calamities. Insurance market in the country is under-developed and can be difficult to construct insurance products which are accessible to poor clients and do not fall prey to moral hazard problems.

Weather-based crop insurance. The insurance policy payout benefits are based on objectively measured weather conditions, such as the amount of rainfall at a given time of year. This innovative approach has significant potential but offering weather-based insurance alone may not be sufficient. Studies on rainfall insurance products for farmers in Malawi and India show unexpectedly low uptake. In Malawi, taking credit with insurance is highly correlated with the cognitive ability of the clients. The concept of weather-triggered insurance is difficult for farmers to understand (Gine and Young, 2007). The Indian study on weather-based insurance reported the inability of farmers to understand the product as a major reason for not purchasing the insurance (Gine et al., 2008). These findings indicate that there is a need for careful testing of marketing strategies before embarking on any insurance scheme.

Weather-based crop insurance has not really taken off in the Philippines for some reasons perhaps like the ones cited in the preceding paragraph. An alternative that CARD MRI Insurance Agency (CAMIA) tested in six Philippine provinces in 2013 is the CARD Crop Assistance Program (CARD MRI Annual Report 2013). The program intends to address damaged agricultural business of CARD borrowers. The rate of typhoons in the areas covered by the test indicated the need for a product that will cover business interruptions due to disasters. Such a product is deemed important in protecting the cash flow of the client's family and the portfolio of the lending institution.

Health insurance. Providing useful health insurance for poor farmers is far from straightforward. Health insurance often falls prey to the problems of adverse selection and moral hazard. Adverse selection suggests that clients who know they will need health care are more likely to purchase insurance. On the other hand, moral hazard refers to clients engaging in riskier behavior or collecting payment for minor conditions that they would not normally seek for treatment. Both raises the cost of insurance and makes it unsustainable for MFIs or clients.

Health deductible insurance combined with some marketing and client education may help address the health risks facing agricultural lending clients. A high deductible insurance may help lower costs and avoid moral hazard, while still providing a life line to households dealing with serious illness or injury. For increase take-up, client education may help borrowers make good decisions for the families.

Client education on insurance products has been an integral component of the operations of the CARD Mutual Benefits Association (MBA) and CAMIA. The education session is done in the weekly meetings of a group of about 10-30 CARD members that is called a center. The account officers are trained to disseminate the information on new insurance products as well as update them on changes in the policies and procedures pertinent to availing of insurance products usually through loans.

Other than the CARD Crop Assistance Program, CAMIA also field-tested CARD Care in six of its provincial offices in 2013. CARD Care insures the profit loss of CARD hospitalized member borrowers by providing daily hospitalization income benefit.

4.2.4 Technical assistance

Much of the technical assistance that is provided appears to be relatively informal with credit officers providing advice during occasional farm visits. One way that must be encouraged is close linkage or partnership with local agriculture offices to provide experts advice.

ASKI Microfinance NGO and Paglaum Multi-purpose Cooperative seek technical assistance from municipal agricultural office regarding crop production technologies and problems as mentioned in the cases section of this paper.

The CARD Business Development Services Foundation Inc. (BDSFI) assists its sister financial institutions such as CARD Bank, Rizal (Tanay) Rural Bank, CARD SME Bank and CARD Inc. in providing technical assistance by a temporary engagement of consultants based on need. It also links the farmers to the agricultural offices of the farmers' towns. In the production of natural muscovado and coconut sugar, two of its flagship projects, CARD BDSFI definitely engaged outside technical support for the loan recipients (Navarro, 2013).

4.2.5 Input and output markets

Most often, farmers are not assisted by MFIs in input and output markets. Loans are disbursed in cash and farmers shop for their inputs. Loan repayment is accepted in cash such that the farmers process, transport and sell their products. There are models of marketing assistance scheme that can be adopted or modified to suit specific conditions by many MFIs engaged in agricultural microfinance.

Navarro (2012) reported the example of One Network Bank (ONB) in Mindanao in supporting farmers in the purchase of inputs and selling produce. Under its One Rice Program (ORP), ONB provided credit as seeds, fertilizers and pesticides. It engaged the Mindanao-based Davao del Sur Agro-Industrial Corporation (DASURAICOR) as the buyer of the rice produce as well as the marketing and collection agent of the ONB.

4.2.6 Management information system (MIS)

There is a need to develop or improved existing MIS for easy monitoring or reporting of the agricultural loan program. Considering the unique risks of agricultural loan, this will facilitate management of the program.

4.2.7 Product innovation

Agricultural microfinance can provide farmers with resources that allow them to make better decisions on investment and risk mitigation. Lending institutions should consider tailoring their financial products to the needs of farmers and extending non-financial assistance to them.

In listening to its member borrowers and allowing them participation in crafting microfinance policies and products, microfinance NGO CARD Inc. increased the loan ceiling for various loans and reduced the process for loan validation to fast track approval and release (CARD MRI Annual Report 2013).

CARD Inc. also intensified its small business loan (SBL) program for those who are ready to take it specifically the existing borrowers of the regular enterprise project loan and agricultural loan. The SBL loan is midway to micro loan and SME loan and supports small businesses that grow out of micro enterprises.

Beyond loans, CARD Inc. supports its members with education on a variety of need-based topics on business, health and life skills including disaster preparedness. It funds the health program of CARD MRI that engages medical workers and pharmacists to do community clinic and household visits and sell affordable and quality medicines. CARD Inc. has served about a million members with its integrated microfinance and social services program in 2013.

Repayment flexibility. Lenders should offer several options to tailor repayment schedules to better meet farmers' needs. Lump-sum payment or restructuring loans for flexibility in payment delays may be further assessed. Setting loan terms that match harvest time and sales could attract more creditworthy borrowers. Reasonable repayment flexibility encourages farmers to take loan and make better farm investments.

Easing credit constraints. Farmers borrow to ease their seasonal credit constraints. Two simple ways to help farmers smoothen consumption are commitment savings or increasing loan amount to cover production costs more completely. Commitment savings products allow clients to set a savings goal (e.g. pre-determined amount or date). This type of device helps those who have difficulty in managing their money plan better for the future. For agricultural loan clients who have difficulty saving after a harvest, commitment savings products can help them manage their seasonal cash flow.

The access to commitment savings account led to an increase in the decision-making power of women in the Philippines, resulting in a shift toward female-oriented durable goods purchased in the household (Ashraf et al., 2010).

Increased loan amount. Lenders can ease the credit constraint faced by farmers during the growing season by increasing the standard amount of loans to fully compensate for anticipated production costs. For cash flow lenders, this could mean shifting partially or entirely to a production-cost-based system, which may bring increased risk of default and incur short run costs in switching loan processes within the MFI.

4.2.8 Diversification

Diversification includes transitioning to more profitable crops such as those that are more suited to the land or which command better price in the export markets. MFIs, NGOs and government actors interested in improving the welfare of rural households need to focus on other strategies in addition to improving agricultural lending. One approach is to provide large one-time loans for capital investments or asset build-up that will increase farm productivity.

An example is loan to purchase a mechanical dryer that can be rented to other farmers to supplement income from crop sales. ASKI has funded or served as loan conduit for the purchase of farm tractors and mechanical threshers to farmer cooperatives that it helped organized (ASKI's Rodolfo Padua, personal communication, 2014). The farm equipment was lent to farmer members for a fee that went to payment of the asset loan.

Other organizations may help households transition entirely from agricultural activities to other enterprises through entrepreneurship training, start-up loans for micro enterprises or savings programs.

4.3 Other Solutions

John J. Carroll Institute on Church and Social Issues (undated) realized the importance of reaching out to the poor farmer and fisher sectors. Engaging in microfinance for agriculture entails more risk due to the uncontrollable factors of natural calamities and market price movements. The farmer or fisher clients of MFIs need to have some other sources of income as buffer to guarantee repayment. A combination of income sources from agricultural and non-agricultural activities would allow farmers and fishers to cover their regular expenses including debt repayment. It was also suggested that the farmers and fishers practiced more business sense to ensure profitability of projects.

On the other hand, the MFIs can be more flexible with its policies and practices for agricultural microfinance. For instance, repayments may be scheduled whenever income is earned from either primary or secondary sources vs. microfinance common scheme of weekly payment. In terms of loan amounts, the MFIs may decide to confine its microfinance operations to PhP50,000 and below. Once the loans are released, the MFIs need to follow through by conducting more intensive monitoring of agri-microfinance accounts. The borrower's character or creditworthiness to receive an agri-microfinance loan is worth noting especially with the complexities in agriculture. Value formation and organizing sessions in this case may be crucial interventions to increase the probability of success.

Assistance from the government and private sectors from the production to marketing phases becomes crucial. John J. Caroll Institute on Church and Social Issue recommended the following in its monograph:

4.3.1 Feasible Schemes for Microfinance and Agriculture

- Granting of small loan amounts (e.g. up to PhP50,000). This amount was determined based on production need, the capacity of the borrowers to pay and policy of fund providers or wholesalers.
- Loans were granted mostly for working capital, however, financing of fixed capital such as a small motor boat and fishing gears for the fisher or a thresher for the farmer may be considered as long as these require small amounts.
- Timely release of loans in light of the seasonal nature of agriculture. Granting of loans must coincide with the cropping cycle. If the release of the loans is delayed, the farmer does not have a choice but to borrow from the usual lenders who charge exorbitant interest rates.
- Flexible terms of payment taking the harvest period in consideration. Among the crops, coconut has the shortest harvest period at 1.5 months while sugar is harvested in eight months. Instead of immediately requiring the weekly or monthly payment for the loan, it may be appropriate to grant a grace period before the more regular payments take effect, or altogether allow lump sum payment.

- Maintain the policy of unsecured loans since many of the clients are asset-less, except for cases where fixed assets secured through the project can be assigned to the lender until the loan is fully paid.

4.3.2 Adoption of Wider or Holistic Approaches

Agriculture concerns a wide range of activities from the time the farmer plants the crop or the fisher goes out into the sea until his or her produce reaches the consumer. Meantime, other income opportunities abound in the areas.

- Consider financing the entire value chain or parts of it.
- Support the livelihood activities of family members to increase household income. In this way, the farmer is not the only one getting financial assistance and providing for the family.
- Finance intercropping or diversified farming. Benefits include maximization of the land, additional income for the farm household and safety nets in case a calamity strikes.
- Explore other viable projects requiring financing. As the tree of life, the coconut plant offers vast potentials for products which require modest financing.
- Alternative livelihood for the fisher, on the other hand, will help protect the seas.

4.3.3 Government Support in Terms of Policies

Adequate policies have been promulgated, but have yet to be better implemented. Additional meaningful policies are nonetheless still recommended to support agriculture and fisheries:

- Price regulation to protect both the producer and the consumer. Good prices of produce should translate to more income for the producer thereby increasing his/her capacity to sufficiently expend all his/her costs pertaining to the household and the business, including payment of financial obligations
- Lower cost of money for agriculture financing. This would keep the interest rates of the MFIs down, and consequently mean lower and more affordable interest rates passed on to microfinance clients.
- Strengthening of crop insurance. Insurance against natural calamities, which is expected of engaging in agricultural activities, would protect both the MFI lender and the borrower. The lender incurs minimal loss from these uncontrollable circumstances hence may be more encouraged to increase its exposure to the poor agricultural sectors. On the other hand, the borrower will not be burdened further from unpaid loans caused by natural occurrences.

4.3.4 Government and Private Sector Assistance

With the limited resources of the farmers and the fishers, assistance in programs is also sought not only from the government but from private organizations also. These may include:

- Linking of farmer and fishers cooperatives or organizations to big suppliers to lower the prices of inputs and other supplies
- Marketing assistance through infrastructure development or improvement. Agricultural microfinance clients usually come from the interior vilages where roads, bridges and pathways are not in good condition. A better road network will facilitate the transport of the goods from these remote areas to the town proper.
- Enhancement of technical skills to train and increase capacity of the farmers and the fishers in coming up with processed and value-added products, and eventually link them to markets. All products – rice, sugar, coconut and fish – have the potential to be processed into high-value goods with a ready market.

- More meaningful implementation of the policies and programs such as the Agri-Agra Law, the People's Development Trust Fund to fund trainings, marketing assistance, research and extension activities. This should mean more funds, training and overall business opportunities for the microfinance clients.

4.4 Government Support Programs

Note: Some information on these programs (e.g. lessons, issues, potential for replication or scaling up) would be useful.

Passed in 1997, the Agriculture and Fisheries Modernization Act (AFMA) is a comprehensive blueprint for agriculture modernization and rural development. It aims to transform the Philippine rural economy through the introduction of modern technology, increasing availability of rural financing, increasing investments in agricultural infrastructure, improving the links between farmers and markets, both domestic and international, and others.

According to a policy brief of the Philippine Senate Economic Planning Office (SEPO) in February 2009, "Eleven years after the passage of the Agriculture and Fisheries Modernization Act (AFMA), Philippine agriculture is still facing much of the same problems it did prior to the existence of the said law. The lack of financial support for the AFMA, as well the inappropriate allocation of meager resources has contributed significantly to the current situation."

AFMA has mandated the termination of all government directed credit programs to the agriculture sector while consolidating all outstanding loan funds into the Agro-industry Modernization Credit and Financing Program (AMCFP). Government financial institutions were then tasked to implement the AMCFP as a wholesale lending program to private financial institutions and microfinance institutions, which in turn would re-lend the funds to small farmers and the rural poor.

Initial assessments of the credit policy reforms introduced by the AFMA as well as the mainstreaming of microfinance principles (through the adoption of a National Strategy for Microfinance) have shown some promise, bringing about greater private sector participation in rural credit markets while increasing the access of small farmers to formal financing (SEPO, 2009).

The following items describe four government support programs that came after the enactment of AFMA.

4.4.1 AFMP

The program is one of the lending programs under the Agro-industry Modernization Credit and Financing Program (AMCFP) – the government's umbrella financing program for agriculture and fisheries. The program aims to improve the incomes of small farm and fishing households through improved access to financial services that can help enable them to diversify income sources and/or improve the profitability of their main agricultural or fishing activities.

Under the AFMP, the Department of Agriculture (DA) provides technical advice as to the appropriate technologies and production costs and returns of farm/fishing activities to be given assistance by the program.

The Land Bank of the Philippines (LBP) provides portfolio re-discounting, working capital and term loans to qualified borrower organizations/institutions. Borrower organizations/institutions may be (a) organizations with farmer/fisher folk members that will utilize the credit funds to finance value chain activities of small farmers/fisher folks or (b) credit retailers that will extend agri-fishery microfinance loans to small farming/fishing households.

