Cultivation Credit for Chillies, Big Onions and Potatoes: An Assessment of Credit Sources and Their Issues

J.K.M.D. Chandrasiri
B.A.D.S. Bamunuarachchi

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Hector Kobbekaduwa Agrarian Research and Training Institute
114, Wijerama Mawatha
Colombo 7
Sri Lanka

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FOREWORD

In the domestic food production sector of Sri Lanka credit is a very important input because investing more for advance technology to increase production and productivity is an absolute necessity.. The majority of farmers who derive a low income from smaller sizes of operational land holdings are unable to make required investments so that they need to obtain credit.

The past Governments in the country have taken actions to satisfy the credit needs of the smallholder farmers by implementing different credit schemes from time to time. The farmers growing different crops (such as paddy and other field crops) have different experiences and faced different problems related to credit schemes. As a result they have adopted different methods for financing their agricultural activities including borrowing cash, input and services from formal as well as informal sources which may or may not have unfavorable effects.

This study concentrates on the nature of financing and related issues of some selected crops such as chillie, b'onion and potatoes. Although these are high value/commercial crops, majority of the farmers involved in their cultivation are smallholders. The study focuses on the type of credit sources the farmers used for their credit needs, the appropriateness of those credit sources, inter-relationship of credit with input and output market, the issues in relation to credit sources especially with Farmer Bank as a more closer institution to the farmers.

The study has made recommendations to strengthen and make the Farmer Bank more effective credit source for the farmers.

I congratulate the team of researchers of the institute for successfully completing the study and hope the findings of the study would be useful to policy makers and the others interested in the relevant field and upliftment of farmers in the country.

Lalith Kantha Jayasekara
Director

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We are also thankful to the members of the Research and Training Committee of the HARTI for supporting the study and comments on the draft report. We take the opportunity to express our sincere thanks to managers of the government and private banks and other financial institutions like cooperatives, leaders of the community level credit giving institutions like Farmer Organizations and Death Donation Societies for helping us to conduct the study successfully by providing relevant data and information about their institutions.

We wish to express our gratitude to farmers who helped us to conduct the sample survey by giving us the necessary information.

Four graduates including Mr. K.D. Daniels, Mr. R. Kumara, Miss S.G.U. Gamage and Miss S. Hettiarachchi were involved in collection of data from farm households in four study districts, as casual investigators. Mr.H.M.S. Jayarathna, Statistical Assistant of the Market Research Unit of HARTI also helped in data collection from Nuwara Eliya District in numerous ways including arranging farmers and field level officers to meet the research team. We are much indebted to them.

Mrs. S. Senanayake, Statistical Officer of the HARTI, took the responsibility for supervising field data collection and coding the data. Mrs. C.N. Premawardhana, Analyst programmer and Mr. M.D.L. Senarath, Senior Analyst Programmer of the HARTI were involved in analysing data and supervision. Prof. W.I. Suraweera, former Chairman of the University Grants Commission edited the final draft of the report. We appreciate their dedicated services.

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J.K.M.D. Chandrasiri
B.A.D.S. Bamunuarachchi

EXECUTIVE SUMMARY

Credit is an important input in enhancing productivity and income of smallholder farmers who can't afford to invest in advanced technology. This is more noticeable in the cultivation of commercial food crops such as chillie, b,onion and potato in which production cost is relatively high. This study was conducted with the objective of identifying the credit sources of farmers growing chillie, b'onion and potato and the problems faced by them. The study which paid special attention to informal credit sources was based on a questionnaire survey of relevant farmers in Anuradhapura, Puttalam, Matale, Nuwara Eliya and Badulla districts.

The findings revealed that about 90% of the farmers growing these crops had obtained credit which indicates importance of credit for cultivation. The average number of loans obtained by a single farmer was two or more both in rural and urban locations. Their credit consisted of three types; cash, kind and services. About 79 percent of the loans were cash loans. The value of loans obtained in kind (as input) was 22 percent and the value of service loans was about one percent. Formal credit sources were predominant, and were over 90%. This was due to expansion of formal credit sources covering not only banks but also community organizations like farmer organizations and death donation societies. Among them, government commercial banks had been more popular as farmers had easy access to such credit linked to adaptation of convenient methods (signing by two fellow account holder farmers) for collateral requirements. Farmer Bank has not been popular among them as a mechanism to obtain credit mainly because of its low credit ceiling for cultivation credit: i.e. Rs.25, 000/- per farmer. Obtaining loans by pawning gold appears to be a widely expanding phenomenon for obtaining investment capital for cultivation. About 30% of number and amount of loans had been through mortgaging gold. Comparatively lesser credit cost and time spent and lesser procedures and higher amount obtainable, pawning gold appeared to be a more advantageous form of credit source to commercial food crop farmers. Among informal sources, miscellaneous type of vendors including agro-input suppliers, economic centre traders and friends and relations as well as money lenders had played a role in providing credit. Most of the informal sector credit was interlinked with input as well as output market. But they did not adversely affect the farmers as they were able to obtain the due price for their products when sold to the lenders.

Although, access to banking credit was not much difficult, farmers were not willing to fully depend on bank because they have to spend much of their time and money for obtaining them. One of the cheaper and more convenient credit source was pawning gold, but the poor farmers who do not possess gold can't benefit from it. The study concluded that as the Farmer Bank is a more convenient way to obtain credit at lower cost and a within a shorter time period it should be strengthened to the level that farmers' credit requirements are fulfilled.

The recommendations are to strengthen the Farmer Bank and to make it beneficial for the farmers increasing membership of the farmer banks thorough creating awareness about its benefits, raising capital of the farmer bank through selling more shares to farmers and increasing credit ceiling matching with crops etc.

LIST OF CONTENTS

LIST OF TABLES

CHAPTER ONE

Introduction

1.1 Credit for Agriculture

The provision of credit has been increasingly regarded as an important tool for raising incomes of rural populations, mainly by mobilizing resources for more productive uses. In case of agriculture this has become more and more relevant and important. In order to enhance agricultural production and productivity, farmers need to use improved agricultural technologies. But the adoption of these modern technologies is relatively expensive and small farmers cannot afford to finance them on their own. As a result utilization of modern agricultural technologies is very low in the small farming sector. Hence, it is argued that enhanced provision of farm credit would accelerate agricultural production, productivity and income of the rural households (Briquette, 1999 quoted in Yehuala, 2008).

1.2 Agricultural Credit in Sri Lankan Context

Providing credit for agriculture is an important factor not only for agricultural development, but also for rural development of Sri Lanka due to two main reasons. One is the predominance of smallholders operating less than one hectare of land in the subsistence food crop sector. These cultivators require credit for operational capital because of their limited income resulting from smallness of their land size and also due to some other factors such as low productivity, crop damages, and escalating price structure. The other is that agriculture being one of the important sectors in the whole country and the most prominent sector of the rural economy, it needs financial support even though its contribution to the gross domestic product has declined substantially during the past 3 decades (from 30 percent in 1970 to 12 percent in 2009). A substantial portion of the labour force of the country is also involved in agriculture. Approximately 32.7 percent of the total labour force was engaged in agriculture in 2010. As over 70 percent of the population in the country live in rural areas, significantly a higher percentage of the labour force of those areas are involved in agriculture and allied activities for their living. Therefore, providing credit especially for improving production and productivity of agriculture and allied activities will be a boom to the rural sector.

1.3 Credit for Commercial Crops

In the subsistence farming sector in addition to cultivation of rice, various other food crops such as grains, condiments, roots, pulses, oil seed crops, vegetables and fruits are grown mainly for consumption purposes. Some other crops like chilli, big onion, red onion, potato and sugarcane are cultivated mainly for commercial purposes. Presently, working capital requirements especially for commercial crops such as onion, chilli and potato are higher compared to requirements for paddy. Some other subsistence crops need substantial capital due to increased prices of fertilizer, machinery and high yielding

seeds. Besides, labour is scarce and costly under existing socio-economic environment in the country. So those who cultivate these crops rank high among most credit needy farmers.

1.4 Research Problem

The Sri Lankan government has attempted to provide concessionary credit facilities to the smallholder farmers for a long time since 1940's. These credit facilities are still continued with certain modifications depending on the available credit schemes. The New Comprehensive Rural Credit Scheme (NCRCS) which was initiated in 1986 is the last modification of the government sponsored agricultural credit scheme. It is implemented by the Central Bank of Sri Lanka with the support of leading government and private commercial banks and is intended to cover the credit requirements of paddy and subsidiary food crop sectors all over the country. Besides, there are some other specific regional or crop basis credit schemes under particular projects to cover the credit requirements of paddy and subsidiary food crops sectors. These have been launched by commercial banks as well as other development banks. They are Regional Development Bank (the new name after amalgamation of divisional banks like *Rajarata Sanwardena* Bank, *Kandurata Sanwardana* Bank and *Wayamba Sanwardana* Bank), Govijana Bank (farmers' revolving fund) and Samurdhi Bank. Cooperative Banks and Community Based Organizations like Farmer's Organizations, Death Donation Societies are also providing credit for agriculture.