The Agricultural Credit Policy Council (ACPC) reviews, approves and conducts validation of loans charged against the DA-ACPC Agri Micro Fund.

4.4.2 Agri-Microfinance Program (AMP) for Small Farmers and Fisher Folk and their Households

The program is a joint program of the Agricultural Credit Policy Council (ACPC) and the People's Credit and Finance Corporation (PCFC) for the provision of credit to qualified borrower organizations for re-lending to small farmers and fisher folk households and groups/organizations.

It was established by virtue of ACPC Resolution No. 2, Series of 2009 as one of the programs under the Agro-industry Modernization Credit and Financing Program (AMCFP) – the government's umbrella credit program for agriculture and fisheries. It aims to reduce poverty and improve the quality of life of marginalized farmers and fisher folk by financing agricultural projects and activities that will increase their productivity and incomes.

Under the AMP, PCFC administers the provision of credit to eligible borrowing organizations. For PCFC-accredited banks and MFIs (Type 1 organizations/institutions), PCFC processes, evaluates and approves the loan application. For non-bank MFIs that pass the accreditation criteria of PCFC for Type 1 organizations/institutions, the ACPC-PCFC Program Management Committee reviews the loan application for endorsement to PCFC's approving authority. Loans charged against the AMP Fund are subject to review, approval and validation by ACPC.

The borrower-organizations either extend (1) agri-fishery microfinance loans to eligible borrowers or (2) loans for value-adding and marketing activities of eligible small farmers and fisher folk groups/ organizations.

4.4.3 Cooperative Bank Agriculture Lending Program (CBAP)

The program aims to expand lending of cooperative banks and increase their outreach to smallholders in the agriculture and fishery sectors. Eligible projects include production of hybrid rice and certified seeds, corn production, fisheries/aquaculture production and marketing and livestock production.

4.4.4 Direct Market Linkage (DML) Program

The program aims to (1) provide financing assistance in the form of farm inputs to selected farmer beneficiary groups, cooperatives as well as consumer groups/associations for production; (2) provide institution capability training to improve and strengthen organizational management and business development of the farmer trading groups; and (3) adopt contract growing scheme that will buy back the produce of farmers at market price net of the loans they have availed.

4.5 Three Cases

Following are three cases of agricultural microfinance programs of deliberately chosen microfinance-oriented rural bank, a microfinance NGO and a microfinance cooperative. The bank operates nationwide, the NGO in northern Philippines and the cooperative in Southern Philippines. The cooperative is young relative to the two others in the cases.

The cases provide examples of the application of some recommended approaches cited in the preceding sections such as the use of production-cost-based lending, provision of technical and marketing assistance and loan for the acquisition of farm assets.

4.5.1 CARD Bank

CARD Bank is a member of the CARD group of companies called the CARD Mutually Reinforcing Institutions that has two microfinance-oriented rural banks, an SME bank, a microfinance NGO, a Mutual Benefits Association, an insurance agency and other social enterprises that make up to 14 members to date. CARD stands for Center for Agriculture and Rural Development. CARD Bank has 56 branches nationwide with micro banking offices (MBO) and a head office in San Pablo City, Laguna. Established in 1997, it offers a variety of loan and savings products and remittances services to its members and the general public.

Growth of agri-micro program. CARD Bank started its micro-agri program with 748 borrowers from five branches and loan disbursed amounting to USD250,493 in 2009. There are 55,785 borrowers with a total loan of USD8.4M as of end of August 2014. The loan supports all kinds of agricultural activities including crop production, livestock, poultry, piggery and food processing.

The no-collateral loan ranges from an initial USD44.8 that incrementally increases in succeeding loan cycles depending on repayment, attendance to group meetings, project progress and attitude of farmers towards the staff, fellow members and to the entire organization in general including its policies and regulations. Repayment period varies from 4 weeks to 25 weeks depending on the project and the preference of the borrower. The borrower may opt for weekly, semi-monthly, monthly and lump sum payment of the borrowed money. Interest rate follows that of the market, which is about 3% per month including upfront charges and loan insurance.

Technical, training and marketing assistance is provided by the CARD Business Development Services Foundation, Inc. (BDSFI), a sister company of CARD Bank. Philippine banks are not allowed to do services other than loan and savings services. CARD BDSFI assist in the purchase of inputs through its partner suppliers and market directly or indirectly rice and muscovado (raw natural sugar) through its partner marketing firms. CARD BDSFI sells regularly red pepper and calamansi (a variety of lemon) produced by selected farmers to Jollibee, the largest food chain in the Philippines.

Challenges. With a repayment rate of 93% and a controlled 2% PAR, the program appears to be going well. The high payment default that the program experienced initially was addressed after an assessment of the lump sum payment scheme. The current positive performance is attributed to the discipline of the staff in frequent communication with the borrowers, immediate follow-up of late payment, conference with defaulters and maintaining good interpersonal relations with the borrowers.

4.5.2 ASKI

ASKI is the acronym for Alalay sa Kaunlaran, Inc., the Filipino name of the microfinance NGO in Cabanatuan City, Nueva Ecija in the northern part of the Philippines. The literal English translation of the name is Support for Development, Inc. Established in 1986, ASKI is a non-stock non-profit organization committed to the development of micro, small and medium enterprises and the delivery of social services. The ASKI Group of Companies consists of 10 business units (independent legal entities), each performing a role that contributes to the overall mission of the organization. As a group, it offers a variety of loan products and services through its different programs (self-help group loan, individual loan, agricultural loan, housing loan, education loan, and Overseas Filipino Workers or OFW programs).

Growth of agricultural microfinance program. The Alalay sa Magsasaka Program (Support to Farmers Program) or AMP started with 832 farmers and USD224,215.2 in total loan. There are 24,576 farmers with USD12.9M in total loan as of end of July 2014. The loan supports crop production, piggery and poultry and acquisition of farm machineries.

Photo 1. CARD Bank farmer beneficiary shows her roses ready for harvest. The bank supports ornamental flower production in the cool hills of Baguio City, the summer capital of the Philippines.

Loan amount depends on actual cost per farm plan submitted as a requirement of the loan. The interest rate is 3% per month with compulsory life and crop insurance at 3% of the loan amount deducted at the time of loan release. The loan term is 4-10 months depending on the farming project. ASKI adopts lump sum payment of principal, interest and pledged savings that is 15% of the loan amount.

ASKI helps farmer borrowers of a community to organize themselves into cooperatives through their Community Development Group. This also makes it easy for them to disbursed loan usually through the farmer leader. The farmers receive technical, infrastructure, marketing and training support from ASKI usually by linking them with appropriate local government unit or agency and with traders. Technically for example, the Philippine Rice Research Institute has provided the ASKI farmer beneficiaries with an electronic system called the Rice Manager that informs farmers on ways to address various rice production problems. On the marketing aspect, ASKI has linked its onion growers to the partnership of the local government, Catholic Relief Services and Jollibee (the largest food chain in the Philippines). Jollibee buys directly the onions from the farmer beneficiaries of ASKI.

Challenges. ASKI faces loan delinquency problems resulting from natural disasters. It is limited by knowledge on farming practices, low market price of produce, and inadequate fund for capacity building of staff and farmers. It also faces an increasing PAR rate and fraud committed by its staff.

4.5.3 Paglaum Multi-Purpose Cooperative (PMPC)

PMPC is more popularly known as Paglaum, a Visayan word that means hope, in the north-eastern part of Mindanao where it operates. Established in 1992, it offers loans, insurances and other social services with special attention to persons with disabilities and vulnerable groups. It operates a hostel that also serves as its training venue in its headquarters in Plaridel, Misamis Occidental.

Growth of agricultural microfinance program. The agricultural loan program that support mainly rice production started with 75 farmer members of the cooperative in 2011 with a total loan disbursed amounting to USD36,691. There are 859 members with USD1.3M loan as of the end of August 2014.

Photo 2. An onion sorting and drying facility built for a farmer cooperative in San Jose City, Nueva Ecija through a grant from LGU and Catholic Relief Services that was facilitated by ASKI.

A farmer can avail up to a maximum USD3,363.2 of the no-collateral loan from PMPC. It adopts a cash-flow based amortization for the cash outlay and lump sum payment for the inputs upon sale of rice. The loan requires micro-insurance and crop insurance. PMPC subscribes to the Agricultural Guarantee Fund Program of the Philippine government.

PMPC provides technical and marketing support to the farmer members. It links its farmers with the local agriculture office for rice production advice. It has a high repayment rate at 99%.

Challenges. Unpredictable weather conditions is a normal risk that PMPC and its farmer members must confront in the rice production venture that may likely expand to other crops in the immediate future. It is now testing multiple cropping and intercropping to spread and mitigate the risk.

PMPC admits to having limited field staff to monitor and market produce. The field operations supervisor who was interviewed for this study has recently replaced a former staff member who was dismissed for fraud. PMPC also experiences late loan releases and unclaimed insurance due to improper documentation.

4.6 Concluding Remarks

The review of the state of microfinance in the Philippines shows that there have already been actions at looking deeper into the agricultural microfinance situation in the Philippines. Various stakeholders have shown keen interest in the subject because it appears that the farming and fishing sectors have been deliberately ignored in the matter of financing and technical support. This is sad considering that most of the marginalized and the poor people who needed financing for their livelihood belong to these sectors.

Photo 3. Paglaum farmer beneficiary pose in front of her irrigated rice farm getting ready for planting.

Remedies that have potential for widespread application are available from the private and public sectors. It is just a matter of leadership initiative on the part of the microfinance institution to make the remedies work knowing that delays in government implementation of programs that addresses the needs of the small farmers and fishers are common.

With the causes of default in agricultural microfinance repayment and possible solutions clearly identified, agricultural microfinance will likely expand sooner than expected. All stakeholders must get together to address the issues and take part based on their strengths.

More research geared towards improving the agricultural microfinance system and approaches must be undertaken with the objective of reducing fear of risks by financing institutions. There is a need for a comprehensive data on the statistics of MFIs in the Philippines especially those offering agricultural microfinance.

Part 7

Sri Lanka Microfinance in Agriculture

Samadanie Kiriwandeniya

1. Introduction

In South Asia, the vast majority of poor are predominantly agrarian communities, residing in rural areas. They are engaged in livelihoods that yield poor income and are not competitive to withstand global market pressure. Improving agricultural productivity has been recognized as one of the key factors that can improve their income and add value to the quality of life of these families.

When it comes to productivity enhancement, the issue of small holding subsistence agriculture has been recognized as a major impediment in South Asia. The returns gained from the small plots of land are marginal and barely adequate to meet even the most immediate needs of poor families. Insufficient incomes limit the ability of farmers to invest in value addition to their production process, curtailing any possible livelihood improvement. Moreover, when income is insufficient to meet the basic needs of their lives, the poor families cut down their expenses mostly from investments for future shocks such as children's education, risk management, and in the worst cases in nutrients and medicine, making them further vulnerable to life and livelihoods related shocks.

Accessing finance has been recognized as a critical aspect in breaking down this vicious cycle and enabling rural farmers plan adding value to the quality of their lives and livelihoods. Finance (Credit) is another source of income to rural households that can a) add value to the production of their small plots of land, b) diversify income generation sources of poor households through micro-enterprises, and c) enable poor to bear critical costs such as medicine, festival expenses or education expenses of their children without compromising investments for future. However formal financial institutions have not been able to successfully cater to this need. In many cases, unless it was made mandatory by the regulator to have a priority sector lending to agriculture, formal financial institutions in South Asia has often shown reluctance to engage in agriculture sector due to high risk associated with it, and the insufficient profits they gained to cover the costs incurred.

Microfinance around the world has been identified as one of the most effective strategies to reach poor and provide them access to finance, especially in a context where formal finance is not prepared and do not have efficient mechanisms to do so. However, microfinance in the modern context has been largely acknowledged as a tool to promote off farm enterprises to provide supplementary income for rural families, and encourage non-agriculture sector to reduce mismatch in income and expenses of poor families.

This paper examines the role of microfinance in ensuring the provision of sustainable access to financial services for smallholder farmers and other stakeholders in Sri Lanka. The paper explores influencing factors that contribute and limit the efficient implementation of microfinance in agriculture by financial institutions, diverse processes, strategies and tools used in the provision, delivery and access of microfinance by the different stakeholders in rural and agricultural development. The paper will present some recommendations to address the challenges faced by the financial institutions when delivering agriculture finance.

The assessment has been prepared based on the secondary information available. Some of the key documents reviewed were the policy documents of the government pertaining to agriculture development, the country strategy reports and evaluation reports of key investors such as the World Bank and Asian Development Bank, the annual reports of the Central Bank of Sri Lanka, the annual reports of the Lanka Microfinance Practitioners Association (LMPA), and several evaluation and assessment reports on microfinance performance by CGAP and GTZ Promis.

The first section of the paper examines the current position of agriculture sector in Sri Lanka, its contribution to national economy and the issues related to the development of agriculture sector. The second section looks into finance delivery systems in Sri Lanka, who does what and the challenges they face, giving a particular emphasis to the role of microfinance. Third sector will touch upon the gaps in agriculture financing and the recommendations.

2. Agriculture, Productivity Rural Poverty Reduction

2.1 Context

Sri Lanka is an island located 32 Km from the Southern tip of Indian subcontinent, with a maritime frontier extending to 517,400 square Km of the Indian ocean. The maximum length of Sri Lanka is 432 Km from North to South and the maximum width is 224 Km from West to East. The total land area of the country is 65,610 square Km of which 2,905 square Km contain inland water. The country is home to 21 million people and enjoy the highest human development index in the region (Please see the Table 41).

Being a tropical island, Sri Lanka undergoes a sub-tropical climatic condition, marked by an average temperature at around 27 C in most parts of the country, and a well distributed rainwater pattern with two major monsoons, enabling a year round cultivation. The temperature varies from 17 C to 26 C in the hills due to the high elevation, giving an opportunity for Sri Lanka, to produce the finest quality tea and different types of fruits and vegetables.

The country is divided into two main zones, based on the rain patterns i.e., the wet zone and the dry zone. The wet zone receives rain primarily from South West Monsoon that falls from May to October while the dry zone receives rain from North East monsoon from November to April. While wet zone agriculture is heavily rainwater dependent, dry zone agriculture depends largely on the irrigation schemes.

Table 41. Sri Lanka socio-economic indices

Description	Country's position
Poverty Rate (head count index)	6.5%
Literacy rate	95.6%
Life expectancy	75.1 years
Unemployment rate	4.4%
Income distribution (Gini coefficient of household income)	0.48
Per-capita income	3,191 US$
Human Development Index	0.715
HDI rank among 187 countries	92

Rural sector in Sri Lanka is geographically demarcated as the area outside the boundaries of local administrative authorities of municipal councils and urban councils. These local authorities are not permanent boundaries and vary from time to time, with the improvement of infrastructure and expansion of urban way of living, as defined by Urban Development Authority (Wickramasinghe 2010). However, according to the available statistics and information, rural Sri Lanka represents almost 98% of the land area. Out of the total population, which is 21 million, 80% come from rural sector which produce 89% of countries labour force (ibid) one can therefore conclude that the development of the economy of Sri Lanka involves a systematic productivity improvement of its rural economy.

Agriculture has been the way of life of majority of Sri Lankan rural people. More than 70% of country's total population, who reside in rural areas, depend on agriculture directly or indirectly (Padmajani 2010). Improving the productivity of agriculture sector has therefore been the primary goal related to rural development since independence in 1948 until early 1980s.

Sri Lankan agriculture sector is predominantly cultivation based. The sector is divided into two main subsectors, that is, domestic sector and plantation sector. The domestic agricultural sector which is synonymous with the rural sector, is involved primarily with food crops such as cereals, legumes, field crops, fruits and vegetables. The livestock sector which is part of the domestic sector contributes 1% of the total contribution of the GDP. The Plantation Sector which constitutes tea, rubber, coconut, sugarcane and minor export crops such as cinnamon, cardamom, and cocoa contributes 3% of the GDP (The Department of National Planning: Ministry of Finance and Planning 2010).

Rice is the staple food of the country among all ethnicities, and therefore the main source of calorie provider. Being self-sufficient in rice is often seen as an indicator of the success and progress of the country. Paddy cultivation therefore, has been recognized as the most important pursuit in Sri Lankan domestic agriculture. Paddy occupies the largest land area under agriculture, which is 40% of the total permanent agriculture land holding. Coconut, tea and rubber occupy 39%, while horticulture, export crops and all other field crops occupy the rest of the land area (ibid).

2.2 Contribution of agriculture sector to national economy

During the colonial regime, Sri Lanka's once flourishing domestic agriculture was severely destroyed leaving the farmers who were engaged in paddy cultivation, in chronic poverty conditions. Colonial government promoted cash crop cultivation as the major revenue of the country while domestic agriculture, on which more than 80% of the populations livelihoods depended, were given very little attention.

When the British left Sri Lanka after ruling for 300 years the country was left with an abandoned and almost destroyed domestic agriculture and a population with a high incidence of poverty and malnutrition. All governments that came to power after independence have considered poverty alleviation as a primary objective. Until 1980, developing domestic agriculture sector had been considered as the primary strategy for this.

Since independence, all successive governments gave pivotal attention to improve the productivity of the agriculture sector and reduce high poverty and malnutrition in rural Sri Lanka. The focus had been to achieve self-sufficiency, primarily in rice, and also improve production of other crops. Massive amount of public funds were invested for this purpose in the following forms:

a) Development of irrigation systems and other infrastructure accompanied by large human settlements schemes.
b) Improving extension systems and national agricultural research,
c) Establishing state mechanisms to purchase produce and to facilitate distribution,
d) Provision of agro related inputs such as seeds, fertilizer and other materials and
e) Improve awareness of farmers related to new technologies and market (Wijetunga and Abesekara; 2010)
f) Providing farmers access to subsidized credit schemes through the Central Bank refinance arrangements.

Despite these investments, agriculture sector has remained stagnant, and its contribution to countries GDP remains low.

Even today although the sector employs 29.7% of the total labour force, and 70% of the population rely on agro related livelihoods, the direct contribution of the sector to GDP remains at 11.2% while industry and service sector has contributed 31.1% and 58.1% respectively (Central Bank of Sri Lanka 2012). A comparatively analysis of data in 12 countries revealed that Sri Lanka's productivity in agriculture against the credit investment is strikingly low (Hernandez 2014).

The Department of National Planning: Ministry of Finance and Planning (2010) has pointed out that about 44% of the agricultural land, which has high potential for development is sparsely used and the output per hectare or per an agricultural worker is significantly lower than that of the other Asian countries (See Table 42). The sector has not been able to cater even to the basic food demand of the country causing a continuous heavy outflow of foreign exchange resources to import net food items. For example in 2009, the country imported 30 billion worth milk products for local consumption Local dairy industry produce only 15% of milk consumed in Sri Lanka and meets only 33% of national consumption of dairy products.

Table 42. Productivity of Selected Agricultural Crops (kg/ha)

Commodity	Sri Lanka	China	India	Indonesia	Pakistan	Thailand	Vietnam
Rice	3,394	6,170	3,006	4,517	2,988	2,676	4,694
Maize	1,103	4,964	1,874	3,241	2,319	3,656	3,333
Groundnut	585	2,904	975	2,013	971	1,512	1,678
Soybean	1,049	1,781	865	1,270	1,250	1,356	1,317
Potatoes	16,543	15,462	18,555	18,555	15,051	12,054	13,159
Eggplant	6,882	18,631	16,146	7,034	10,556	5,826	–
Cabbage	13,889	18,743	21,330	20,334	14,856	11,011	17,972
Chilies	2,888	19,160	9,182	3,808	–	14,000	–
Tomatoes	7,593	26,121	14,789	12,678	9,964	26,095	–
Sugarcane	56,966	65,376	62,731	69,710	48,378	68,862	54,215
Pepper	623	1,530	237	718	–	3,093	1,733
Tea	1,450	863	1,690	1,405	–	295	1,011
Coconut	4,271	10,099	4,809	6,013	4,000	4,327	6,804
Rubber	798	1,292	1,569	896	–	1,623	876

Source: World Bank 2007

There is an abundance of literature to explain the reasons for the low productivity of agriculture sector in Sri Lanka. Underdeveloped infrastructure such as roads, electricity, and processing systems, limited application of modern technology, restricted market information available for farmers, highly vulnerable production processes, inadequate or inappropriate credit flows, low risk management systems, and politicized markets are some of the few reasons identified. The lack of long term vision and consistency and coherence in the agriculture policy of the government(s) of Sri Lanka, has been recognized as the main impediment to driving the sector forward. It has been claimed that the policy making related to agriculture has not been made with consideration to technical aspects, rather, they have been influenced by political and social pressure[1] (Herath 2007).

Current government policy on agriculture focus on regionally equitable economic growth, increasing domestic food production and food security, reduce import expenditure and promote export oriented agro-based industries (CBSL 2013; Gunawardena 2008). Attention has been given to improving value addition of emerging sectors and promoting rapid growth in sectors operating below potential. Introduction of export oriented rice varieties, subsidy scheme for replanting and new planting of tea, modernizing tea factories, cultivating rubber and coconut in non traditional areas, importing high quality breeds of cows, facilities to improve deep sea fishing, and high tariff on import food commodities are some of the measures taken to improve the agricultural productivity (Central Bank 2012).

[1] Fertilizer subsidy has been taken as an example to elaborate this. Fertilizer subsidy and seed subsidy are two main aspects that have been prominent in each election mandate. Yet it has been pointed out elsewhere that fertilizer price has less effect on increasing productivity in commercial agriculture when compared against the pricing policy. Yet despite excessive burden on treasury financing, fertilizer subsidy continues.

3. Financing Agriculture in Sri Lanka

3.1 Agriculture and poverty

Low access to finance has been identified across the globe as one of the main reasons for poverty. Inclusive finance therefore has been identified as a main strategy to reduce poverty.

In Sri Lanka, over 58% adults within the lowest to middle income bracket have access to formal banking in Sri Lanka (Global Findex 2012). Getting Finance in South Asia 2010 report maintains that the overall access to finance in Sri Lanka is the highest in the region. The Central Bank of Sri Lanka (2012) confirms the existence of a widely distributed bank branch network across the country, and an additional 6,000 financial service outlets in the form of extension offices, pawn centres, and student savings units (Please see Table 2 for details). In addition to these financial outlets that are under the scrutiny of the CBSL, the reported 10,000 microfinance institutions provide valuable financial services to the community. However access to finance for agriculture development is still considered inadequate (Department of National Planning 2010). It has been observed that informal arrangement with the traders, agro chemical dealers are still quite common in Sri Lanka. The following section examines the nature of agriculture financing in Sri Lanka, diverse processes, strategies and tools used in the provision, delivery and access by the different stakeholders in rural and agricultural development. It also examines some of the challenges.

The finance for agriculture in Sri Lanka takes three distinct forms. Formal/institutional financing, informal/non-institutional financing and semi formal/semi institutional financing (Sanderatne 2002). Financial intermediation in rural Sri Lanka through these forms are both monitory or non monitory.

Analyzing rural agricultural credit in South Asia, Sandaratne (2002) has pointed out that informal financing in rural markets in South Asia is quite complex and diverse and takes many different forms of financial arrangements, tied to land, labour and marketing. Informal finance in Sri Lanka includes finance that is secured from commercial money lenders, informally arranged voluntary savings and credit groups, rotation savings and credit arrangements – "Seettu" (ROSCAS), and friends and relatives as well as trade agreements and credit arrangements against future produce with agro chemical companies and traders. Informal finance have been very creative in attracting rural poor. Even today, 60 years after the introduction of formal financing to rural Sri Lanka, and with more than 80% of the population having access to finance, informal financial arrangements play a considerable role in rural agriculture.

Semiformal finance in Sri Lankan can be understood as those that are in a transition from informal to formal systems. NGO funded self-help groups, small community based groups that are formed by banks to deliver refinance or state development assistance, voluntary self-help groups that are in the process of converting themselves into formal credit co-operatives, and microfinance institutions can be recognized in this category. These types of finance facilities have less stringent conditions, know their clients, and have low cost monitory systems. They often have no legal recognition as financial institutions, but are formally managed by the implementing agencies. Most of them however have sustainability issues due to their loose structures, limited external funding sources, limited market competitiveness and short term objectives. However if these semiformal entities upgrade their systems and technical knowhow, increase their capital and gain formal recognition over a period of time, they can become excellent mechanisms to reach large volumes of poor and link them to formal markets, as is the case in formalized microfinance institutions, such as Grameen Bank and BRAC in Bangladesh and card bank in the Philippines, and SANASA in Sri Lanka.

Formal agriculture and rural financing in Sri Lanka includes finance directed by banks and regularized non-banking institutions and public funds channeled through states institutions such as Samurdhi authority. Public financing also includes refinance schemes channeled through the bank network by Central Bank of Sri Lanka and non-monitory public fund transfers to provide fertilizer subsidy and seeds.

Table 43. Formal financial service providers in Sri Lanka*

Type of Organizations	Service provided
Commercial Banks	Corporate credit, trade finance consumer credit, Leasing, pawning, savings and term deposits.
Development Bank	SME and microfinance, leasing, pawning, refinance, savings and term deposits
License specialized banks	Micro and SME finance, pawning, channeling refinance, leasing
Non-Banking financial companies	Leasing, pawning, Micro and SME finance
Insurance companies	Life and general insurance
Thrift and Credit Co-operative Societies (SANASA societies)	Microfinance, Micro insurance, pawning, financial literacy training
Other co-operatives (fisheries co-operatives, Palmyrah Co-operatives etc.)	Microfinance, lobbying for the trade they are involved in with authorities
Samurdhi Banks	Channel state poverty funds, compulsory savings, micro-credit

Note: * Most of these organizations have a presence in rural areas of the country, it cannot be assumed that all of them provide agriculture credit.

In order to understand the challenges of formal agriculture credit in Sri Lanka, it is important to understand the history of agriculture financing.

The modern banking sector in Sri Lanka which began under the colonial government was characterized by conservative lending policies that restricted lending to non-plantation sector rural areas, who were mainly involved in domestic (subsistence) agriculture . The attention of the colonial regimes in relation to banking had been involved with the development of the plantation sector and urban financial markets. Trade finance and high value/low volume finance had been the trend maintained by the old established foreign and local banks as well as modern commercial banks. Domestic food production was not given a priority in formal financing and the agriculture, especially paddy and subsistence cultivation suffered heavily, creating massive rural poverty and malnourishment.

In 1936 the colonial government established the Bank of Ceylon, in order to cater to the financial needs of emerging businesses in urban areas. The rural farming communities that comprised of nearly 80% of the local population remained largely unbanked and the rural financial market in Sri Lanka had been operated mainly by the individual money lenders and small co-operative societies (Hume et al., 1996).

The governments that came to power after independence in Sri Lanka recognized the importance of improving agriculture productivity in order to address rural poverty. Each successive government took upon itself the responsibility of rehabilitating the sector. Financing agriculture production process was one of the major assistance directed in this regard. Agriculture Co-operatives were introduced in order to facilitate these assistance.

Until 1961, institutional credit for agriculture had been confined to small credit volumes channeled by the Department of Food Production, through Co-operative Agriculture Production and Sales Societies (CAPS). The credit was primarily for cultivation purposes, and purchase of agricultural machinery. With the successful credit disbursement of these societies and the recognition of the need to provide a more comprehensive service to small farmers, the state decided to amalgamate these societies who were operating in a smaller geographical location into one entity and created multipurpose co-operative societies.

While the multipurpose society was to cover many functions, and was able to reach a wider geographical area, they lost the direct representation and monitoring ability of their members. The loans channeled by these societies, subsequent to the amalgamation, dwindled due to high default rates, as they lacked capabilities to control and manage credit in a comprehensive manner. Most of the finance channeled through these societies were recognized largely as government grant schemes, and the policies associated with these schemes violated basic principles of corporate governance of credit co-operatives (Sanderatne 2002). Although thrift and credit co-operative societies(TCCS) were operating in villages, they were limited to a very small membership and played an insignificant role in rural market[2].

In early 1960s, having recognized the importance of expanding access of rural farmers to formal finance, the government nationalized the Bank of Ceylon and also established the Peoples Bank with the capital mobilized from the co-operative sector. The Central Bank of Sri Lanka started engaging in an interventionist role, to deepen financial intermediation further by providing several refinance schemes and credit guarantee scheme to farmers. Having recognized the limitations of lending through the reluctant commercial banks[3] and Co-operative Rural Banks whose default rates were increasing, in 1985, the government created Regional Rural Development Banks (RDBs) in order to specifically deliver subsidized loan schemes channeled by the Central Bank of Sri Lanka (Hume et al. 1996; Sanderatne 2002; LMFPA 2012).