Recent evidence (Central Bank of Sri Lanka, 2005, Asian Tribune, 2007) indicates that despite the existence of many sources of formal credit; most of the rural farmers depend heavily on informal sources than formal sources for their credit requirements. General observations as well as official views are also the same. In this environment, it is not clear as to what extent the farmers cultivating commercial food crops such as chillies, b'onion and potatoes depend on different formal and informal credit sources. As informal credit seems to be often interrelated with input as well as output market such transactions may or may not adversely affect the borrowers. It is also questioned as to why the informal credit transactions of the above mentioned commercial food crop farmers adversely affect them? This study attempted to address these issues.

1.5 Justification of the Study and Crop Selection

The present government intends to strengthen grassroots level credit organizations such as Farmer's Bank and Cooperative Banks to provide credit to smallholder farmers. Therefore, it is high time to study the reasons for limited access to formal credit while there is more access to informal credit so that remedial actions could be taken especially to strengthen Farmer Banks.

The study pays specific attention to adverse effects of interlinked relationships between credit and input and output of farmers growing commercial crops. It has to be noted that in Sri Lanka lot of changes in resource utilization, technological application, infrastructure facilities and production relationships have taken place under liberal

economic policies in the recent past. Due to a number of reasons the study has covered the credit situation of limited commercial crops namely big onion, chilli and potatoes. One reason for this emphasis is that lack of credit seems to be a severe constraint to those farmers who need large sums of money as operational capital compared to those growing other food crops. The other reason is that farmers of these crops depend on vendors as they need more and diverse inputs and to market their output. There is a substantial contribution by these crops to the economy in terms of national production, employment and household income. The importance of the above mentioned crops is as follows.

Chilli is extensively grown for green pods production. The average extent under chilli at present is around 14,083 ha, of which 2/3 is cultivated in *maha* season. Per-capita consumption of chilli in the form of dry chilli is estimated at 2.32 kg per annum and the national annual requirement of dry chilli is around 42,634 mt. The annual production of dry chilli is about 18,616 Mt. (Year 2007). Chilli contributes an average Rs.750 millions to GDP and creates employment of 14 million work days annually.

Big Onion is another important cash crop grown in the dry and intermediate zones of Sri Lanka. Though the national annual requirement is about 120,000 Mt, the average local production is 77,081(2007-2009). Annual per capita consumption of b'onion is 6.83 kgs. 146,623 MTs and 143,274 MTs in 2008 and 2009 respectively have been imported.

Potato is the most popular crop of upcountry farmers due to its high net return. At present potato is extensively cultivated in the districts of Nuwara Eliya and Badulla in paddy fields and high land during both "*Yala'* and "*Maha*" seasons. In 2008/2009 *Maha* 1,900 MTs of Potatoes were produced while in *Yala* it was around 34,250 MTs. The annual consumption is 5.6 Kg. 99,353 MTs and 99,622 MTs in 2008 and 2009 respectively have been imported.

1.6 Objectives

The main objective of this study is to examine the diversity of access to credit sources by selected commercial food crop farmers for their credit needs for cultivation and related issues.

The specific objectives are;

1. To examine the nature and magnitude of credit sources used by commercial food crop farmers for their cultivation activities

2. To investigate sources of their borrowings in view of adequacy, timeliness and cost

3. To investigate inter-relationships of credit with input and output markets and to find out their implications

4. To make recommendations in relation to smooth flow of credit to the smallholder farmers

1.7 Hypotheses

In the study following hypotheses were tested

1. The farmers cultivating potato, big onion and chilli are more dependent on informal credit sources than formal credit sources.

2. Informal credit sources are more popular because of low transaction cost associated with comparatively less cumbersome procedures and easy accessibility (not demanding fixed collaterals)

3. Interlinked credit transactions are more prominent among informal credit transactions.

4. Interlinked informal credit transactions unfavorably affect cash crop cultivating farmers compared to formal credit transactions.

1.8 Methodology

1.8.1 Data Collection Methods

The study is based on primary as well as secondary data. Primary data collection methods included a sample survey of cash crop farmers. Besides, interviews with key informants such as the leaders of farmer organizations, Krupanisas and officials of lending institutions such as banks, cooperatives, Death Donation Societies were conducted. Discussions with boutique owners and traders were also conducted. Secondary data included review of literature on credit such as research reports, journal articles, seminar papers and also credit records of the credit disbursing institutions.

1.8.2 Sample Size and Selection of Sample

The sample survey covered farmers who had cultivated each of three crops, B'onion, Chilli and Potato during 2009 *Yala* and 2009/2010 *Maha*. The total size of the sample is 180 farmers. The sample was drawn over several stages. In the first stage, the sample was equally distributed among different crops (60 farmers from each crop). In the second stage, the sample of each crop was equally distributed among two major crop producing districts (Table 1.1).

Table 1.1: Distribution of Sample by Districts

Crop	Districts	No. of farmers
Potato	Nuwara Eliya Badulla	30 30
Big onion	Matale Anuradhapura	30 30
Chillies	Anuradhapura Puttalam	30 30
Total		**180**

In the third stage, two types of Krupanisa Divisions were selected from each district considering the density of cultivation and locational set up (urban and rural). In the final stage, farmers were chosen randomly (the names of the selected Krupanisa divisions and other details of the sample are given in table 1.2)

1.8.3 Duration of the Study

Data related to credit situation and other aspects of concerned farmers were obtained covering 2009 *Yala* and 2009/ 2010 *Maha*.

Table 1.2: The Selected Krupanisa Divisions and Other Details of the Sample

Crop	District	Agrarian Service Centre	Krupanisa Division		No. of Farmers
			Urban	Rural	
Potatoes	Nuwara Eliya	Nuwara Eliya Mathurata	Meepilimana -	- Good wood	15 15
	Badulla	Walahamulla Bogahakumbura	Ampitidova -	- Kalubululanda	15 15
Big Onions	Matale	Dambulla Dambulla	Athuparayaya -	- Kalogahaela	15 15
	Anuradhapura	Ipalogama Palugaswewa	Dampalassagama -	- Wayaulpatha	15 15
Green Chillies	Anuradhapura	Ranorawa Nochchiyagama	- Dunudambuwewa	Kukulkatuwa -	15 15
	Puttlam	Palakuda Palakuda	Nawakkadu -	- Paneiadiya	15 15
Total					**180**

1.8.4 Organization of the Report

This report is organized into six chapters. The first chapter is the introductory chapter. It discusses the importance of farm credit specially for smallholder commercial food crop farmers in the country, the rationalization of conducting a study of this nature, identification of their credit issues, study objectives, hypothesis and the study methodology. The second chapter presents the review of literature that gives information on the historical process that led to form the present environment of farm credit including the state support for agricultural credit programmes, their failures and the change of government policy towards a market oriented policies and promotion of micro credit. The chapter three elaborates the socio-economic background of the farmers focused under the study. The fourth chapter presents the different credit sources of the concerned farmers while the chapter five deals with analyzing the benefits as well as shortcomings of each credit source in comparative terms. Chapter six presents the findings, conclusion and the recommendations of the study.

CHAPTER TWO

Literature Review

2.1 Introduction

This literature review on credit pays attention to aspects such as credit needs of smallholder agriculture in the country, the government's attempts to meet them, the level of the influence of credit programmes on fulfilling the credit needs of the farmers, the changing policies of the government in dealing with subsidized credit and encouraging micro credit / micro financing, the impact of those policies on farmers, expansion, role, benefits as well as disadvantages of informal credit. Mainly local research studies, articles and publications covered on these aspects were utilized for the review while some limited literature from other countries was also used.

2.2 Credit Need and Supply for Smallholder Agriculture

Supply of institutional credit to smallholder farmers in Sri Lanka was given priority by all the governments that came into power after 1950s. The technological advancement in agriculture that provided opportunity for farmers to increase their productivity was the major reason for this. Food shortages occurred on certain occasions and resultant high food prices encouraged using new technological innovations. As most of the food crops are grown on small size farms, it is recognized that without institutional credit most of the farmers would be unable to benefit from high yielding technologies which requires an increased expenditure on fertilizer and other agro chemicals (Sanderatne, 2002)

In this background increased volume of credit has been disbursed to the rural areas with expansion of not only the range of crops eligible for credit but also the institutional network disbursing credit (Sanderatne, 2002). In the initial years, government departments like Department of Food and Department of Agrarian Services handled the disbursing of credit to the farmers through cooperatives. But, after 1967 credit was supplied by state and private commercial banks under supervision of the Central Bank of Sri Lanka. The state sponsored credit schemes consisted of interest subsidies, general pardon for defaulters, credit guarantees and refinance facilities.

According to Attanayake (1993) the past experience shows that although a large number of formal sector institutions were involved in providing credit and a number of loan schemes were implemented they have not been able to make a significant impact on rural credit. Therefore, the level of dependency on informal sector for satisfying credit needs of the smallholder farmers has not significantly changed inspite of the involvement of financial institutions to provide credit. As he has explained further dependency on informal sector sources was 90% in 1957 and it was 70% in 1986/87 even after initiation of number of efforts to provide credit to rural sector. Although, credit schemes were sponsored by the state on a major scale during the past 30 years the coverage rarely exceeded 40% of farmers who were in need of credit.

According to the report on Farm Finance & Agricultural Development Seminars of Asian Productivity Organization (1988) there has been a significant increase in the volume of available credit; but these were still inadequate, particularly to fulfill the needs of the rural poor, subsistence farmers and small holders.