Each successive government has been continuing these refinance schemes, having recognized that agriculture sector development is a critical aspect for the country's food security and economic stability. Even at present, Central Bank continues their refinance schemes, interest support schemes and credit supplementation schemes with the aim of increasing agro production and promoting regional development (Central Bank Annual Report 2012).

With respect to access to finance in rural areas it is fair to say that the government credit schemes implemented through the two largest commercial banks of the country and the government initiated co-operative network has been able to lay down a well-organized formal finance delivery network in Sri Lanka. However through this network, the banks deliver mainly subsidized finance or collect low cost savings that they channel to urban customers. The credit lines available for farmers, in addition to them being subsidized, are often tied heavily with political agendas of the ruling parties. This may have contributed to the restricted growth of rural financial market and the slow growth of the agricultural lending portfolio of the banking industry. Although private banks are operating in rural areas and provide access to finance for rural households, their products are mainly consumer oriented, and collateral based. Even 60 years after the introduction of formal finance in rural areas, the banking industry has not been able to develop an agricultural lending system that is market tested and market resilient and can help developing the productivity of the sector and graduate them from subsidy culture to a commercial platform.

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[2] With the government patronage been given to other co-operatives, TCCSs remained isolated and insignificant entities playing a marginal role as a village savings club maintained by philanthropers and few village elites, until they were revitalized in 1978, making the dawn of microfinance movement in Sri Lanka.

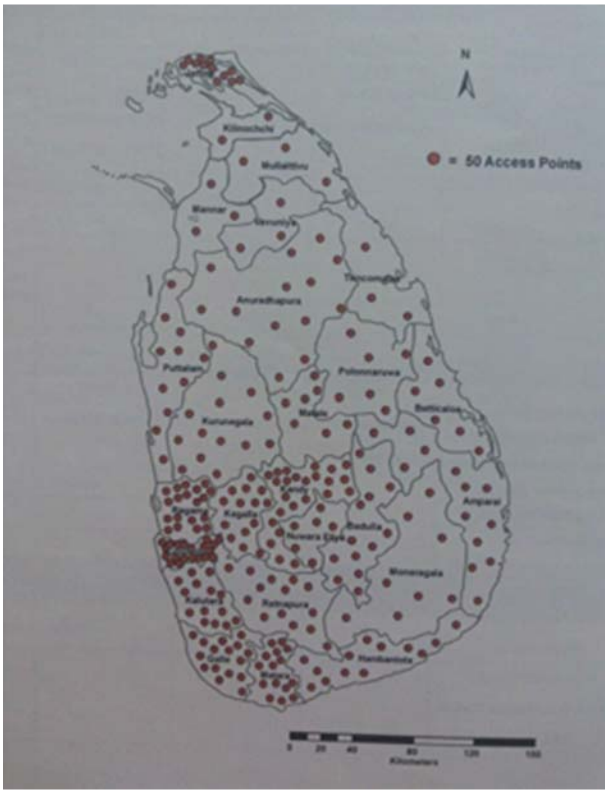
[3] Through Comprehensive Rural Credit Scheme (CRC) and New Comprehensive Rural Credit Scheme (NCRC) Peoples Bank and the Bank of Ceylon distributed approximately 40,000-50,000 loans per annum at cheap rates (3% per annum). In addition to the high cost involved in the small ticket sizes, it has been pointed out that these loan schemes were highly politicized and the recovery rates were quite dismal. In 1990-1991 the reported recovery rate for example was 45.1% (Hume et al. 1996; Central Bank 1992).

4. Overview of the Microfinance Sector in Sri Lanka

4.1 Introduction

The microfinance sector in Sri Lanka is vibrant and diverse. Licensed specialized banks who are involved predominantly with microfinance, non-banking financial institutions, microfinance institutions, Co-operative Rural Banks (CRBs), Thrift and Credit Co-operative Societies (SANASA), other co-operative societies such as fisheries societies, Samurdhi banks, and community based institutions that engage in microfinance service deliveries. These institutions have been able to provide access to 82.5% of the population and it has been pointed out that Sri Lankan financial market is largely a microfinance market, where 80% of the borrowing in 2008, had been below 100,000 Sri Lankan rupees (GTZ–Promis, 2008). Having such a diverse group of service providers it is not clear to demarcate what the parameter of the sector is. For this study, microfinance sector is considered as all financial institutions whose core business is microfinance. This includes financial institutions that are regulated by the Central Bank of Sri Lanka and those that are regulated by other acts as well as those institutions that operate in formal structures but are not regulated by any financial regulatory body. Non Government Organizations who run microfinance projects and companies who operate microfinance programmes fall into the later category.

Map 1. Geographical coverage of microfinance providers in Sri Lanka



Source: CGAP Country level Effectiveness and Accountability Review, 2006[4]

[4] Since the end of 30 year war in Sri Lanka in 2009 these numbers have increased in Eastern and Northern Provinces. The exact numbers however was not available for this research.

The exact number of non-banking institutions that provide microfinance in Sri Lanka is not clear due to the unavailability of accurate and updated data. The Central Bank of Sri Lanka reports that there are 16,500 microfinance organizations. However it is not clear how many of these registered societies are active providers of microfinance. The survey conducted by GTZ-Promis project in 2006/2007 reported the existence of approximately 10,000 microfinance delivery outlets island wide (Fernando et al. 2008).

These institutions are governed by different legal frameworks and they vary in terms of scale, focus, methodology, and governance styles. The models available to provide microfinance are both minimalistic and holistic[5]

4.2 Evolution of microfinance industry in Sri Lanka

Until late 1980s, agricultural productivity had been recognized as the main strategy identified by the state to address rural poverty and unemployment. However agriculture sector, due to many reasons, failed to produce expected result and country witnessed heavy unemployment and considerable poverty in rural sector.

The microfinance sector in Sri Lanka begins in 1978, with the revitalization of thrift and credit co-operative societies under the new brand name 'SANASA' at a time Sri Lanka changed from a closed economy and adopted an export oriented liberal economic policy.

For rural community to keep up with new economic changes and for rural youth and farmers to benefit and compete better in the market, capital was a critical need. However formal banking sector had not been catering to this need and poor rural communities lacked eligibility to access formal banking products. Revitalization of stagnant credit co-operative societies supported income generation of small farmers and small businesses, created a savings base in rural households, and built capital (both financial and social) that had been vital for local economic development. Improving financial literacy of members, empowering communities through social capital[6], diversifying and improving income generation of poor household, building savings and encouraging productive investments had been the main strategies adopted in this process. By 1987, with its 5215 registered autonomous, and networked thrift and credit co-operative network, SANASA had laid down a microfinancing network in Sri Lanka that that became prominent as a "rural financial institution meeting demands that other intermediaries could not" (Hume 1996 pp. 181). The decision of the state to partner with SANASA to channel funds to poor people to implement its flag ship "Million House Project" is a clear indicator of the role played by SANASA as a financial intermediary.

In 1988, with the World Bank funded Janasaviya Trust Fund, which was a flag ship poverty alleviation fund of the state, the focus of rural credit shifted from predominantly agriculture credit to small enterprises oriented credit directed towards economically active poor, instead of small farmers. In order to channel these subsidized finance to a bigger number of poor, the *praja naya niyamaka* program was introduced by the government in 1988, linking all types of informal finance intermediaries with formal finance. This encouraged a large number of informal money lenders, NGOs and other community based

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[5] The minimalistic models cater to a certain group of people (poor women, or poor farmers) with few branded products and services. Holistic models cater to a diverse clientele who have varying needs and therefore the services and products are also in a wide range. Minimalistic models (such as the famous Grameen model) are often highlighted globally by investors due to the flexibility of replication and scaling up that can facilitate bigger investment. However, it has not been empirically proved if such transplanting is effective to address the diverse needs and conditions of poor, and to mobilize them out of poverty in a durable manner.

[6] Social capital has been a critical contribution TCCS made to the rural development. There are many examples where village infrastructure needs were addressed by mobilizing social capital and supplementing gaps created by capital limitations. Shared labour to build roads, village clinics, donating a room of a house to run the office of the credit society, voluntary contribution of an educated youth to maintain books, motivation and savings mobilization through voluntary efforts of co-operative leaders are some examples of how social capital enables to undertake a development process.

organizations, to be linked with formal finance to provide finance for rural poor (Hume et al., 1996; Hettige 2002). JTF was later converted into National Development Trust Fund which was a key wholesale finance provider for the sector. This fund is currently operated under Sri Lanka savings bank (LMFPA 2012). In 1991, the central bank initiated small farmers and landless credit programme, widely known as ISURU project, which enabled further the strengthening the microfinance sector. ISURU project was significant because it was a commercial credit programme and channeled funds through NGOs who were implementing microfinance. The affiliation with JTF and ISURU project enabled most of the partnering organizations to build their capacities to engage in commercial microfinance (ibid). One prominent microfinance organization that was strengthened in these partnerships is SEEDS, the microfinance arm of Sarvodaya movement which is one of the pioneering NGOs in Sri Lanka (LMFPA 2012).

During 1990s there was a rapid increase of rural commercial credit, channeled by these NGOs and microfinance institutions. With the shift from subsidized cultivation credit to commercial credit given specifically for micro-enterprises, a clear shift was visible in rural credit in Sri Lanka.

While microfinance has been able to create additional income generation activities, they have not been involved much in agriculture credit. The credit portfolio analysis of the members of Lanka Microfinance Practitioners Association also reveal that other than thrift and credit co-operative societies, most microfinance institutions have invested very little in agriculture. Microfinance facilitated rural families who were engaged in financially unproductive cultivation cycles (especially paddy cultivation), to diversify their income through off farm enterprises. Most institutions have promoted small businesses such as catering services, beauty salons, small groceries, shoe making, rugs making, candle making, incense stick making, mosquito net making, and other similar cottage industries targeting the immediate local markets. The traditional microfinance lenders such as Thrift and Credit Co-operative Societies continued offering credit for farm based activities that are more commercially oriented, such as fruits cultivation, floriculture, ornamental fishery and spice cultivation, in addition to micro-enterprise loans.

It can be said that since 1985-2004 microfinance industry in Sri Lanka was mostly engaged in microcredit for small business promotions. Most of these organizations had their unique missions and operated with their selected donor assistance, under different regulatory structures. With the massive humanitarian assistance Sri Lanka received aftermath of Tsunami in 2004, and the prominent role played by microfinance organizations to deliver these assistance, microfinance industry in Sri Lanka gained recognition as a sector.

4.3 Policy making and supervision

Unlike in some other countries, irrespective of its vibrant presence, there is a regulatory vacuum in the microfinance sector, in Sri Lanka. Although there has been several consultations undertaken by the Central Bank of Sri Lanka to regulate the industry and several draft bills were prepared there still is not an act to take care of the growth and stability of the sector. The bill that was approved by cabinet in 2010 has been redrafted and has been approved by the Cabinet. Although it has not yet come to effect the following are the salient features of the proposed act.

The Act will be applicable to

1. A company registered under the company Act No. 7, not being a private company, an offshore company or an overseas company
2. A non-governmental organization registered under the Companies Act No. 7 of 2007 and the voluntary social service organizations or
3. A society registered under the society ordinance.

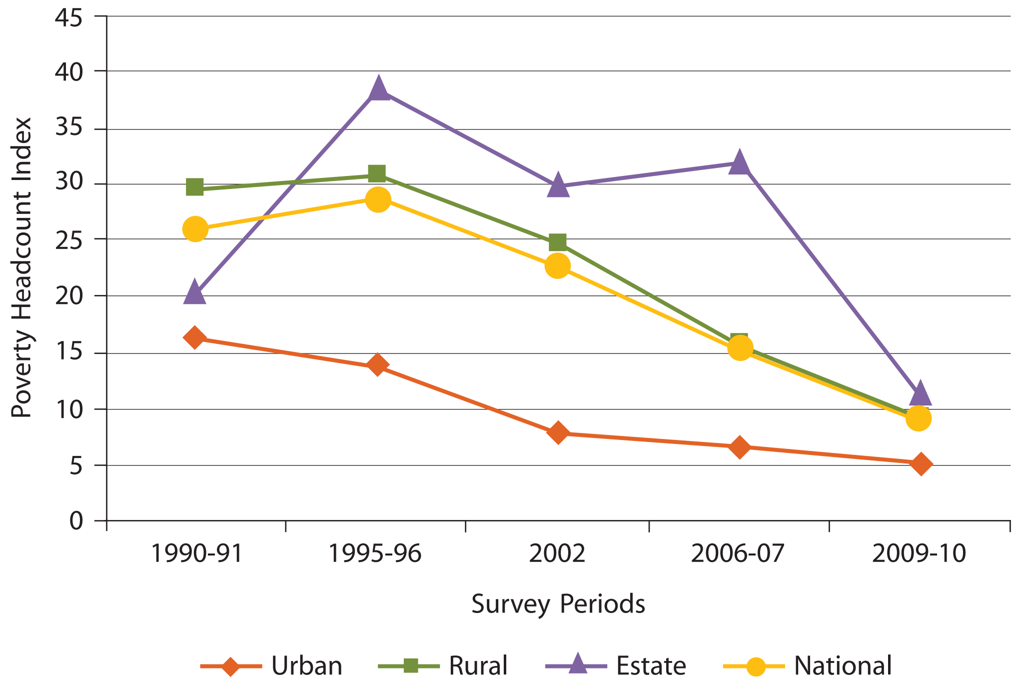
This act will not be applied to regulate a licensed commercial bank, a licensed specialized bank, or a finance company. By the same token, It will have a limited applicability to an entity established under the guidance of the Samurdhi Authority Act, Agrarian Development Act, or to societies registered under the co-operative societies law of 1973 or under a provincial council statute. Since a heavy bulk of microfinance is currently channeled through these entities it is not very clear that, even if the proposed Act is enacted it would bring any critical industry reform. However since the Act will allow microfinance organizations to collect deposits, the microfinance entities can operate independently and expand their business. However they will have to upgrade their products and services to survive and compete in a highly competitive market.

4.4 Poverty and microfinance

Sri Lankan microfinance industry had been driven by the mission of poverty alleviation. When thrift and credit co-operatives was revitalized in 1978 the reported poverty rate of the country was 40% and the focus of the revitalization was poverty alleviation and local economy development (Kiriwandeniya, 1992)

The subsequent players that entered the microfinance market who were born out of a project of NGOs with development missions (both national and International), or a government initiative designed to address rural poverty, such as Janasaviya, Samurdhi and Divineguma, had similar approach to microfinancing. Hence they adopted microfinance as a tool to achieve their development (and political) missions, may it be poverty alleviation, regional development, gender equality, health improvement, youth empowerment or environmental protection.

Figure 21. Poverty Headcount Index for Sri Lanka



Source: Census and Statistics Department

An analysis of the social missions of 37 organizations reported to LMFPA in 2012 reveal that even to this date, both NGOs and microfinance companies have identified poverty alleviation and micro-enterprise promotion as their key priorities when lending. Expanding access to finance has been recognized as an important service to a community that is financially marginalized. Microfinance has helped poor diversify their income sources, generate more income, uplift their living standards and contribute to reducing poverty[7]. Today poverty is in a steady declining process (See Figure 21) and the country is heading to become a middle income state.

However, there is still some geographical pockets in Sri Lanka with high incidence of poverty (Please see Table 44). Each of these regions has its own problems and reasons for the poverty conditions, hence requires regional specific attention. For example, the high incidence of poverty in the plantation sector is due to issues such as the unsatisfactory living and work conditions inherited from colonial times, unique institutional arrangements of plantation sector, low connectivity, low education levels, employer employee relationships, the history of the plantation sector and the politics (World Bank 2007, Jayawardena 2008). Sabaragamuwa, and Central Province has a high incidence of landless families and poor sharecroppers, whose lands were stolen by British to create plantations and who reside in ecologically and geographically challenging lands. Northern Province that was trapped for many decades due to conflict has a critical human resource problem when it comes to poverty alleviation. Uwa Province lost most of its resources (resevoirs, paddy lands, human resource and ownership to land and water) under British. The province also suffered from high incidence of malaria and low connectivity due to the distance from economic hubs after independence.

Table 44. Development Performance of Different Regions

Region	Contribution to GDP (2009)	Poverty headcount index (2009)
Rajarata	232	7
Wayamba	495	7
Southern	492	9
Western	2,178	4
Uwa	168	9.3
Sabaragamuwa	303	9.3
Central	175	9.5
Northern	159	Not available
Eastern	281	5

Source: Sri Lanka the Emerging Wonder of Asia, The Development Policy Framework, government of Sri Lanka

Despite the small size of Sri Lanka, the above brief description itself is sufficient to indicate the need to address the poverty situations in a localized manner. Finance delivered through formal mechanisms alone will not help these regions to be developed and keep par with the development of the rest of the country. Microfinance organizations with their credit plus approaches can play an important role in this process.

4.5 Outreach

Microfinance service providers in Sri Lanka have been able to provide financial service to all communities and regions of the country. While some microfinance institutions cater to a very small locality with limited financial services, others have a national coverage. The heavy involvement of the state in ensuring financial accessibility of rural communities, the flourishing success of the Thrift and Credit Co-operative Societies (SANASA) and the strong involvement of community development oriented civil society organizations (NGOs such as Sarvodaya, Sri Lanka Women's Development Co-operatives and Hambantota Women's Development Federation) can be identified as main reason for the widespread out reach. Recent entrants to the market such as non-banking financial institutions (LOLC, Prime Grameen Microfinance limited), and microfinance institutes affiliated to international

[7] The country's relatively high access to finance has been identified as one of the important reasons for the low and improving rate of poverty (World Bank 2014).

microfinance service providers (such as BRAC Sri Lanka, Berendina Microfinance Institute) have added richness to the accessibility of microfinance to different types of customers.

Table 45 illustrates the nature of the outreach of microfinance services in Sri Lanka. The table has been prepared by Lanka Microfinance Practitioners Association, using their client data base and secondary data sources.

While the outreach numbers are impressive, one must be mindful about the issue of multiple borrowing, when the numbers are analyzed. It has been pointed elsewhere that in Sri Lanka microfinance clients have access to finance by multiple service providers. GTZ Promis financial out reach for 2007 report reveals that approximately 50% of the clients have access to multiple service providers while 19% have more than one. The report further illustrates that people save with several institutions but deal with few institutions for credit. For example while 40% of the sample interviewed have mentioned that they had savings in more than one financial institution only 22% have borrowed from more than one. The number of multiple borrowing is higher (20%) in rural sector than in urban sector (15%) and the reason for this could be due to the limited credit products available in rural market [8] (GTZ-Promis 2007).

Table 45. Type of MFIs and their outreach

Institution	Active clients
Licensed specialized Banks (LSB)	1,256,159
Non-Banking Financial Institutions (NBFI)	199,305
Co-operatives and SANASA	482,332
Companies	397,396
NGOs	47,179
Samurdhi Authority	4,441,834
Department of Co-operative Development	2,151,750
Gemidiriya Foundation	154,308
Total	9,086,803

Source: Microfinance Review 2012, LMFPA

It has been identified that microfinance outreach is higher in rural sector and estate sector while the urban poor is largely served by informal finance. The recent study on urban poverty and financial inclusion in Sri Lanka World Bank maintains that although there is high money circulation and financially active poor population in urban areas, the microfinance industry so far has not been able to adequately penetrate into urban poor pockets (World Bank 2014).

While the above table illustrates the general spread of the service delivery the issue of multiple borrowing has not been counted for this analysis. The percentage has been also calculated against the number of households residing in the respective region. However since one household may have more than one borrower the actual percentage may be less. However, the data gives us an indicator of the relatively spread out access across the regions.

[8] Rural households are primarily served by Samurdhi bank or RDBs who have set products which are often quite small. The loans are issues at an incremental basis. Rural finance needs are diverse and therefore a single source of finance may not be sufficient, if that has restrictions on loan limits.

Table 46. Regional Coverage by Microfinance

Province	Number of Households	Active Borrowers	Coverage (out of the total households)
Western	1,447,311	343,237	24%
Southern	627,657	408,675	65%
Sabaragamuwa	497,456	257,556	52%
North Western	638,382	268,673	42%
Central	645,617	307,775	48%
Uwa	327,938	188,594	58%
North Central	337,887	204,059	60%
Eastern	390,436	212,077	54%
Northern	252,647	136,810	54%

Source: Microfinance Review 2012, LMFPA

4.6 Gender related data

There is very little gender segregated data available across industry to assess the position of men and women in receiving services. However since a large portion of microfinance is delivered through established financial institutions and co-operatives who do not have a gender exclusive policy for microfinancing, it can be safely said that there is no major targeted discrimination (positive or otherwise) along gender when it comes to strategizing microfinance service delivery in Sri Lanka.

However considering the relatively small size of average credit and relaxed collateral requirement, and the credit plus services offered by microfinance organizations, women tend to prefer microfinance more. This could be also due to the convenience of access since women have limited time due to double shifts, and urgent needs associated with family emergencies and children's education.

Women, especially those in rural areas have less assets as collateral to borrow credit from formal institutions. They also have little time since they are involved in domestic and livelihoods related activities. MFIs that are closer to home and does not require assets as collateral is therefore preferred.

MFIs have credit plus services. They organize skill development activities, financial literacy training, exhibitions to market art and craft products are some of these programmes. Women are more attracted to these programmes.

When it comes to agriculture, land ownership is largely in the hands of men and therefore women generally lack collateral to borrow formal credit. However most financial institutions have addressed this barrier through pawning services which is a popular product in Sri Lanka even in the banking industry. Gold being an asset of women, women have been able to access finance though this means.

A large number of NGOs promote microfinance as a strategy to achieve a social goal such as empowering women, decreasing household malnutrition and improving children's education. Women are therefore targeted more for microfinance.

4.7 Products

4.7.1 Credit

Microfinance institutions offer a diverse range of credit products to serve different needs of their clients. The most common loan products are loans for micro-enterprises and agriculture. SME loans are ranked third. It is not very clear if these products are developed based on a market assessment and to suit the needs of the clients or to access available refinance schemes and donor funds.

Pawning has been another important facility offered by licensed finance organizations. This has been highly attractive product for agriculture lending.

4.7.2 Savings

In Sri Lanka since the microfinance industry started with a co-operative movement. Thrift and credit co-operative societies (SANASA movement) have placed a high priority on member savings. Subsequent Microfinance programmes initiated by the government such as Samurdhi Bank programme also placed great importance on savings. The compulsory savings scheme of Samurdhi and compulsory/voluntary savings schemes of co-operatives have given a strong savings based credit culture to microfinance sector. One of the major impediment to the growth of microfinance organizations is the regulatory restriction placed on savings mobilization by microfinance institutions. Savings allow an opportunity to mobilize low cost funds and also it allows a microfinance organization to assess its customers financial behavior.

4.7.3 Insurance

Most microfinance institutions offer insurance services to their clients through partnership agreements with already established insurance companies. The most common type of insurance is life insurance, where the loan balance is written off in the event of death or permanent disability. There are 13 insurance companies providing insurance service to microfinance customers.

One recent innovation in the microfinance in Sri Lanka is the micro insurance programme initiated by SANASA. This was developed as a pilot project, by a local NGO (Forum on Development) in Kegalle District who began introducing a life insurance programme to the traditional funeral services societies. Before the project these societies operated a welfare fund to support the member families at the death of a family member. The new project enabled members of these societies to expand their services and benefit better from the monthly contribution they made to their society. The success of this operation was disseminated by SANASA Federation among a large number of funeral assistance societies. The federation became the catalyst in mobilizing capital from these societies to 'formally establish All Lanka Mutual Assurance Organization (ALMAO). Today this company is a full-fledged insurance company, owned by Funeral Services societies and SANASA societies across Sri Lanka. Many village CBOs partner with SANASA insurance company as agents to sell many types of insurance. The most innovative insurance products they have introduced to Sri Lankan market is cattle insurance (microchip) and index based crop insurance for which they won a gold award at Paris Insurance Award.

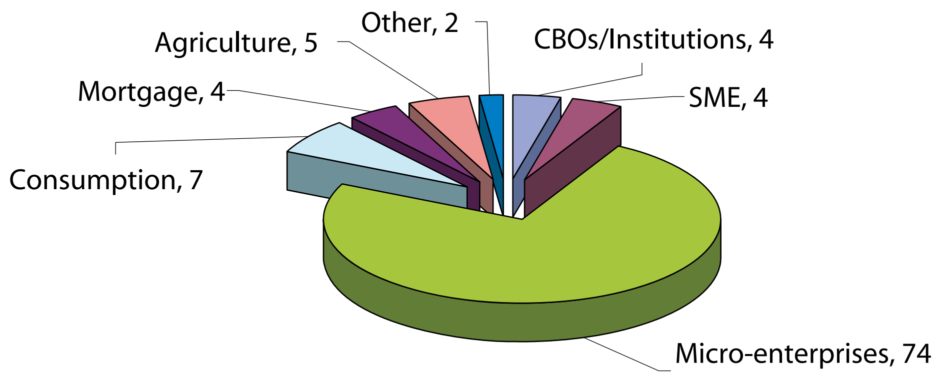
4.7.4 Credit plus services

In addition to the financial products most of the non-bank microfinance organizations are engaged in several non-financial services that add value to the financial performance and business performance of their customers. Some of the most common services are education and exposure visits to develop enterprise skills, business development skills, to improve financial literacy and market awareness.

4.8 Purpose wise loan disbursement

A compilation of data of organizations affiliated to Lanka Microfinance Practitioners Association, who are mostly developmental institutions, reveal that despite the diversity in terms of the type and scale of the organizations, microfinance sector in Sri Lanka has remained micro-enterprise oriented. Consumption and agriculture loans have been ranked as the second priority need. This information can be translated into both positive and negative ways.

Figure 22. Number of loans according to purpose



Source: Microfinance Review 2012, LMFPA

On the positive side one can argue that the credit channeled to poor households have been directed for productive purposes which can bring returns on investment and improve household income. It is not clear how much of the borrowing is actually used for income generation activities. This is a matter to be concerned with as in other countries it has been revealed that 50% of the micro-enterprises collapse before the end of first year and women use their savings and other assets to pay the loan of an enterprise which is no longer functioning (Bateman 2011). Contrary to the expectation that microcredit for micro-enterprises can improve local economy, new research has pointed out that heavy emphasis on micro-enterprises can do damage to rural economies (Bateman 2011).

It is therefore important that microfinance focus on other types of services as well, such as savings mobilization, risk management (micro insurance), and local (collective) capital enhancement when dealing with rural poverty.

Due to the unavailability of a credit bureau and weak management information systems and performance assessment systems, it is not possible to fully understand the impact of microfinance in Sri Lanka without conducting a proper in-depth empirical research.

5. Success Stories

Sri Lankan microfinance history is 100 years long, comprising many different types of initiatives. While government initiatives have been discussed in the introduction and history of microfinancing, following four case studies have been taken for their unique approaches to poverty alleviation. Each of them has been providing valuable financial services an unbanked community for more than 2 decades, have withstood market pressure, remained resilient though innovation, prudential management and organizational reengineering.

SANASA: Local Economic Development through Co-operative Enterprise

Institutional type	A network of 8,000 autonomous, registered Thrift and Credit Co-operatives that own an apex bank, and an insurance company.
Duration of existence	35 years under 1 brand (since 1978)
Total outreach (customers)	3.5 million
Total Assets	Approximately 500 million US$ SDBL 300 million SANASA insurance and other SANASA co-operative societies combined approximately 200 million.
Credit plus Services	Insurance, member education on financial literacy, business development, community development, health and nutrition, trade fair
History and development 1. Birth of SANASA 2. SANASA Development Bank (SDB Limited) 3. SANASA Insurance	**BIRTH OF SANASA** In 1906 British government introduced Savings and Credit Co-operative model to Sri Lanka. In 1950-60 during the food crisis the government gave their patronage to other co-operatives to distribute food subsidies and credit co-operatives were neglected. By 1978 there were scattered 640 credit co-operatives, engaged in minimal service and limited to a small group of village elites who operated it as a savings club. Co-operatives had lost its independent identity and were branded as government vehicles. In 1978 under the direct involvement and guidance of Dr. P.A. Kiriwandeniya, these societies were revitalized in order to proactively take part in rural economic and social development. Under his leadership the movement gained a new identity (SANASA), restructured their operations, changed the bi laws to suit the market economy, and started operating as village banks. This gave birth to an emergence of a microfinance movement that gained prominence in the national and international development forums. In 1986 SANASA was requested by the state to assist the Million Housing Project which was the flagship project of the government funded by US AID. By 1990 SANASA was operating with a three tier system with more than 7,000 societies, under a single brand, providing invaluable service to unbanked rural community in Sri Lanka.