Considering the situation of the last two years, Wickramaarachchi (2001) mentions that with the implementation of financial liberalization policies, many financial institutions have emerged and extended their services to the rural sector of Sri Lanka. As a result, rural savings mobilization has developed very fast but the amount of loans granted to the rural areas has gradually declined with the increased resource outflow from the rural sector.

A high level of non-repayment is an embedded characteristic of the rural credit market. This inability to recover a significant proportion of loaned funds result in a declining number of credit worthy farmers, a financial burden to the government and imposes financial difficulties for banks. These difficulties have resulted in the restriction of providing subsidized credit to small farmers (Sanderantne, 2002). In the post-reform environment the government followed a market oriented approach regarding rural credit. As a result subsidized rural credit programmes gradually disappeared and the role of government was limited to providing necessary guidelines instead of direct control of programmes (Attanayake, 1993).

The Sri Lankan government has also gradually shifted from a state financed rural credit policy to a self- financing rural credit system. As in other countries with similar experiences the government is encouraging micro credit/micro financing systems via government institutions and programmes. As a result when the formal sector moved away from the rural credit market, a new semi-formal financial sector has emerged to fill the vacuum created by the conventional lending system. (Wickramarachchi, 2001). During the last decade the semi-formal financial sector has been able to capture a part of the agricultural credit market. Its strategy is disbursing agricultural credit in a more dynamic manner. Most of the organizations under this sector not only grant credit but also provide advice and input delivery system. As a result, the informal sector contribution in the rural credit market has gradually declined (Wickramarachchi, 2001)

The impact of above mentioned changes of the credit policy of the government (its market orientation and giving emphasis for micro credit / micro financing) at ground level are elaborated by one recent study about micro financing systems (Chandrasiri, 2006). According to that study the majority of small holder paddy farmers in Sri Lanka depend on credit from three different sources: institutional, semi-institutional and non-institutional. The emerging trends in the rural credit market are; the growing importance of service loans from non institutional sources such as tractor owners (preparation of land on credit basis). The emergence of semi institutional sources like death donation societies as well as pawn brokers as major suppliers of credit is also noteworthy. Service loans in the nature of services of tractors have become important due to the rapidly changing cultivation technology and the high cost and scarcity of labour and changing socio-economic system and values. The emerging situation in fact has increased the farmers'

accessibility to credit at relatively less transaction cost. But, the level of benefits they accrue is determined by a number of factors such as the locational set-up of the area; (Whether more open or inward) infrastructure facilities (accessible roads) and the number of credit suppliers available. To make farmers in less developed areas accessible to these facilities, government intervention by way of infrastructure development and promotion of credit supplies is of extreme significance.

The informal sector plays a significant role in the rural credit market, whatever its share in the rural credit market. According to Asian Productivity Organization informal credit is generally short-term in nature, involves very high interest rates and carries unfavourable terms. Yet it performs a valuable role in savings and credit activities because of convenience, easy procedure and almost on the spot availability. Thus many governments view informal credit as useful and their attitude has been one of permissiveness in spite of its shortcomings. It is further argued that if all the costs of institutional lending were to be accounted for, they may equal amounts charged by informal money lenders. (APO,1988). According to Wickramarachchi (2001) the main characteristic of the informal sector is the inter-locking nature of rural credit supply involving input output and consumer trade. Despite the high interest rates charged by the sector, there are many positive features such as low transaction cost and timely availability of credit which makes it essential in the rural credit market.

CHAPTER THREE

Cropping Pattern and Socio-Economic Features

3.1 Introduction

This chapter focuses on the cropping pattern of target crops and the general characteristics of each selected study area. Socio economic features of the households and the demographic features are also being discussed.

3.2 Characteristics of the Study Locations

3.2.1 Chillie-Kukulkatuwa (Ranorawa A.S.C. /Anuradhapura District)

Kukulkatuwa is a rural area 25 Kms away from Nochchiyagama town. Chillie is grown extensively and is considered as the main commercial crop cultivated in the area. Out of the seasons, *Maha* (Oct-Feb) and *Yala* (March-July) chillie is gown only in the *Maha* season. Besides; paddy, black gram, cowpea are grown in *Maha* season and gingerly is grown in the *Yala* Season. North-East monsoon rain is the main source of irrigation. Chillie is mainly grown in chena lands which are encroached state lands. Significant feature in this area is low cost of inputs. Farmers produce their own chillie seeds which are called "*Hen miris*". The lands are fertile and less prone to pest attacks, and limited fertilizer and agro chemicals are required for cultivation. Other than their own seeds, few farmers use KA2 variety supplied by the Department of Agriculture. Yield per acre is about 1250-1500kg and cost is around Rs.20, 000 per acre whilst gross income from chillie per acre is around Rs.50, 000.

3.2.2 Chillie-Dunudambuwewa (Nochchiyagama A.S.C. /Anuradhapura District)

This village is in Mahaweli H-5 area close to the Nochchiyagama town. Both in *Yala* and *Maha* chillie is cultivated as the main commercial crop. In the *Maha* season (Sep-Feb) chillie is cultivated in encroached state highlands. Chenas are not continuously cultivated every year. In *Yala* season chillie is grown in paddy fields under *bethma* cultivation system. KA2 is the main variety grown this area whilst hybrid varieties such as Dhilli hot and Dhilli Tropical are also grown by some farmers. As chillie is more labour intensive, mostly family labour is used. Other than chillie, paddy, low country vegetables such as okra, pumpkin, buchita and grains such as maize, cowpea are cultivated. Almost all the farmers cultivate gingerly in the *Yala* season on high lands. Average yield per acre of chillie is about 1500-2000kgs and the farmers are able to earn around Rs.200, 000 per acre by spending Rs.50, 000 per acre.

3.2.3 Chillie-Nawakkadu, Ilanthiadi (Palakuda A.S.C. /Puttlam District)

These two areas are somewhat similar in their characteristics and cropping pattern. Both areas contain sandy soil and are in the semi arid zone. Most of the farmers are very

innovative and cultivate in sandy soil with great effort. Main crops are chillie, red onion and tobacco. In addition, a number of varieties of vegetables and a few kinds of fruits are also cultivated. Irrigation is through tube wells as there is sufficient ground water. There is no clear season of *Yala* or *Maha* and cultivation could be done throughout the year. Even though sprinkler irrigation is used for many other crops, for chillie cultivation only ground water is utilized. As the evaporation and solar radiation is high in these areas, watering is done before sunrise and after sunset. Almost all the farmers cultivate high yielding hybrid varieties namely Dhilli-hot, Wijeya etc. High input cost has to be borne by the farmers when cultivating chillie because of high cost of seeds, intensive use of fertilizer, chemicals, application of organic matters and fuel for watering. As chillie is very labour intensive, labour cost is also high. Significant factor in this area compared to other areas is application of organic matter such as cow dung before land preparation. The cost per acre of chillie cultivation is around Rs.150, 000-200,000 and income is also high usually more than Rs.400, 000 per acre. From one acre around 15,000-18,000kg can be obtained. As the year round cultivation is done, the farmers are able to get a good price for their harvest due to the fact that they can supply them to the market at the off peak period.

3.2.4 Big Onion-Athuparayaya (Dambulla A.S.C. /Matale District)

Athuparayaya Krupanisa division was selected as an urban area in which big onion was excessively cultivated and was located close to the Dambulla town. Crops are cultivated both in *Yala* (May-Sep) and *Maha* (Oct-March) seasons depending on the rainfall pattern. In *Maha* season paddy is cultivated whist in the *Yala* season big onion is grown in paddy fields. In addition sweet potato, green chillie, capsicum, tomato, brinjal, okra, mae are also cultivated. Big onion is cultivated in farmers' own lands as well as colony lands under the Mahaweli development project. Most farmers use, local seeds and few use imported big onion seeds. In the month of December seeds are taken from planted big onion bulbs which are vernalized. 1kg of seeds can be obtained from 5kg of big onion bulbs. 2kg of local, seeds are required for an acre of land and a yield of 8000-12000 kgs can be obtained from one acre. Cost for one acre of big onion varies from Rs.125, 000 to Rs.150, 000. Most commonly cultivated local varieties were Dambulla Red and Galewela Light Red. Rampur was the cultivated imported variety.

3.2.5 Big Onion-Kalogahaela (Dambulla A.S.C. /Matale District)

Kalogahaela was considered as representing a rural area in Matale district in which Big onion is cultivated. Both in *Yala* and *Maha*, cultivation is done whilst intermediate season cultivation can also be observed. In the *Maha* season the main crop is paddy and in the *Yala* season big onions. Besides, sweet potato is cultivated along with brinjal and chillie. Water is obtained from minor irrigation schemes. Most of the farmers in Kalogahaela area are used to prepare their own Big onion seeds and yield around 8000-12000 kgs per acre could be obtained. Cost per one acre of Big onion is around 75,000-100,000. Optimum yield can be obtained when cultivated in April-May.

3.2.6 Big Onion-Dampalassagama (Ipalogama A.S.C. /Anuradhapura District)

In Dampalassagama village major commercial crop is Big onion. Paddy is grown both in *Yala* and *Maha* but big onion is cultivated only in the *Yala* season. Water is obtained from minor irrigation and agro wells. Farmers cultivate their own lands and colony lands under Mahaweli development project. Besides, chena cultivation is done in encroached state lands. Okra, capsicum, tomato, cucumber and long beans (*mae*) are the vegetables grown in this area. Yield around 8000-10000kg can be obtained per acre. Expenditure is Rs.75,000-100,000 per acre. Most farmers produce good quality seeds by themselves.

3.2.7 Big Onion-Waya Ulpatha (Palugaswewa A.S.C. /Anuradhapura District)

Waya Ulpatha is a rural village in Anuradhapura district but closer to Matale District border. Both in *Yala* and *Maha* crops are cultivated. In *Maha* season the main crop is paddy and other field crops are chillie, maize and many low country vegetables. In the *Yala* season big onion is the main commercial crop but low country vegetables are also cultivated. In the *Maha* season water is obtained through minor irrigation schemes and in *Yala* season through agro wells. Big onion cultivation is done in their own lands as well as colony lands, licensed land and even in encroached state lands. Most farmers use imported seeds whilst few produce their own seed requirements. Average yield of around 8000-12000 kgs can be obtained from one acre. The cost of production per acre is around Rs.60,000-90,000.

3.2.8 Potato-Meeplimana (Nuwara Eliya A.S.C. /Nuwara Eliya District)

Nuwara Eliya is one of the major potato cultivating districts and Meeplimana Krupanisa Division can be considered as an urban area in which potato is widely grown. In this area there is no specific season called *Yala* and *Maha* but from January to May/June is considered as *Maha* and July/August to December can be considered as *Yala*. Comparatively high rainfall and very low temperature is experienced in so called *Yala* season. Potato is cultivated only in the *Maha* season. During this period favourable climatic conditions prevail in this area with comparatively high temperature. Other than potato, one of the major plantation crops is tea. Highland vegetables such as carrot, beet, leeks, cabbage and lettuce are also extensively cultivated. Sizes of land owned by farmers are mostly limited to ½ an acre. Most farmers are, tenant cultivators. 16-20 kg of seed potato is used for one acre which is comparatively very high. The cost of production is around Rs.400,000-450,000 per acre and a major portion of this is spent on seed potato and the cost is a heavy burden to the farmers.

3.2.9 Potato-Good Wood (Maturata A.S.C. / Nuwara Eliya District)

Goodwood can be considered as one of the most rural villages in the District in which potato is cultivated. Infrastructure particularly road and transport facilities is very limited. This village is situated in a mountainous area and is vulnerable to wind cover. Potato is the main crop cultivated along with upcountry vegetables such as carrot, beans, tomato, leeks, cabbage, beet and radish. There is no particular season as *Yala* and *Maha* but

potato cultivation is done twice a year. When potato is cultivated in the rainy season more chemicals need to be applied due to exposure to high incidence of diseases such as bacteria wilt. Most of the farmers in Goodwood prepare their own seeds. In the month of May potatoes are bought from Nuwara Eliya seed potato farm and four months after planting seed potatoes are obtained. Potato and other crops are cultivated in the hilly areas which are far away from the village homestead. Water is obtained on shift basis and soil conservation methods are applied with the collaboration of Hadabima Authority. From one acre of land 6000-8000 Kg of potatoes can be obtained by spending Rs.150,000-200,000. The gross income gained is about Rs.250,000. At present it is believed that the yield has decreased due to infertility of soil and diseases.

3.2.10 Potato-Kalubululanda (Bogahakubura A.S.C. / Badulla District)

Kalubululanda is the potato grown rural village selected in the Badulla District. In this village *Yala* (May-Sep) and *Maha* (October-April) seasons are strictly observed. In the Maha season paddy is cultivated and in *Yala* potato is cultivated in the same fields. In the highlands main crops are vegetables such as beans, cabbage, tomato, capsicum and carrot whilst potato is cultivated particularly for seeds in the *Yala* season. Farmers obtain seed potatoes from Seetha Eliya seed potato farm and grow them on mountainous areas in the *Maha* season. So most of the farmers make their own seeds for the *Yala* potato cultivation whilst some buy seeds from the open market. It was said that at present yield has decreased. Farmers earn around Rs.250,000 spending around Rs.150,000 per acre. Yield in this area varies from 6,000 to 7,000 kg per acre. Water is received from minor irrigations schemes in *Yala* and from rains in *Maha*.

3.2.11 Potato-Ampitidowa (Walahamulla A.S.C. /Badulla District)

Ampitidowa is another potato growing village in the Badulla District which can be considered as an urban area. This area experiences dry climatic conditions and crops are grown in both *Yala* and *Maha* seasons. In the *Maha* season mainly paddy is cultivated and potato is cultivated in the same paddy lands in the *Yala* season. In addition, in the Maha season vegetables such as beans, cabbage, carrot, brinjal and tomato and seed potato are cultivated. Potatoes are used to obtain seeds for the Y*ala* season (main season). Water is obtained through rains and minor irrigation schemes. The farmers in Ampitidowa obtain an income around Rs.300, 000 per acre by spending nearly Rs.175,000 as cost of production. Another main income source of farmers is livestock. Cow dung and other organic manures are used as fertilizer.

3.3 Cropping Period

Following are the cultivating seasons of particular crops in the districts under study.

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Big Onion	May-Sep.	-	Anuradhapura
	May-Sep.	-	Matale

Chillie	Oct.-Feb.	-	Anuradhapura
	Dec.-April	-	Puttlam
	May-August	-	Puttlam
	Jan.-May	-	Puttlam
Potato	June-Sep.	-	Badulla
	Feb.-May	-	Nuwara Eliya

3.4 Socio-Economic Features

In this study altogether 180 household farmers cultivating three major commercial crops were interviewed. There were two categories of farmers; urban and rural, in each district. Following are the rural and urban areas representing each district and each crop. (Table 3.1)

Table 3.1: Selected Areas as Rural and Urban Divisions

Crop	District	Urban	Rural
Chillie	Anuradhapura	Dunudambuwewa	Kukulkatuwa
	Puttlam	Nawakkadu	Ilanthiadi
Big Onion	Matale	Athuperayaya	Kalogahaela
	Anuradhapura	Dampalassagama	Waya Ulpatha
Potato	Nuwara Eliya	Meepilimana	Goodwood
	Badulla	Ampitidowa	Kalubulu Landa

Urban, rural division in each district was considered by taking into account closeness to the nearest town. There were some significant characteristics differentiating rural urban divisions.

3.4.1 Labour Force

Population between 10-65 years of age was considered as labour force. Labour force in the sample was 83.58%: in rural areas 80.93% and in urban areas 80.93%. (Table 3.2)

Table 3.2: Labour Force

Crop	Rural			Urban		
	L. Force	Total Population	%	L. Force	Total population	%
Chillie	104	128	81.25	103	117	88.03
B'Onion	109	127	85.83	102	123	82.93
Potato	101	133	75.93	112	127	88.19
Total	314	388		317	367	

Source: HARTI Survey Data, 2010

3.4.2 Level of Employment

Those engaged in farming, those who assist in farming and private/government workers, self employees, trained workers, labourers, foreign employees, others who engage in income earning activities were considered as employed. Out of the total labour force 71.98%. (chillie), 71.09% (Big Onion) and 65.25% (potato) were employed and 2.9% (chillie), 1.42% (Big Onion) and 4.69% (potato) respectively were unemployed. (Table 3.3 and 3.4)

Table 3.3: Employment of the Labour Force

Crop	Rural			Urban			Total		
	Employ.	L.F.	%	Employ.	L.F.	%	Employ.	L. F.	%
Chillie	76	104	73.08	73	103	70.87	149	207	71.98
Big Onion	81	109	74.31	69	102	67.64	150	211	71.09
Potato	69	101	68.32	70	112	62.5	139	213	65.25
Total	226	314		212	317		438	631	

Source: HARTI Survey Data, 2010

Table 3.4: Unemployment of the Labour Force

Crop	Rural			Urban			Total		
	Un.E	L.F	%	Un.E	L.F.	%	Un.E.	L.F.	%
Chillie	3	104	2.88	3	103	2.91	6	207	2.9
Big Onion	0	109	0	3	102	2.94	3	211	1.42
Potato	1	101	0.99	9	112	8.03	10	213	4.69
Total	4	314		15	317		19	631	

Source: HARTI Survey Data, 2010

Table 3.5: Farming as Main Employment of the Respondents

Crop	Rural		Urban		Total	
	Main Emp.	%	Main Emp.	%	Main Emp.	%
Chillie	25	83.33	30	100	55	91.67
Big Onion	27	90	28	93.33	55	91.67
Potato	29	96.67	28	93.33	57	95
Total	81		86		167	

Source: HARTI Survey Data, 2010

According to the table 5, 92.77% of the total household's (180) were mainly occupied in farming.

3.4.3 Age Distribution

17.9% of the sample population was in 35<Age<=45 category. But almost a similar percentage was in two to seven age categories. Elder generation above 55 years and younger generation less than 17 were comparatively low.

Table 3.6: Age Distribution of the Households

	No.	**%**
Age <=5	61	8.07
5<Age<=10	70	9.27
10<Age<=18	124	16.42
18<Age<=25	97	12.84
25<Age<=35	118	15.63
35<Age<=45	129	17.09
45<Age<=55	106	14.04
55<Age<=65	40	5.3
Age>65	10	1.32
Total	**755**	**100**

Source: HARTI Survey Data, 2010

3.4.4 Household Size

Average household size of the sample population was 4.19 and it was almost same in all areas selected for the study.