SANASA DEVELOPMENT BANK

In 1994 SANASA decided to enter into financial market to increase its contribution to development. After many years of lobbying, in 1996 SANASA Federation was granted license by the CBSL to establish a license specialized Development Bank. In 1997 SANASA Development Bank was formed with a capital of 191 million rupees from 3,243 societies.

In 2007 under Basel regulations, SDBL had to increase its core capital and since co-operative movement had many difficulties of raising the capital within the stipulated time, SDBL had to collect capital from public. Currently SDBL has a 43 thousand shareholders base.

Under the directions of CBSL, SDBL was listed in the Colombo stock exchange in 2011. Prior to the listing, regional co-operatives consolidated their shares and created 120 trust companies to hold shares of the bank.

Today SANASA Trusts, SANASA societies and other co-operatives hold 51% of SDBL. 38% of shares is held by individual shareholders who are largely small income people. 10% is owned by few companies including International Finance co-operation, ETIMOS and People's leasing.

The bank has received many awards for its prominence in microfinance and poverty alleviation in Sri Lanka and was ranked as the 2nd best microfinance organization based on mix market rates by Forbes magazine in 2009.

SANASA INSURANCE COMPANY

In 1986 federation partnered with a small Non Government Organization called Forum on Development (FOD) to disseminate a pilot initiative that reengineered the operations of a village society that was supporting the funerals of villagers. This type of societies were very popular in Sri Lanka and they were member operated and had a member owned fund collected to be utilized at the event of the death of the member or his/her family member. FOD introduced an insurance scheme to these societies, in order for them to offer wider service in accidents such as snake bites and falling from trees which were common hazards in rural communities.

The scheme was inaugurated in October 1991 with a participatory membership of 182 persons. The organization that was established for conducting the scheme was known as "All Lanka Mutual Organizations" (ALMAO). After 2 year's operation, ALMAO became a registered society and was declared as a Specially Authorized Society by the Ministry of Trade and Commerce under the Societies Ordinance. In 1996 the micro insurance division of the SANASA Federation of Thrift and Credit Societies was amalgamated with ALMAO and as a result, insurance activities of ALMAO expanded rapidly. Consequently, the management of ALMAO decided to strengthen the structure of the organization and to obtain the legal status of a recognized insurer. As there were no provisions in the insurance law to register a Mutual Organization, arrangements were made to set up a registered company to obtain a license to transact insurance business for the SANASA movement. The license was granted by the Insurance Board of Sri Lanka (IBSL)

	established under the Regulation of Insurance Industry Act No. 42 of 2000. Initially the SICL was established to operate only the business of Life Insurance. Before long it had to expand its business operations to the field of General Insurance since its main objective was to introduce micro insurance products with multiple benefits related to both Life and General Insurance Portfolio. Today SANASA Insurance Company is a recognized establishment especially among the low income group and the rural population, as the Insurance Company that provides, affordable Insurance, with substantial benefits. IT serves 17% of population with 40 branches. It provides life and general insurance and partnered with DID Canada, ILO and IFC to offer many innovative insurance services to rural agricultural communities. Some of these products include, Weather index based crop insurance and Cattle insurance. The company also received many business excellence awards in Sri Lanka including the National Agri business gold award and the Gold and Platinum awards at the International Insurance quality Summit in Paris 2013 for the most innovative insurance service. Both SANASA development Bank and SANASA insurance company partner with the 8,000 SANASA co-operative societies to deliver an efficient microfinance financing service to 3.5 million people in Sri Lanka.

DESHODAYA DEVELOPMENT FINANCE COMPANY: Envisioning a sustainable tomorrow[9]

Institutional type	Non-banking financial institution regulated by the Central Bank of Sri Lanka
Duration of existence	2 years (with over 20 year microfinance experience)
Total outreach (customers)	Not available (before incorporating as DDFC seeds recorder 128,000 customer base).
Total Assets	25 million US$
Credit plus Services	Loans, deposits, insurance facilitation
History and development	SARVODAYA is the pioneering non government organization in Sri Lanka which has one of the largest society network to reach out rural villages with different services. With 15,000 rural societies and 32 branch network, SARVODAYA engages in rural development activities with promoting self help and engage in micofinance, health, IT, legal, and other related development services. SEEDS is the popular acronym for Sarvodaya Economic Enterprise Development Services (Guarantee) Limited. SEEDS was established in September 1986 by the Lanka Jathika Sarvodaya Shramadana Sangamaya as its economic empowerment program. Under the leadership of D.A.T. Ariyaratne, the founding leader of the organization, SARVODAYA diversified its services to cater to village poor by improving their entrepreneurial skills, and provision of microfinance. SARVODAYA Economic Enterprise Development gurantee company (SEEDS) was mandated to address this. The mission of SEEDS was to promote the economic transition of marginalized and underserved communities through sustainable livelihoods. SEEDS' credit-plus approach combined credit with business development services and capacity building. In 2000 with the approval of the Central Bank of Sri Lanka SEEDS mobilized savings from the members of SARVODAYA societies in villages. These members were able to access loans from SEED through SARVODAYA societies. In addition to lending its own funds mobilized by SARVODAYA members SEEDS partnered with the National Development Funds such as JTF, NDTF, and also with International funders. By 2011 SEEDS recorded an active client base of 139,799 (62% females), a 2.5 billion rupee (23 million US$) Gross loan portfolio and 710 million deposits. Average loan balance was Rs.17,757/= and the average savings being Rs.12,000/= In 2010 with 99.9% of the core capital mobilized by SEEDS, Deshodaya Finance company was launched under the companies Act No. 7, 2007. With this SARVODAYA-SEEDS was able to expand its financial services to a wider range with savings, credit and pawning. Today DDFC operates through 30 branch offices and 32 customer centers and records 1.13 billion outstanding loan portfolio to small and medium businesses and individual consumption purposes.

[9] The profile was prepared based on the information appeared in SARVODAYA website, self reported data appeared on Lanka microfinance Review 2012, and the Annual Report of Deshodaya finance company 2013-2014.

	The company has a 3 billion total asset and continue to cater to the member base developed over the last two decades by SEEDs, as well as to the new members. The company won the Outstanding Social entreprenuership Award in China.

TARGETTING WOMEN CASE 1

The Sri Lanka Women's Development Services Co-operative Society Ltd.

Institutional type	Co-operative Society
Duration of existence	25 years
Total outreach (customers)	112,603 deposit holders
Total Loan outstanding	Over 1 billion (10 million US$)
Services	Credit, Savings and member education
History and development	The Sri Lanka Women's Development Services Co-operative Society Ltd., commonly known as the Women's Bank in Sri Lanka is a self reliant membership based organization registered under the co-operative societies Law No. 5 of Sri Lanka in 1991. The organization started with the consolidation of 22 women's groups with 250 members with the guidance under the guidance Mr. Nandasiri Gamage a social activist. The organization started to cater the poorest segment of community, namely women in low income households in urban sector in Colombo, and expanded into other parts of the country. With the support of a local NGO praja sahayake sewaya, the organization was able to attract international donor funds to strengthen its seed capital and currently it operates as a successful microfinancing service delivery channel for unbanked poor women with little or no collateral. The organization engages in a mission "to put the resources ideas and support of its own members to raise their social economic and cultural status on the principles of self help without depending on state and other support". With 152 office units and 1,800 staff the organization cater to a large female customer base with average deposit balance of 10,300/= rupees and the average loan size is Rs. 44,000/=.

TARGETTING WOMEN CASE 2

HAMBANTOTA WOMEN'S DEVELOPMENT FEDERATION

Institutional type	Non governmental organization
Duration of existence	25 years
Total outreach (customers)	112,603 deposit holders
Total Assets	Nearly 1 billion (10 million US$)
Services	Credit, credit security program, Savings insurance and training and capacity building
	The WDF is initiated as a result of effective mobilization of women by a government lead poverty alleviation program called JTF in late 1980's. In a time economic problems of rural sector was quite severe and political upheaval due to rural poverty was high, a group of poor women who wanted to improve their living conditioned undertook the initiative to form self help groups under the guidance of some state officials. These initiatives were supported by international donor assistance such as Swedish international development agency and state assistance from poverty alleviation program JTF. As mentioned elsewhere in this report, WDF was given the technical support to develop their microfinance service delivery capacity through JTF. With these technical assistance the self help groups were able to formalise their informal savings and credit arrangement and federated the SHGs into the Hambantota Women's Development Federation and became one of the most efficient microfinance partner of the state poverty alleviation program. The board, management, staff and constituencies are poor women and the organization is restricted to the geographical limit of Hambantota. The organization mobilize funds through grants, loans from state poverty funds, member savings and shareholder Capital. With a gross loan portfolio of 711 million with over 100,000 deposit holders out of which 24,298 active women borrowers WDF is contributing to the development of one of the poorest segment of Sri Lanka whose average deposit balance is about Rs. 6,000/= .

6. Key Observations

One main reason for success of the prominent microfinance programmes in Sri Lanka has been their self-reliant approach from the inception. Most of the microfinance programmes have not started with credit. Building the capacities to absorb credit and establishing a sound recovery mechanism have been given strong attention at the formation. Savings and member education can be identified as the key strategies to improve this.

While purely state driven microfinance has created a subsidy driven culture, state programmes that have partnered with community based local microfinance organizations have been able to establish and enhance successful and sustainable microfinance channels.

Most traditional microfinance organizations have tried to provide total solution to rural poor and therefore, have either developed their own insurance and training arms or have partnered with others to provide these services to their members.

Outreach has been largely done through member networks. Unlike in other countries such as India or Philippines, mobile technology has not penetrated the microfinance industry yet.

Micro insurance has been in operation for the last 13 years and Sri Lanka has some interesting innovations in micro insurance.

Most microfinance channels that have been in operation for more than a decade have started with as savings co-operatives, self help groups and with the changes have changed their institutional set up to suit the needs of their membership and have graduated into more professional financial delivery systems. Some have been able to establish full fledged banks or financial companies that companies that can continue to provide liquidity and improved products to the members. Other have remained as microfinance organizations and have developed smart partnerships with state funding mechanisms and commercial banks who want to penetrate into rural markets.

7. Challenges: Role of microfinance in a middle income country

When the thrift and credit co-operative societies were revitalized in 1978, the poverty index of the country had been at 40%. Today Sri Lanka reports poverty head count index at 6.5 with the gini co-efficient of household income at 0.48 (Central Bank 2012).

It is important to understand the rational for policy makers to assist the sustainability of microfinance service providers in a time when the poverty ratios have come down, and the state and private sector commercial banks can adequately meet the financial needs of the poor who are no longer illiterate, isolated or unconnected? The following are some of the reasons for the importance of sustaining traditional, developmental type of microfinance organization in Sri Lanka.

1. A considerable proportion of population in Sri Lanka, generate their incomes on relatively unstable platforms. Although the unemployment rate is marked at 4%, out of the employed population 60% are employed in the informal sector that is highly vulnerable to ecological and global economic fluctuations.

   Being heavily integrated with global economy, almost all the major sectors of Sri Lankan economy are vulnerable to the adverse effects of global economic crisis. Country's main revenue making avenues such as apparel industry, tourism, foreign employment, construction and plantation depend heavily on external demands. A global economic crisis can have a major hit on the country's revenue, causing contraction on national expenditure on health, and other social welfare programmes.
2. Being an informal labour force with very little formal social protection and health care arrangement, there is continuous dependency on public welfare arrangements. In a situation where a large number of these informal employments collapse, the country will not be able to continuously support these families with social protection schemes, causing a large number of people falling into dire poverty conditions.
3. Labour market being largely informal, the large aging population will not have any formal pension funds or other reserves. Since the responsibility of caring for elders is bestowed on the family, these elders will have to depend on their families who also will have unstable income avenues. With the fiscal limitations and increasing demand on social welfare systems, the state will not be able to provide affordable health care and other poverty assistance programmes. This could lead to severe malnutrition, health problems and social crisis.
4. Food insecurity is another aspect a country with limited reserves should be concerned with. Global food production in recent years have decreased dramatically due to many factors. The rapidly decreasing food production will increase the cost of food items, and it will affect seriously on the food security of countries that have limited budgets to import food and do not produce food for their consumption. Restrictive supply of food against a heavy demand will increase prices, eroding national foreign exchange reserves.
5. Examining the current demographic trends and the instability of incomes of a large number of population, it is not very clear if Sri Lanka will be in a position to sustain these good numbers for a longer term. It is therefore important to support those who are engaged in unsteady occupations in the informal sector to stabilize their incomes.

In an economy where the basic human needs are hardly met, and the nation state is not in a position to provide widely distributed social protection programme, microfinance enables people to pool their limited resources, to mitigate their risks and improve their income.

The important aspect that should be highlighted is that microfinance mobilize not only financial capital but also social capital that can supplement gaps created due to lack of finance. Microfinancing processes provide a place for people to recognize their primary problems as a community, enabling them to find better solutions together. It provides a platform for people to gain consumer education and civic awareness, to get organized and demand services from state and public stakeholders.

Since agriculture productivity, full employment of youth, stabilizing SME market, proper retirement and old age social security plans are critical development needs of today's Sri Lanka, microfinance organizations must engage in partnering with other market leaders to innovate their products to suit these needs rather than staying rigidly focused on micro-enterprise generation.

References

References for part 1

Bardhan, P.K. 1970. "The green revolution and agricultural laborers", *Economic and Political Weekly* 5(19): 31.

Bayes, A. and Mahabub Hossain. 2007. *GramerManushGrameenArthonity – Jibob Jibiker Porjalochona* (Rural People Rural Economy – Evaluation of Lives and Livelihoods), Swaraj/Writers' Foundation, Dhaka.

BRAC. 2014. *Impact Assessment of Credit for the Tenant Farmers*, Research and Evaluation Division (RED), Baseline Report, 2012.

Byres, T.J. 1972. "The dialectic of India's green revolution", *South Asian review, 5(2).*

Dasgupta, B. 1977. *The new agrarian technology and India*, MacMillan, New Delhi.

Frankel, F. 1971. *India's green revolution: economic gains and political costs*, Oxford University Press, Delhi.

GOB (Government of the People's Republic of Bangladesh). The Statistical yearbook of Bangladesh, various issues.

GOB, Ministry of Fiance. 2014. Bangladesh Economic Survey, 2013.

Griffin, K. 1974. *The political economy of agrarian change: an essay on the Green Revolution*, Harvard University Press, Cambridge

Hossain M. and Pingali P.L. 1998. "Rice Research, Technological Progress, and Impact on Productivity and Poverty: An Overview", In. Pingali P. and Hossain M. (ed.), *Impact of Rice Research*, TDRI and IRRI, Manila, Philippines.