3.4.5 Education Level of the Labour Force

As shown in the table 3.7 labour force in potato growing categories, was more educated. It was more marked in the urban population. The overall population percentage in the labour force who had an education only up to Grade 11 was least among people growing potato and more so in the urban areas. This percentage was highest among rural chillie-growing labour force (87.5%). As a whole, labour force in potato growing areas was more educated and was in the category of those who had passed Grade 11. Graduates and other categories were 54.03% whilst in chillie growing area this amount was 28.5% and in big onion growing area 25.12%.

Table 3.7: Education Level (below Grade 11) of the Labour Force

Crop	**Rural (%)**	**Urban (%)**	**Total (%)**
Chillie	87.5	53.4	70.53
Big Onion	80.73	67.65	74.41
Potato	53.47	39.09	45.97

Source: HARTI Survey Data, 2010

Table 3.8: Education Level (Passed Grade 11, graduates and other) of the Labour Force

Crop	Rural (%)	Urban (%)	Total (%)
Chillie	12.5	46.6	28.5
Big Onion	18.35	32.35	25.12
Potato	45.54	61.82	54.03

Source: HARTI Survey Data, 2010

3.4.6 Employment of the Second Generation

In this study, employment of the second generation included in labour force was also taken into consideration. The tables 3.9 and 3.10 clearly indicate that there was a trend among second generation to move out of farming. This is particularly significant in potato. 15.12% of the second generation of the labour force was involved in government and private sector jobs and lesser percentage (10.47%) was involved in farming or assisting in farming. That may be because potato farming is not attractive at present.

Table 3.9: Farming and Assisting Farming

Crop	Rural %	Urban %	Total %
Chillie	14.71	25	20.51
Big Onion	32.56	8.696	20.22
Potato	10.26	10.64	10.47

Source: HARTI Survey Data, 2010

Table 3.10: Government and Private Sector Jobs

Crop	Rural %	Urban %	Total %
Chillie	20.59	9.091	14.1
Big Onion	16.28	4.348	10.11
Potato	12.82	17.02	15.12

Source: HARTI Survey Data, 2010

3.4.7 Average Monthly Income of the Households

According to table 3.11 average monthly incomes of the households could be identified as expected income level. In rural areas majority are in the income category <=50000 and in urban areas majority are in the income category >=50000 except in Ampitidowa, Dunudambuwewa and Ilanthiadi.

Table 3.11: Average Monthly Income of the Households

Crop	Income level	Rural %	Urban %	Rural %	Urban %
		Kukulkatuwa	Dunudambuwewa	Ilanthiadi	Nawakkadu
	income<=50000	53.33	66.67	20	6.667
Chillie	income>50000	46.67	33.33	80	93.33
		Waya Ulpatha	Dampalassagama	Kalogahaela	Athuparayaya
	income<=50000	80	33.33	53.33	20
Big Onion	income>50000	20	66.67	46.67	80
		Kalubulu Landa	Ampitidowa	Goodwood	Meepilimana
	income<=50000	80	80	73.33	0
Potato	income>50000	20	20	26.67	100

Source: HARTI Survey Data, 2010

3.4.8 Type of Operational Land and Land Size

According to the survey in Anuradhapura chillie is cultivated in uplands, lowlands and in chena; in Puttlam only in uplands. In Anuradhapura big onion is cultivated in uplands(*Maha)* and low lands (*Yala*). In Badulla district potato is cultivated in uplands (*Maha*) and low lands(*Yala)*whilst in Nuwaraeliya potato is cultivated only in uplands.

Table 3.12: Type of Operational Land and Land Size

	Ext<=1 (%)			1<Ext<5 (%)		
Crop	Low land	Upland	Chena	Low land	Upland	Chena
Chillie	70.59	53.19	57.14	29.4	44.68	42.86
Big Onion	71.43	85.11		28.6	14.89	
Potato	88.89	74.6		11.1	25.4	

Source: HARTI Survey Data, 2010

According to the table 3.12 most of the lowlands in which chillie, big onion and potato were cultivated were less than 1 acre and was 70.59%, 71.43% and 88.89% respectively. On the other hand most of the highlands were also less than one acre. It should be noted that the selected sample areas were the major areas in which each crop was cultivated. On the other hand a higher percentage (44.68%) of upland chillie cultivation could be observed in lands of 1-5 acres. It was the same in the case of chenas.

CHAPTER FOUR

Credit and Sources of Credit

4.1 Introduction

This chapter pays attention to the extent of dependency of farmers on credit, credit types, sources and the average amounts of credit. Special focus will be on nature of credit under different scenarios such as urban sector and rural sector.

4.2 Dependency on Credit

Survey data reveals that majority of the sample farmers cultivating chilli, B'onion and potato had obtained credit for their cultivation requirements. The table 4.1 indicates the level of obtaining credit by sample farmers. Accordingly farmers cultivating B'onion, chilli and potato had respectively received 85, 90 and 95 percent credit. The districtwise data (table 4.2) of the sample indicate that more farmers' obtain credit for only some crops in certain districts; e.g. 97 percents of chilli and potato farmers in Anuradhapura and Nuwara Eliya districts had obtained credit.

Table 4.1: Farm Families which Obtained Loans by Crop

Crop	Obtained		Not Obtained		Total	
	No.	%	No.	%	No.	%
Chillie	54	90	06	10	60	100
B'Onion	51	85	09	15	60	100
Potato	57	95	03	05	60	100

Source: HARTI Survey Data, 2010

Obtaining credit under two different settings, namely urban and rural, where service infrastructures as well as marketing facilities are diverse.

Table 4.2: Farm Families which Obtained Loans by District

Crop	Obtained		Not Obtained	
	No.	%	No.	%
Chillie (A'pura)	29	97	1	3
Chillie (Puttalam)	25	83	5	17
B'Onion (A'pura)	25	83	5	17
B'Onion (Matale)	26	87	4	13
Potato (Badulla)	28	93	2	7
Potato (N-Eliya)	29	97	1	3
Total	**162**	**90**	**18**	**10**

Source: HARTI Survey Data, 2010

The table 4.3 indicates the level of obtaining credit by farmers cultivating crops under discussion in rural and urban locations. Accordingly the farm families in urban locations cultivating crops such as chillie and potato tend to obtain more credit than the farm families in rural locations cultivating same crops. In case of chillie 13.4 percent more and in case of potato 10 percent more urban farmers had obtained credit than the rural farmers. This is because in urban locations more modern technology is used to increase productivity than in rural locations.

Table 4.3: Farm Families which Obtained Loans by Rural/Urban Location

Crop	Rural		Total	Urban		Total
	Obtained	Not Obtained		Obtained	Not Obtained	
	%	%	%	%	%	%
Chillie	83.3	16.7	100	96.7	3.3	100
B'Onion	90.0	10.0	100	80.0	20.0	100
Potatoes	90.0	10.0	100	100.0	0.0	100.0

Source: HARTI Survey Data, 2010

4.3 Average Number and Size of Loans

The average number of loans obtained by a farm family is similar with regard to chilli and potato, namely 3 loans per farm family, while it is 2 loans per farm family in case of B'onion (table 4.4). This picture of the average loan size of the farm families in the sample does not change when compartmentalizing data into districts and rural / urban locations (table 4.5 and 4.6.).

Table 4.4: Average No. of Loans and Average Loan Amount per Farm Family by Crop

Crop	Average No.	Annual Average Amount (Rs.)
Chillie	3	245,527
B'Onion	2	70,926
Potato	3	179,051

Source: HARTI Survey Data, 2010

The average amount of loans obtained by farm family has changed with change of crop, district and from urban to rural setting. For example average amount of loans obtained by farm family for crops such as chilli, B'onion and potato was Rs. 245,527 Rs. 70,926 and Rs.179,051 respectively. The districtwise calculation of this data indicates a huge gap between the two districts for each crop.(table 4.5); For example, for chillie, this gap is 834 percent higher in Puttalam than in Anuradhapura and for B'onion, gap is 56 percent higher in Matale than in Anuradhapura and for potato, the gap is 205 percent higher in Nuwara Eliya than in Badulla. One of the major reasons for this higher average amount of loan obtainment has been the higher production cost of the farmers using relatively

more advanced cultivation practices in those districts. Another reason, especially for chillie, is that obtaining higher amount of credit by farmers in Puttalam District than farmers in Anuradhapura district is that they have to spend more for their cultivation which is being done on year round basis combined with some other crops such as red onion and tobacco.