Hossain M., M.L. Bose, A. Chowdhury and R. Meinzen-Dick. 2002. "Changes in agrarian relations and livelihoods in rural Bangladesh: Insights from repeat village studies", In V.K. Ramachandran and M. Swaminathan (eds.), *Agrarian studies: Essays on Agrarian Relations in Less Developed countries*, New Delhi, Tulika Books.

Hossain, M. Mohammad Abdul Malek, and Narayan Chandra Das. 2014. *Tenant Farmers' Access to Credit Services:* BRAC Tenant Farmer Project in Bangladesh, Research and Evaluation Division (RED), BRAC, Working Paper 40.

Hossain M. 1996. "Agricultural Policies in Bangladesh: Evolution and Impact on Crop Production", in A.A. Abdullah and A.R. Khan (eds.), State*, Market and Development: Essays in Honor of Rehman Sobhan*, pp. 305-340. Dhaka: University Press Ltd.

Hossain, M. and Abdul Bayes. 2009. Rural *Economy and Livelihoods Insights from Bangladesh,* AH Development Publishing House.

Hoff, K., A. Braverman, and J.E. Stiglitz. 1993. *The Economics of Rural Organization-Theory, Policy and Parctice*, World Bank.

Osmani, S.R. 1998. "Did the Green Revolution Hurt the Poor? A re-examination of the Early Critique", In P.L. Pingali and Mahabub Hossain (ed.), *Impact of Rice Research*, TDRI/IRRI

Pears, A. 1980. *Seeds of plenty, seeds of want: social and economic implication of the Green Revolution*, Clarendon Press, Oxford.

Rahman, H.Z., Hossain M. and Sen, B. 1996. *Dynamics of Rural Poverty in Bangladesh, 1988-94*, University Press Limited, Dhaka.

Sidhu, S.and A Baante. 1984. Agricultural Production, Fertilizer Use and Equity Considerations: Results and Analysis of Farm Survey Data, 1979-80 and 1981-82, Muscle Sholes, Ala, IFDC.

References for part 2

Heng, S., August 13, 2012. The Credit Bureau Cambodia at five-month mark. Phnom Penh, Cambodia: Economics Today Magazine

Kang, C. and Liv, D., 2013a. Rural development and employment opportunities in Cambodia: how can a national employment policy contribute towards realization of decent work in rural areas? ILO Country Office for Thailand, Cambodia and Lao People's Democratic Republic. – Bangkok: ILO, 2013, xiv, 42 p.

Kang, C. and Liv, D., 2013b. Farmers Investment Climate Survey. Asian Development Bank: Manila, Philippines.

Liv, D., 2013. Study on the Drivers of Over-Indebtedness of Microfinance Borrowers in Cambodia: An In-depth Investigation of Saturated Areas. BlueOrchard, Incofin and Oikocredit: Phnom Penh, Cambodia. Retrieve from: http://www.blueorchard.com/wp-content/uploads/2013/05/OID-Final-Report.pdf

Ministry of Planning, 2013.Census of Agriculture in Cambodia 2013. Phnom Penh, Cambodia: National Institute of Statistics, Ministry of Planning in collaboration with the Ministry of Agriculture, Forestry and Fisheries.

Weber, R., Muβhoff, O., and Petrick, M., 2014. How flexible repayment schedules affect credit risk in agricultural microfinance. Department für Agraökonomie und Rurale Entwicklung: Georg-August Universit ät Göttingen. ISSN 1865-2697, retrieved from: http://ageconsearch.umn.edu/bitstream/168700/2/Weber%2c%20Musshoff%2c%20Petrick-DARE_DP_No_1404.pdf

References for part 3

Access Development Services. 2014. Microfinance India, State of the Sector Report, 2013.

Ahangar Gowhar Bashir, Ganie Ashaq Hussain and Padder Mohd Ummer. Jan 2013. A study on Institutional Credit to Agriculture Sector; International Journal of Current Research and Academic Review, Vol. I, No. 4, 2013.

Agriculture Census. 2005-06.

Census of India. 2011. (www.censusindia.gov.in)

CGAP. 2010. Andhra Pradesh 2010: Global Implication of the Crisis in Indian Microfinance, Focus Note 67. Washington, D.C.: CGAP, November 2010.

Das Prasun Kumar. 2011. Towards Corporate Governance of Microfinance Institutions (MFIs) in India. Working Paper No. SRM/KIIT/2.

Das, A., M. Senapati and J. John. 2009. Impact of Agriculture Credit on Agriculture Production: An Empirical Analysis in India. Reserve Bank of India Occasional Papers., Vol. 30, No. 2, Monsoon 2009.

Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India. 2013. Annual Report 2012-13.

Ghiyazuddin M A and Gupta Shruti. 2012. Andhra Pradesh MFI crisis and its impact on clients. June, 2012. Centre for Microfinance and Micro Save.

Gulati Ashok and Bathla Seema. 2002. Institutional Credit to Indian Agriculture: Defaults and Policy Options. Occasional Paper-23, National Bank for Agriculture and Rural Development.

http://www.tradingeconomics.com

http://www.vikalpa.com/pdf/articles/2012/Pages-from-Vikalpa374-113-127.pdf http://agricoop.nic.in/AnnualReport06-07/AGRICULTURAL%20CREDIT.pdf

IFAD, Independent Office of Evaluation. 2013. Project Performance Assessment, National Microfinance Support Programme. Report No. 3088-IN.

Indian Banks' Association. 2008. Report of IBA Sub-Committee on Flow of Credit to Agriculture Sector.

Mahanta Padmalochan, Panda Gitanjali, Sreekumar. 2012. Status of Microfinance in India – A review. (www. indianresearchjournals.com)

Mohan Rakesh. 2004. Agriculture Credit in India: Status, Issues and Future Agenda; Reserve Bank of India Bulletin, Nov, 2004.

National Bank for Agriculture and Rural Development. 2013. Annual Report, 2012-13.

National Bank for Agriculture and Rural Development. 2013. Status of Microfinance in India, 2012-13.

Planning Commission, Government of India. 2013. Report of the Working group on outreach of institutional finance, cooperatives and risk management for the 12th Five-Year Plan (2012-17). November, 2013.

Planning Commission, Government of India. 2013. Twelfth Five-Year Plan (2012-17), Vol. I & II.

Reserve bank of India. 2013. Master Circular-Priority Sector Lending-Targets and Classification. July, 2013.

Reserve Bank of India. 2013. Statistical Tables related to Banks in India, 2012-13.

Reserve Bank of India. 2013. Handbook of Statistics on Indian economy. 2012-13.

Sa-Dhan. 2013. The Bharat Microfinance Report, 2013.

References for part 4

Singh, Katar, *Rural Development: Principles Policies and Management,* Sage Publication, New Delhi, 1986.

Chambers, Robert; *Rural Development: Putting the Last First;* Person Education Limited, Longman, London, 1983.

Ploge, Jan D.V. Der, et al.; *Rural Dvelopment: From Practice and Policies Towards Theory, in 'Rural Development', Sociologia Ruralis,* UK, Vol. 40, No. 4, October 2000.

Fernando, N.A.; *Rural Development Outcomes and Drivers,* Asian Development Bank, Manila, 2008.

Adhikari, Shyam P.; *Integrated Rural Development in Nepal,* Sahyogi Press, Kathmandu, 1982.

Pokhrel, Bharat; *Rural Political Economy of Nepal,* New Hira Books Enterprises, Kathmandu, 2004.

Acharya, Baburam, *Dimension of Rural Development in Nepal,* Dhaulagiri Jounal of Sociology & Anthropology, Vol. 2, 2007.

Gurugharana, K.K; *Poverty Alleviation and Human Development: The Nepalese Case,* in Madan K. Dahal (edt.) Future of Nepalese Economy, NEFAS/EFS Kathmendu, 1993.

NPC, *Ninth Plan Approach Paper 1997-2002,* National Planning Commission, Kathmandu, 1998.

NPC, *Tenth Plan 2002-07,* National Planning Commission, Government of Nepal, Kathmandu, 2002.

Dahal Dhruba P.; *Perodic Plans and Result (MFDR),* "Vikas Journal of Development", Vol. 33, Kathmandu, May 2012.

IFAD, *Emerging Lessons in Agriculture Microfinance: Selected Case Studies,* IFAD, Rome, 2006.

Abedullah, N. Mahmood ET. Al; *the Role of Agricultural Credit in the Growth of Livestock Sector,* Vetenerary Journal, Pakistan, 2009.

Adam, Dale W. and Vogels, Robert C; *Rural Financial Markets in Low Income Countries,* Eicher, Carl and John Srtaaty (ed.) 'Agriculture Development in Third World', The John Hopkins University Press, Baltimore, USA, 1990.

Waqar, Akaram, et al.; *Impact of Agricultural Credit on Growth and Poverty in Pakistan,* European Journal of Scientific Research, Vol, 23, No. 2, 2010.

Roux, S.M.; *What Can Microfinance Contribute to Agricullture in Developing Countries?* in 'Proceeding From International Conference Organized by Foundation Pour 1' Agriculture (FARM), Paris, 4-6 December, 2007.

Deichmann; Uwe and Zhang, Fan; *Growing Green: The Economic Benefit of Climate Change,* The World Bank, Washington, D.C., 2013.

Sachs, Jeffery; *Smallholder Food Production and Poverty Reduction (Report)* Ad Hoc Advisory Group to the Madrid Conference on Food Security, Ideas Foundation, Spain, January 26, 2009.

Ministry of Finance, *Economic Survey: Fiscal Year 2013/14, Government of Nepal,* Kathmandu, July 2014.

http://www.food and environment.com/2013/02 policy-return-and-strategy.html.

Kadka, Manbir S; *Agriculture Development: Engine of Growth,* The Himalayan Times, 3 July 2014.

World Bank, *Nepal: Priorities for Agriculture and Rural Development,* http://web.world bank.org/wesite/ external/countries/SouthAsia, 2013.

Pant, Bishnu Dev and Palikhe, Aruna, *Agriculture Performance and Food Security in Nepal,* 'SAMBAD', IIDS News Letter, No. 31, June 2012.

ADB, *Agriculture and Natural Resources Sector in Nepal (Evaluation Study)* Asian Development Bank, Manila, June, 2009.

Omata, N; *Microfinance Recent Trends and Emerging Challenges,* http://www.oxhip. org/2013/01 microfinances – recent – challenges, 14 March 2013.

Sander, Cersten and Mainbo, Munzeli, *Migration Labor Remittances in Africa: Reducing Obstacles to Developmental Contribution,* World Bank, Washington, D.C., 2009.

Zeller, Manfered, *Perfect Innovation for the Poor: The Role of Microfinance,* International Food Policy Research Institute (IFPRI), Policy Brief No. 3, USA March 2000.

Mahul, O; and Stutley, et al., *Government Support to Agriculture Insurance: Challenges and options for Developing Countries,* The World Bank, Washington, D.C. 2010.

Hazel et al.; *Crop Insurance for Agricultural Development Issues and Experience,* International Food Policy Research Institute, John Hopkins University Press, USA, 1986.

WB, *Agricultural Insurance Feasibility Study for Nepal,* The World Bank, Washington, D.C., 2009.

DCGC, *Annual Report 2011/12,* Deposit and Credit Guarantee Corporation, Kathmandu, 2012.

WB, *Feasibility Study of Agriculture Insurance in Nepal,* South Asia Region Global facility for Disaster Reduction, World Bank, 2009.

Arthiknews.com, http://www.aarthiknews.com/en/articles-views/scope-of-agriculture-in-nepal, 552, 8/14/ 2014.

Asian Century Institute, *Financial Inclusion in Asia-Some Solutions*, http://www.asiancenturyinstitute. com/development/277-financial-inclusion-in-asia-some-solutions, 8/15, 2014.

Gaire, H.N., *Financial Inclusion Must For Inclusive Growth,* New Business Age, http://www.newbusiness age.com/issuedetail/659, 2/18,2014.

Adhikari Shikha; *Branchless Banking Through POT Machine,* 'Arrunodhaya', Nepal Personnel Organization/ NRB, Year 20, No., 18, 2013.

Share Bazar, http://www.sharebazarnepal.com.np/corporate news announcement/960.2/6/2014.

Nepal News.Com, Country's Banking Access is still low, http://www.financial Nepal.com(news) detail/access-still-low, 8/29/2013.

Nepali Times, *Banking on Technology,* http://nepalitimes.com/news.php?id=19366, 8/15/2014.

NRB, *The Service Related To E-Banking,* Nepal Rastra Bank, I Pra Directive 21/070, Kathmandu, 2013.

NRB, *Financial Sector Development Strategy, For Inclusive Growth,* 'Paper prepared for 49th SEACEN Governer's Conference and High Level Seminar, Kathmandu, 21-23 November, 2013.

Himalayan Times, http://www.thehimalayantimes.com/full Today.php? headline=Branchless+banking+gains+momentum, 8/15/2014.

IFAD, *Financing Facilities For Remittances,* International Fund for Agriculture Development, Rome, 2014.

WB, *Large Scale Migration and Remittance in Nepal; Issues, Challenges and Opportunities,* Report No. 55390-NP, The World Bank, Washington, D.C., June 23, 2011.

NRB, *Quarterly Economic Bulletin,* Nepal Rastra Bank, Kathmandu, Vol. 48, No. 3, Mid-April 2014.

NRB, *4th Household Budget Survey Nepal,* Nepal Rastra Bank, Kathmandu, 2008.

MOF, *Public Statement on Income and Expenditure for the Fiscal Year 2013/14*, Ministry of Finance, 14 July 2013.

NRB, *Monetary Policy of Fiscal Year 2014/15,* Nepal Rastra Bank, Kathmandu, July, 2014.

ADB/M, *Nepal Rural Finance Sector Cluster Programme (Sub-programme),* Asian Development Bank, Manila, 2010.

CBS, *Nepal Living Standard Survey-III,* Central Bureau of Statistics, Kathmandu, October 2012.

Adhikari, M.P.; *Contribution of Banks and Financial Institutions to the Financing of Rural Development in Nepal,* Paper Prepared for 4th Rural Congress, APRACA, Paris, September 2013.

Dhungana B.R; *Is Microfinance An Effective Tool To Achieve MDGs? A Case of Nepal,* in 'Vikas' A Journal of Development, National Planning Commission, Vol. 35, No. 1, January 2014.

NRB, *RSRF Progress Report,* Microfinance Promotion and Supervision Department, Nepal Rastra Bank, Kathmandu, August 2014.