Table 4.5: Average Number and Average Amount of Loans Per Farm family by District

Crop	Average No.	Average Amount (Rs.)
Chillie (A'pura)	3	50,529
Chillie (Puttalam)	3	471,726
B'Onion (A'pura)	2	55,200
B'Onion (Matale)	2	86,048
Potato (Badulla)	3	87,739
Potato (N'Eliya)	3	267,215

Source: HARTI Survey Data, 2010

Table 4.6: Average No. of Loans and Average Loan Amount per Farm Family by Rural/Urban Locations

Crop	Rural		Urban	
	Av. No.	Av. Amount (R.s.)	Av. No.	Av. Amount (Rs.)
Chilli	3	194,104.00	3	289,858.00
B'onion	2	64,667.00	2	77,968.00
Potatoe	3	89,523.00	3	259,627.00

Source: HARTI Survey Data, 2010

4.4 Type of Loans

Farmers in the study area had obtained credit by cash, kind (seed and other inputs like fertilizer and agro chemicals) and in the form of services (hired machinery) (table: 4.7 and table: 4.8). But proportions varied. For example over 60 percent of the total number of loans obtained by farmers was cash loans and their value was over 75 percent of their total loan value. This indicates that cash loans are predominant among food crop sector loans. Nearly 15 percent of the loans were material loans and their value was also of a similar percentage. The contribution of credit in kind to total credit folio is higher than in some Asian countries where farming is highly commercialized. For example according to Smith *etal* (qoted in Datta S.K.& Sriram M.S., 2002) about 75 percent of lending in the Sindh region of Pakistan is in kind which consist of seed, fertilizer and pesticides.

According to this study of the total number of loans obtained by the chillie and potato farmers, nearly 32 percent were material (input) loans(obtained in kind) due to greater requirements of inputs like fertilizer and agrochemicals. These had been mostly

borrowed from agro-input dealers and traders. However in terms of the value of loans obtained by the chillie and potato farmers the percentage of the value of material loans was lesser than the percentage of the value of cash loans (table 4.8). The loans obtained in the form of services (hired machinery) were lesser, both in number and value of loans: In terms of number of loans they were about 5 percent and in loan value less than one percent.

Table 4.7: Percentage of Different Type of Loans (Numbers)

Crop	Cash	Commodity	Service	Total
Chillie	63.5	32.1	4.4	100
B Onion	78.5	16.8	4.7	100
Potato	61.3	33.7	5.0	100

Source: HARTI Survey Data, 2010

Table 4.8: Percentage of Different Type of Loans (Amounts)

Crop	Cash	Commodity	Service	Total
Chillie	85.0	14.7	0.3	100
B Onion	92.0	7.1	0.9	100
Potato	78.5	21.0	0.5	100

Source: HARTI Survey Data, 2010

The district wise calculation of data related to cultivation loans in the sample indicates that farmers depend more on credit for cultivating some commercial crops in some districts in the form of material loans as well as cash loans. Tables 4.9 and table 4.10 indicate the percentages of number and amount of different types of loans obtained for cultivating different types of crops in different districts under study. Accordingly chilli farmers in Puttalam and Potato farmers in Nuwara Eliya have depended more on material loans (respectively 38 percent and 37 percent) out of the number of loans they had obtained.

Table 4.9: Percentage of Different Type of Loans (Numbers) by District

Crop	Loan Type			
	Cash (%)	Material (%)	Service (%)	Total
Chillie (A'pura)	65	28	07	100
Chillie (Puttalam)	62	38	-	100
B'Onion (A'pura)	71	21	08	100
B'Onion (Matale)	85	13	02	100
Potato (Badulla)	60	30	10	100
Potato (N-Eliya)	62	37	01	100

Source: HARTI Survey Data, 2010

Table 4.10: Percentage of Different Type of Loans (Amounts)

Crop	Loan Type			
	Cash (%)	Material (%)	Service (%)	Total
Chillie (A'pura)	74	23	03	100
Chillie (Puttalam)	86	14	-	100
B'Onion (A'pura)	86	12	02	100
B'Onion (Matale)	96	3.8	*neg	100
Potato (Badulla)	88	10	02	100
Potato (N-Eliya)	75	24.6	*neg	100

***** Less than 0.5

Source: HARTI Survey Data, 2010

Further calculation of data into rural and urban locations indicates that in general both number and amount of credit dependency on inputs in urban locations is higher than in rural locations. For example number of loans obtained for chillie, in urban locations as material loans is nearly 5 percent higher than in rural locations. The dependency on cash loans is higher in rural locations than in urban locations (Table 4.11 and Table 4.12). But this picture more or less changes with some crops. Dependency on cash loans in rural locations is nearly 10 percent higher than in urban locations. When amounts of loans obtained for both chillie and potato are calculated such a picture emerges very clearly (Table 4.12). One reason for the higher dependency on material loans in urban areas is the requirement of more inputs for chillie and potato. This has encouraged farmers even in urban locations to obtain their input requirements from traders on credit similar to the farmers in rural locations. Greater dependency on pawning as a way of financing agriculture has also become a factor for higher prevalence of financial credit in rural locations.

Table 4.11: Percentage of Different Type of Loans (Number) by Rural and Urban Locations

Crop	Rural				Urban			
	Loan Type				Loan Type			
	Cash	Material	Service	Total	Cash	Material	Service	Total
	%	%	%	%	%	%	%	%
Chillie	69.2	29.2	1.5	100	59.6	34.0	6.4	100
B'Onion	72.9	23.7	3.4	100	85.4	8.3	6.3	100
Potato	60.8	33.8	5.4	100	61.6	33.7	4.7	100

Source: HARTI Survey Data, 2010

Table 4.12: Percentage of Amount of Different Types of Loans by Rural/Urban Locations

	Rural			Total %	Urban			Total %
	Cash %	Commodity %	Service %		Cash %	Commodity %	Service %	
Chillie	95.3	4.6	0.1	100	79.2	20.4	0.4	100
B'Onion	88.3	11.0	0.7	100	96.4	3.5	0.1	100
Potato	87.5	11.4	1.1	100	75.6	24.0	0.4	100

Source: HARTI Survey Data, 2010

4.5 Sources of Loans

Tables No.4.13 and No.4.14 respectively indicate the percentages of the number and amount of credit obtained from different sources by farmers cultivating commercial food crops. Accordingly, in general, credit behaviour of the farmers cultivating all three crops such as chillie, B'onion and potato is the same. Overwhelming majority of farmers cultivating all three crops depend on formal sources to obtain credit. For example the percentages of the number of loans obtained from formal sources for chillie, B'onion and potato were respectively 93, 86 and 91 and the percentages of the amount of loans obtained from such sources were respectively 90, 92 and 95. The major reason for this over dominance of formal sector credit was the availability of many formal credit sources varying from sophisticated institutions like commercial banks to community organizations like death donation societies within closer proximity to the study villages and farm households.

Another study conducted about production and marketing of b'onion by farmers in Matale district by Rupasena (2008) also has found this predominance of formal credit sources among farmers cultivating b'onion for commercial purposes.. As indicated by that study as much as 70 percent of b'onion farmers' credit requirements were met from formal sources. Of these, government banks were in the topmost place among credit giving institutions. This information indicates greater dependence on formal sources than the level of their importance indicated by the Consumer Finance and Socio-economic Survey of 2003/2004. According to that survey only about 61 percent of the rural sector financial requirements were met by formal sector. In India the share of formal sources to rural credit market was less than this amount, i.e 57.2 for rural sector and 59.5 for cultivating activities (NSSO, 2003). In a country like Pakistan the share of institutional credit to rural sector is so small and it is between 12 to 15 percent (http://ngopost.org/story/**rural**-development-past-study-carrie). In African countries contribution of formal sources to rural credit market was less than this; e.g. In a survey carried out in Zanzibar, Krain (1998) has observed that only about 10 percent of the credit available to agriculture were met from formal sources. Commercial banks sources that provided credit to the sample farmers has been 72 percent. But as revealed by Consumer Finance and Socio-economic Survey of 2003/2004, the amount of credit granted by commercial banks to rural sector has declined from 51 percent in 1996/97 to 36 percent in 2003/2004.

4.6 Formal Sources

4.6.1 Commercial Banks

Among the favourite formal credit sources, the government commercial banks (Bank of Ceylon, Peoples Bank, National savings Bank etc.) are predominant in terms of number and amount of loans issued. More than 54 percent of the number and amount of loans for B'onion and potato cultivation and more than 52 percent of the number and 32 percent of the amount of loans for chillie cultivation have been from government commercial banks. The more flexible procedures (accepting two fellow bank account holder members of the credit obtaining farmers instead of requesting to keep fixed assets like lands) were being applied in granting loans than the procedures applied by private banks. The popularity of pawning gold by farmers as a method of obtaining cash loans and more popularity of government banks among village communities in granting pawning loans than private banks have been the main reasons for this phenomenon. Sufficient coverage of the credit requirements of the concerned crops, which are very high, by the commercial banks other than the informal lenders who preferred to lend very small amounts was another reason for this situation.

Table 4.13: Percentage of No. of Loans Obtained from Different Sources for Different Crops

Source	Chillie	B'Onion	Potato
Formal			
1. Government Commercial Banks	52.8	54.2	67.5
2. Private Commercial Banks	10.7	5.6	11.9
3. Other Banks	12.6	15.0	11.9
4. Non-Governmental Institutes	-	2.8	-
5. Community Organizations	16.4	8.4	-
Informal			
6. Money Lenders	2.5	1.9	0.6
7. Miscellaneous Vendors	3.1	6.5	2.5
8. Friends/Relations	1.9	5.6	5.6
Total	**100**	**100**	**100**

Source: HARTI Survey Data, 2010

Other banks: Regional Development Bank, Cooperative Bank, Farmer's Bank (Farmer's Revolving Fund) and Samurdhi Bank.

Table 4.14: Percentage of Amount of Loans Obtained from Different Sources for Different Crops

Source	Chillie	B'Onion	Potato
Formal			
1. Government Commercial Banks	31.9	68.8	59.3
2. Private Commercial Banks	26.7	5.4	30.0
3. Other Banks	29.7	10.4	6.1
4. Non-Governmental Institutes	-	4.0	-
5. Community Organizations	1.2	2.9	-
Informal			
6. Money Lenders	2.6	1.7	0.2
7. Miscellaneous Vendors	0.3	4.0	1.0
8. Friends/Relations	7.6	2.8	3.4
Total	**100**	**100**	**100**

Other banks: Regional Development Bank, Cooperative Bank, Farmer's Bank (Farmer's Revolving Fund) and Samurdhi Bank.
Source: HARTI Survey Data, 2010

The calculation of loan disbursement data as rural and urban (Table: 4.13 and Table: 4.14) indicates that the dependency on government commercial banks by farmers was somewhat higher among rural households than urban households especially among chillie and potato farmers: For example in case of chillie and potato, percentages of the amount of loans obtained by farmers in rural locations from government commercial banks were respectively 31 percent and 20 percent higher than the percentages of the amount of loans of the farmers in urban locations. But, in urban locations the farmers were more dependent on private commercial banks (Hatton National Bank, Commercial Bank etc.) for obtaining loans for their cultivation activities. In the case of the two crops, chillie and potato, the percentages of the amount of loans obtained by farmers in urban locations were respectively 10 percent and 30 percent higher than the percentages of the amount of loans obtained by the farmers in rural locations.

4.6.2 Development Banks and Micro Credit Institutions

The next important credit source in terms of number of loans and amounts obtained was other banks which included development banks such as Regional Development Bank, Cooperative Bank and participatory micro credit institutions such as Farmer's Bank (Farmer's Revolving Fund) and Samurdhi Bank. These banks have become popular in different areas in deferent ways. For example Regional Development Bank which follows flexible rules and regulations and easy methods of collateral (group guarantees) to grant loans have become popular with more accessibility to farmers growing all the crops discussed in this study. Samurdhi Bank that adopts less cumbersome procedures has become popular especially among potato growing low income families in the rural study locations in Badulla District. Popularity of Farmer's Bank is very limited among food crop growing commercial farmers due to low credit ceiling (Rs. 25,000/- per farmer

growing rice and other field crops) and some other factors like applying of group guarantee system for the security of its loan. It creates burdens for the members and giving material like chemicals and fertilizer as loans instead of cash are not beneficial for the farmers as their cost is higher than the open market prices. The Cooperative Rural Banks and SANASA Societies play a very minor role in disbursing credit due to their failures in the past in recovering loans given for cash crops.

4.6.3 Community Organizations

The community organizations such as Farmer's Organizations, Death Donation Societies, Women's Societies and other Welfare Organizations also play an important role in supplying credit especially to farmers growing chillie and B'onion. For example 16 and 8 percent of the number of loans obtained by chillie and B'oion farmers respectively in the sample have utilized community organizations for obtaining credit. In this respect Death Donation Societies were ahead of the Farmer Organizations as the former had a better opportunity to operate a sustainable revolving fund by recovering the loans. Except in case of death, on other occasions the loan money given to the members are collected with interest so that they are accumulated. Hence some death donation societies had been able to give bigger loans than, farmer organizations (Annex Table 2: Community Organizations Giving Credit). However, the role played by community organizations in terms of disbursing credit for the concerned crops seem to be very small when the amounts of credit given are taken into consideration. One specific observation is that the community organizations were not used as a credit source by potato farmers. As potato farmers needed large loans they did not pay attention to small loans given by community organizations. Therefore the community organizations in the area where potato is grown did not do well as credit giving institutions.

Table 4.15: Percentage of Number of Loans Obtained from Different Sources for Different Crops by Rural / Urban Locations

Source	Rural			Urban		
	Chillie	**B'Onion**	**Potato**	**Chillie**	**B'Onion**	**Potato**
Formal						
1. Government Commercial Banks	66.2	49.2	70.3	43.6	60.4	65.1
2. Private Commercial Banks	1.5	10.2	6.8	17.0	-	16.3
3. Other Banks	6.2	16.9	14.9	17.0	12.5	9.3
4. Non-Governmental Institutes	-	1.7	-	-	4.2	-
5. Community Organizations	16.9	8.5	-	16.0	8.3	-
Informal						
6. Money Lenders	1.5	1.7	1.4	3.2	2.1	-
7. Miscellaneous Vendors	4.6	6.8	2.7	2.1	6.3	2.3
8. Friends & Relations	3.1	5.1	4.1	1.1	6.3	7.0
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source: HARTI Survey Data, 2010

Other banks: Regional Development Bank, Cooperative Bank, Farmer's Bank (Farmer's Revolving Fund) and Samurdhi Bank.

Table 4.16: Percentage of Amount of Loans Obtained from Different Sources for Different Crops by Rural/Urban Locations

Source	Rural			Urban		
	Chillie	**B'Onion**	**Potato**	**Chillie**	**B'Onion**	**Potato**
Formal						
1. Government (Commercial) Banks	51.4	61.6	74.9	20.6	76.2	54.5
2. Private Commercial Banks	20.5	10.7	6.7	30.3	0.0	37.1
3. Other Banks	3.6	14.3	13.0	44.9	6.4	3.9
4. Non-Governmental Institutes		1.4			6.6	
5. Community Organizations	1.6	3.1		0.9	2.7	
Informal						
6. Money Lenders	2.0	2.2	0.8	3.0	1.2	
7. Miscellaneous Vendors	0.3	4.2	1.7	0.2	3.8	0.8
8. Friends/Relations	20.7	2.5	2.9	0.1	3.2	3.6
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source: HARTI Survey Data, 2010

Other banks: Regional Development Bank, Cooperative Bank, Farmer's Bank (Farmer's Revolving Fund) and Samurdhi Bank.

4.7 Pawning Gold

The study findings revealed that among the food crop growing commercial farmers, pawning gold was a popular method of obtaining financial loans especially from government as well as private commercial banks and also from private pawn brokers. This was so much popular among farmers growing all three crops because of the quickness in obtaining loans within a very short period of time (two three hours) with simple procedural requirements. As revealed in discussions with farmers and key informants many of the farmers including those who did not like to obtain bank loans used to purchase gold up to a sizeable value for the purpose of pawning in case of urgency. The tables no. 4.17 and no. 4.18 indicate the percentages of the number and value of pawning loans from total loans of the sample. Accordingly more than 25 percent of the number of loans and 35 percent of the amount of loans for all three crops; chillie, B'onion and potato had been obtained by pawning gold. The calculation of data as rural and urban indicates that except for B'onion, for other two crops a greater percentage of farmers in rural locations had obtained loans by pawning gold than in urban locations. This was because this method was an alternative to find finance by rural farmers who face lot of difficulties (such as visiting several times to the banks and presenting collaterals etc), in obtaining cultivation loans from commercial banks, than urban farmers. The annex table 1 indicates the results of a quick assessment done by the research team about pawning done in year 2009 by the potato farmers in the main commercial bank branches in Nuwara Eliya and Badulla districts. They had obtained 21,907 pawning loans to the value of Rs. 1.048 billion.

Pawning gold as a popular method among the cash crop growing farmers has been highlighted by another credit study of HARTI (Chandrasiri, 2005) as an emerging phenomena among paddy farmers in Anuradhapura District But, this was not so much popular at the time of study in 2001. However even at that time about 8 percent of paddy farmers' credit had been obtained through mortgaging gold.

Table 4.17: No of Loans Obtained by Pawning Gold and Percentage Out of Total Loans in the Sample

Crop	Location		Total
	Rural	Urban	
Chillie	21 (32%)	21 (22%)	42 (26%)
B'Onion	12 (20%)	19 (40%)	31 (29%)
Potato	27 (36%)	23 (27%)	50 (31%)

Source: HARTI Survey Data, 2010

Table 4.18: Amount of Loans Obtained by Pawning Gold and Percentage Out of Total Loan Amount in the Sample

Crop	Location		Total
	Rural	Urban	
Chillie	3,196,000 (65%)	1,558,000 (19%)	4,754,000 (36%)
B'Onion	521,000 (29%)	1,031,000 (60%)	1,552,000 (44%)
Potato	1,610,000 (67%)	2,142,000 (27%)	3,752,000 (37%)

Source: HARTI Survey Data, 2010

4.8 Informal Sources

Informal sources have played a minor role with respect to disbursing credit to the commercial farmers growing food crops. 5 to10 percent of the number and amount of the credit for those crops were provided by informal sources (Tables 4.13 to 4.16). Among these sources friends and relations, miscellaneous types of vendors and money lenders have played an important role in supplying credit. The discussions with sample farmers and key informants revealed that the farmers who had no proper collaterals and others who did not want to waste time in adhering to procedural requirements to obtain loans were more prone to obtaining loans from these informal sources. Among miscellaneous vendors were agro input suppliers, economic center traders, boutique owners (village collectors) itinerant traders and tractor owners. Purchasing seed, fertilizer and agro chemicals on loan to be paid back in cash or in kind after their harvest was a practice of some farmers especially the poor in all study locations. Informal credit was more popular in rural locations than in urban locations. Among these informal lenders economic center traders were popular especially among B'onion farmers in Matale and Anuradhapura districts. The money lenders also play a similar role in both rural and urban locations growing all crops, except potato in urban locations. The contribution of money lenders to

credit requirements of the farmers were 3 percent or less. The findings of the Consumer Finance and Socio-economic Survey of 2003/2004 also reveals that the contribution of the money lenders to rural credit market is 8 percent which indicates a decrease from the earlier situation.