Kshetry, Deependra B; *Cooperative in Youth Employment,* Paper Presented of 1st National Cooperative Congress, Kathmandu, 25-27 March 2014.

DOC, *Data Template on cooperative scenario,* Department of Cooperatives, Kathmandu, July 2014.

MIX, *MIX Microfinance World: State of Social performance in Nepal,* MIX Microfinance World, Washington, D.C., March 2014.

Kaplinsky, Raphel and M., Morris, *A Handbook for Value Chain Research,* IDRC, 2001.

AFDBG, *Agricultural Value Chain Financing (AVCF) and Development for Enhanced Export Competitiveness,* African Development Bank Group, Tunisia, 2013.

Sing, Anup; *Workshop on Enhancing Exports Competitiveness Through Value Chain,* Background Paper 6, Ministry of Finance, South Africa, November 16, 2012.

ADB/M, *Agriculture Value Chain for Development,* in "Learning lessons"; Asian Development Bank, Manila, June, 2013.

Khatiwada, Yuba Raj, *Keynote Speech by Governor at Nepal National Policy Dialogue on Agriculture Value Chain Finance* Dhulikhel, Kathmandu, 3-4 September, 2013.

APRACA, *Financial Empowerment of Poor Rural Communities; A Companion of Rural Finance Innovations and Best Practices,* APRACA , Bangkok, 2012.

Mercy Crops, *Value Chain Finance and Nepal: Perspectives and Insights,* Mercy Crops, Kathmandu, 2011.

GTZ, *Hand Made Paper in Nepal: Upgrading with Value Chain Approach,* GTZ/RUFIN, Lalitpur, 2007.

ICIMOD, *Engendering Value Chain Development,* ICIMOD, Kathmandu, November, 2009.

NAT, http://www.worldbank.org/en/result2014/04/11nepal-agriculture-trade, Nepal Agriculture Trade, April 2014.

ICIMOD, *Engendering the Value Chain: The Case of Community-based Bay Leaf Enterprise in Nepal,* ICIMOD, Kathmandu, 2013.

Helvetas, *Banana Pape rMaking Process,* http://nepal.helvetas.org/en/countryprogramme/innovation_newbanana, Helvetas, 8.31.2014.

Subedi, A; et al., *Value Chain Analysis of Non-Timber Forest Products in Baglung District,* Banko Jankari, Vol. 19, No. 2, 2011.

HIN, *A Study of Goat Value Chain in Nepal,* Heifer International Nepal, Lalitpur, July 2012.

Pradhan K.K., *Development Fiannce,* Nepal Rastra Bank in Fifty Years, Nepal Rastra Bank, Kathmandu, Nepal, July 2005.

CBS, *Poverty in Nepal,* Third Living Standard Survey, Central Bureau of Statistics; Economic Surveys, Kathmandu, 2012-2014.

NPC, *Approach Paper of 13th Plan (2010-13),* Kathmandu, July 2013.

NRB/CECI, *Micro financing Towards Empowerment of Disadvantaged Groups in Nepal: Innovations and Practices,* Centre for International Studies and Cooperation, Kathmandu, March 2008.

MOAC, *National Agriculture Sector Development Priorities (NASDP) For the Medium Term 2010/11-2014/15*, Ministry of Agriculture and Cooperatives, Kathmandu, July 2010.

Sharma, Pitambar, *Some Aspects of Nepal's Social Demography,* Himal Books, Kathmandu, 2014.

Antwi, George; *the Analysis of Rural Credit Market in Ghana,* International Business and Economic Research Journal, Vol. 9, No. 8, August, 2010.

Sagravio, M; and Ray, Devbraj; *Vertical Link between Foramal Financial Institution,* in 'Review of Development Economics', Blackwell Publisher, Britain, 1997.

Llanto, Goilberto M; *Overcoming Obstacles to Agriculture Microfinance Looking at Broader Issues,* in 'Asian Joural of Agriculture and Development,' Vol. 4 No. 2, 2008.

Meyer, Rechard L; *Microcredit and Agriculoture: Challanges, Successes and Prospects,* Paper Presented in Symposium Organized by German Federal Ministry for Economic Corporation and Development, CABFIN Consortium, Germany, 2011.

Zeller, M; *Models of Rural Financial Institutions,* Paper Presented for Conference 'Paving Way Forward for Rural Finance', USAID, Kathmandu, 2003.

IFC; *Toward Universal Access: Addressing the Global Challenges of Financial Inclusion,* International Finance Corporation, World Bank, Washington, D.C.; 2012.

Zhang, Nan and Mong, Perry; *Sustainable Micorfinance in Asia; Landscape, Challanges and Strategies;* Miliken Institute, California, 2014.

IIDS, *Nepal Economic Outlook-2012/13,* Institute for Integrated Development Studies, Kathmandu, 2013.

MoAU, *Agriculture Development Strategy (ADS),* Kathmandu, 2014.

References for part 5

Bringing Finance to Pakistan's Poor – Access to finance for small enterprises and the underserved; T Nenova et al.; The World Bank, Washington, D.C. 2009

Branchless Banking in Pakistan: A Laboratory for Innovation, Consultative Group to Assist the Poor (CGAP), 2011.

Pakistan Federal Bureau of Statistics (FBS)

Framework for Economic Growth; Planning Commission, Government of Pakistan, 2011

Jinnah Welfare Society; Annual Report 2011

Pakistan Economic Survey, 2012-13; Ministry of Finance, Government of Pakistan.

National Rural Support Program (NRSP) Monthly Program Update, June 2014

Pakistan Access to Finance Study; the World Bank Group 2008.

Research Paper 03: 'Significance of Small Deposits for Microfinance Providers'; Pakistan Microfinance Network (PMN), June 2010. http://www.pmn.org.pk/assets/articles/Significance%20of%20Small%20Deposits%20for%20MFPs.pdf

Who is the Arthi? Understanding the Commission Agents Role in the Agriculture Supply Chain; Pakistan Microfinance Network (PMN); August 2013. http://www.pmn.org.pk/assets/articles/5486c831c0a5177122cdff4efbff04ae.pdf

Microwatch; Issue 34: quarter 4 (Oct-Dec 2014); Pakistan Microfinance Network (PMN); http://www.pmn.org.pk/assets/articles/245e856cc25d3e79b3f52223ef406249.pdf

Pakistan Microfinance Network (PMN); Pakistan Microfinance Review 2013; http://www.pmn.org.pk/assets/articles/5cfb122011df790b3f0a13791b75373d.pdf

Reducing Vulnerabilities of the Poor through Micro-Insurance; Good Practice Note No. 1; Pakistan Poverty Alleviation Fund (PPAF); October 2012.

References for part 6

2008 Year End Report on Bangko Sentral ng Pilipinas (BSP) Initiatives for Microfinance and Financial Inclusion.

Asia Focus. 2010. Microfinance in the Philippines. Country Analysis Unit: Federal Reserve Bank of San Francisco.

Ashraf, N., Karlan, D. and Yin, W. 2010. Female Empowerment: Impact of a Commitment Savings Product in the Philippines. World Development, 38(3): 333-44

CARD Mutually Reinforcing Institutions. Keeping the spirit. Annual Report 2013.

Chemonics International. 2012. Innovations in expanding access to microfiance. Microfinance Access to Banking Services (MABS) Program Phase IV Final Report. USAID Philippines.

Christen, R.P. and Pearce, D. 2005. Managing risks and designing products for agricultural microfinance. CGAP Occasional Paper #11, Washington, D.C.

Daley, S. and Sautet, S. 2005. Microfinance in Action: The Philippine Experience.

Economic Intelligence Unit (EIU). 2009. Global Microscope on the Microfinance Business Environment.

Gine, X., Townsend, R. and Vickery, J. 2008. Patterns of Rainfall Insurance Participation in Rural India. The World Bank Economic Review 2008 22(3): 539-586.

Gine, X. and Young, D. 2007. "Insurance, credit and technology adoption: Field experimental evidence from Malawi." Policy Research Working Paper Series 4425, The World Bank.

IPA. 2009. Improving Agricultural Microfinance. Barriers to the supply of agricultural lending in the Philippines. IPA in partnership with PinoyME Foundation and Hanns Seidel Foundation/Germany.

JBIC Pilot Study on Sustainable Microfinance for Poverty Reduction in the Philippines.

John J. Caroll Institute on Church and Social Issues. Undated. Making Microfinance Work for Agriculture.

Microfinance Industry Report. 2010. MCPI in collaboration with SEEP Network and funded by CITI Foundation.

Navarro, E.L. 2012. Financing the agricultural value chain: Examples from the Philippines. Paper presented in the APRACA Regional Forum on Strengthening the Resilience of Smallholder Farmers through Rural Finance Innovations, 2012 May 30, Siem Reap, Cambodia.

Navarro, E.L. 2013. The CARD financial institutions: Financing MSME in the production and processing of organic products in the Philippines. Paper presented in the Asia-Pacific Regional Symposium on "Entrepreneurship and Innovation in Organic Farming", 2013 December 2-4, Bangkok, Thailand.

PinoyME, Hanns Seidel Foundation. Mainstreaming Micro: The State of the Art of Microfinance and Micro enterprise Development in the Philippines. Stakeholders Conference and Policy Recommendations.

Roman, P.B. 2004. Microfinance in the Banking Sector: Current Environments and Future Directions. Paper presented during the 9th National Convention on Statistics (NCS) EDSA Shangri-La Hotel, October 4-5, 2004.

Roman-Tayag. P.B. 2010. Microfinance: Yesterday, Today, and Tomorrow: What is the Next Best Practices. RBAP-MABS National Roundtable Conference.

Senate Economic Planning Office. 2009. Financing Agriculture Modernization: Risks & Opportunities.

Sicat, A. and Graham, M. 2006. 2004. Philippines Benchmarking Report. Microfinance Information Exchange (MIX).

Valencia, C. 2014. Agriloans up 7.5% in 2012. Philippine Star Business. philstar.com, July 14, 2013.

www.bsp.gov. ph

www.landbank.com

www.rbapmabs.org

References for part 7

Asian Development Bank. 1997. Microenterprise Development: Not by Credit Alone.

Bateman, M. 2011. Confronting Microfinance: Undermining Sustainable Development, Kumarian Press, USA.

Central Bank of Sri Lanka. 2014. Annual Report 2013. Colombo, Sri Lanka.

______. 2013. Annual Report 2012. Colombo, Sri Lanka.

______. 2012. Annual Report 2011. Colombo, Sri Lanka.

______. 2010. Annual Report 2010. Colombo, Sri Lanka.

Chandrasiri, J.K.M.D. 2006. "*The recent changes in rural credit market in relation to paddy cultivation in Sri Lanka: Findings of a field study*" in Sri Lanka Journal of Agrarian Studies, Vol. 11, pp. 34-46, Hector Kobbekaduwa Agrarian Research and Training Institute, Sri Lanka.

Department of National Planning: Ministry of Finance and Planning. 2010. "Sri Lanka: the emerging wonder of Asia".

Fernando, Roshini and Cristina Modoran. 2008. Outreach of financial services in Sri Lanka: A look at the Demand-side from a Microfinance Perspective, GTZ Promis, Colombo, Sri Lanka.

Gunawardena, J.A.T.P. 2008. *" Alleviation of poverty and hunger through development of non plantation sector"* in Eradiacation of Poverty and Hunger: Proceedings of the OPA 21st annual sessions, organization of professional association of Sri Lanka, Colombo.

Herath, A. 2007. Impacts on ADB projects on Agriculture Policies: CEPA working paper series no. 15-2007, Colombo, Sri Lanka.

Hettige, S.T. 2009. Global economic crisis and the Challenge of poverty alleviation in Sri Lanka. Proffessor Sirisena Tilakaratna memorial oration 2008. Colombo, Sri Lanka.

Hulme, D, R. Montgomery and D. Buttachatya 1996. "*Mutual Finance and Poor: A study of the Federation of Thrift and Credit co-operatives (SANASA) in Sri Lanka*" in Finance Against Poverty: Volume 2 pp. 177-245, edited by Hume D and P. Mosely, Routledge, London.

Kiriwandeniya P.A. 1992. The growth of SANASA movement in Sri Lanka. In M. Edwards and D Hume (eds): Making a difference: NGOs and Development, London: Earthscan. pp. 111-117.

LMFPA. 2012. Microfinance for Development and Equity, Nugegoda, Sri Lanka.

LMFPA. 2012. Microfinance Review – Sri Lanka, Nugegoda, Sri Lanka.

Marawila, D. 2007. "*Revitalizing Small Scale Agriculture: Rental Policies of Alienated State Lands of Sri Lanka"* in Sri Lankan Journal of Agricultural Economics Vol. 9, pp. 23-42.

Padmajani M.T. 2010. "*Growth Performance and Structural change in the paddy Sector in Sri Lanka: Comparison between Pre and post liberalization process*" in Sri Lanka Journal of Agrarian Studies, Vol. 14, pp. 69-82, Hector Kobbekaduwa Agrarian Research and Training Institute, Sri Lanka.

Rajapaksa R.D.D.P and K.S. Karunagoda. 2009. "*Factor Demand for paddy cultivation in Sri Lanka with special reference to fertilizer subsidy programme"* in Sri Lanka Journal of Agrarian Studies, Vol. 13 No. 2, pp. 25-38, Hector Kobbekaduwa Agrarian Research and Training Institute, Sri Lanka.

Sanderatne, N. 2002. Leading Issues in Rural Finance. Post Graduate Institute of Agriculture, University of Perdeniya, Sri Lanka.

Weerakkody P.R. and Kumara S.K. 2009. *"Status of rural women in Sri Lanka within the context of rural development"* in Sri Lanka Journal of Agrarian Studies, Vol. 13 No. 2, pp. 1-24, Hector Kobbekaduwa Agrarian Research and Training Institute, Sri Lanka.

Wickramasinghe, W. 2010. "*Rural Development Measures: Indicators and indices for Sri Lanka*" in Sri Lanka Journal of Agrarian Studies, Vol. 14, pp. 23-44, Hector Kobbekaduwa Agrarian Research and Training Institute, Sri Lanka.

Wijethunga, M.W.A.C.S and T. Abeysekera. 2010. *"A review of Public Expenditure in Agriculture Sector in Sri Lanka 1998-2009: Trends and Emerging Issues"* in Sri Lanka Journal of Agrarian Studies, Vol. 14, pp. 45-68, Hector Kobbekaduwa Agrarian Research and Training Institute, Sri Lanka.

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