CHAPTER FIVE

Different Credit Sources and Their Benefits

5.1 Introduction

This chapter focuses on analyzing positive and negative aspects of credit sources of commercial crop farmers. The interest rates, transaction costs as well as credit costs (interest rate and the transaction cost together) and factors that farmers give priority to different credit sources were taken as important parameters in coming into conclusions about different credit sources. In this respect the chapter pays special attention to interlinked credit transactions as well as to pawning. In addition, the problems of the farmers regarding Farmer Bank Credit Schemes and their suggestions are presented.

5.2 Institutional Sources

5.2.1 Commercial Banks

The institutional (or formal) credit sources such as commercial banks, other banks (such as Farmer Banks, Samurdhi Banks, and Cooperative Banks) and Community Organizations have nominal interest rates on cash loans as well as for pawning. These common interest rates on loans of course vary for different (or their individual) credit programmes. For example the interest rate of the new Comprehensive Rural Credit Scheme (of the Central Bank of Sri Lanka) implemented by both state as well as private banks was 12 percent during the period under discussion (in year 2009). The interest rates of the individual agricultural credit schemes of each bank were different; e.g. 25 percent for the agricultural loans issued from the funds of the Seylan Bank.

The farmers' transaction costs in obtaining loans under some credit schemes like NCRCS from different banks differed as credit receivers had to bear different costs for different type of procedural requirements and, rules and regulations adopted by different banks. For example the government banks like Peoples Bank and Bank of Ceylon followed flexible methods in dealing with collaterals like accepting two fellow farmers who had accounts in the same bank as sureties, while Hatton National Bank, Commercial Bank and Seylan Bank required valuable fixed assets or acceptable personal guarantees. However, the government banks had made crop insuring compulsory while the private banks did not make similar demands. As farmers did not benefit from insurances in the way they operated, these private banks did not make insurance compulsory for cultivation loans.

To obtain a loan, the borrowers had to visit a number of times to the commercial banks to complete the procedural requirements. On average this was three times. Therefore the borrowers had to wait a number of days to obtain a loan (from the date of obtaining the loan application until the date of receiving loan money) from commercial banks. This duration changed according to the bank (Table 5.1). For example the government banks like Bank of Ceylon and People's Bank took 14 days and 17 days respectively. Some

private banks like Commercial Bank had reduced it to 9 days. Community organizations like Farmer Organizations and Death Donation Societies also required 9 days and 5 days respectively. Obtaining loans by mortgaging gold was the easiest in terms of duration. One day was sufficient to obtain loans from different types of lenders involved in trading business. As revealed by the same table, the borrowers had to spend a long period to obtain a loan especially from the commercial banks. This time was shorter in some private banks like Commercial Bank (02 hours) and Hatton National Bank (05 hours) compared with government banks like Bank of Ceylon (13 hours) and Peoples Bank (12 hours). However to obtain mortgage loans, it took 03 hours only while only 02 hours were needed to obtain loans from private money lenders as well as collectors. The bus fares and additional expenses for food also had to be borne by the borrowers. These expenses were higher in rural locations compared with urban locations. Borrowers in rural locations had to bear more expenses as they had to travel from far away places than the borrowers in urban locations.

Table 5.1: Days, Time and Cost in Obtaining Rs.100/- for a Six Months Loan from Different Sources

	Source	Days taken	Hours spent	Cost (Rs)
1	Bank of Ceylon	14	13	10
2	People's Bank	17	12	10
3	Provincial Development Bank	20	11	10
4	Hatton National Bank	14	05	09
5	Commercial Bank	09	02	06
6	Samurdhi Bank	09	04	13
6	Cooperative Bank	27	13	14
7	SANASA	17	04	10
8	Farmers Organization	09	04	19
9	Death Donation Society	05	03	24
10	Money Lenders	02	02	33
11	Collectors	01	02	16
12	Economic Center Traders	01	03	01
13	Agro Input Suppliers	01	04	06
14	Mortgaging Gold from Different Banks	01	03	09

Source: HARTI Survey Data, 2010

Notable:

1. Days taken is calculated considering the period between obtaining the application and receiving credit into hand.
2. Information related with farmer bank is not presented because the case of loans reported under it was not enough to do calculations.

The total expenditure (the cost of credit) to obtain Rs.100 (for six month period) from government commercial banks such as Bank of Ceylon and Peoples Bank and some of the popular private commercial banks like Hatton National Bank was more or less similar, between Rs.9 and Rs.10 (Table 5.1). But the credit cost was low in some

government banks like Lanka Putra Bank (Rs.4.93) and private banks like Commercial Bank (Rs.5.84). The disaggregating of data as urban and rural locations indicated that when obtaining loans from both government as well as private banks, the loan expenditure for farmers in rural locations was about Rs. 4 higher than for farmers in urban locations who obtained loans from the same banks (table 5.2).

Table 5.2: **Expenditure in Obtaining a Short Term (six month) Loan of Rs.100 from Different Commercial Banks in Rural and Urban**

Bank	Location		
	Rural (Rs.)	**Urban (Rs.)**	**Both (Rs.)**
Government			
1. Bank of Ceylon	12.59	8.30	10.44
2. Peoples Bank	11.44	7.75	9.59
3. Lanka Putra Bank	-	4.93	4.93
Private			
1. Hatton National Bank	10.52	6.70	8.61
2. Seylan Bank	-	19.81	19.81
3. Commercial Bank	-	5.84	5.84

Source: HARTI Survey Data, 2010

5.2.2 Other Banks

The expenditure in obtaining Rs.100 from the other banks like Rural Cooperative Banks, Regional Development Banks and Samurdhi Banks was relatively higher than from the commercial banks, although those banks were closer to the People. One reason for this was the comparatively higher interest rates of these banks than the interest rates of commercial banks, e.g. 12 percent was charged by commercial banks while the Cooperative Banks charged 22 percent and Samurdhi Banks charged 16 percent. Except Samurdhi Banks that takes only 9 days to transact a loan, the other two needed more time; 27 days by Cooperative Banks and 20 days by Regional Development Banks(5.1). The time spent in obtaining a loan under Samurdhi Bank was very short, 4 hours but in the other two banks more time was spent and it was more or less similar to the time spent in commercial banks, e.g.12 hours were spent in Cooperative Banks and 11 hours in Provincial Development Banks. However, the expenses to borrow Rs.100 as a six month loan under Samurdhi Bank was very high; Rs. 12.55. This rate was somewhat higher in rural locations, Rs.15.55. That expenditure under Cooperative Banks was Rs.13.69 and under Provincial Development Banks was Rs.10.08. Of the micro credit institutions, the Farmer Bank can provide credit at a very lower level if it operates as it has been designed. The KRUPANISA has to handover the applications at a meeting of the farmer organization especially called for the purpose of arranging credit and collect the filled in application at his office premises or home located in the same village and inform the farmers to go and collect their loan from the Farmer Bank when the loan is approved. Under this process the only expenditures the farmer has to bear is the stamp fees for the

loan, the cost for time spent on behalf of participating the farmer organization meeting, getting signatures of the group guarantors, getting approval of the farmer organization and collecting the loan at Farmer Bank and the bus fare spent to attend there. According to these procedures the loan applicant is expected to go out of village only once, for collecting the loan from the Farmer Bank. But, this loan scheme is operated in this manner in places where farmers are well organized and the KRUPANISA is more helpful to the farmers. Hence, the cost borne by the framers to obtain loans from farmer bank greatly vary from place to place. Under this study that cost was not calculated because the cases of Farmer Bank loans reported from survey was limited to only five.

5.2.3 Community Organizations

The community organizations that gave credit charged higher interest rates for their credit in order to develop their credit fund. Discussions with leaders of community organizations such as farmer organizations and death donation societies revealed that they charged a monthly interest varying from 3 to 5 percent. But, the number of days taken to release credit (in many cases 5 to 9 days) and the time farmers had to spend for obtaining a loan (3 to 5 hours[1]) were low compared with other institutional sources discussed here. The total expenditure that had to be incurred for obtaining a short term loan (six month loan) of Rs.100 was relatively higher because of the higher interest rates they applied for providing credit. The expenditure of their loans changed from Rs.19 to Rs.25 for Rs. 100/-.

5.2.4 Pawning Gold

The nominal interest rate of pawning gold changed from 15 percent in government commercial banks to 24 percent in Cooperative Banks which was higher than the interest rate of NCRCS loans. Those loans could be obtained within a day and an average of 3 hours was spent on procedures. Because of the very short period taken to obtain a loan, the transaction cost was not so high. The expenditure to obtain Rs.100/- varies from Rs.9 to 11 in different institutions. But as the time taken was very short, farmers feel that this method of financing was very convenient.

5.3 Non Institutional Sources

5.3.1 Money Lenders

The interest rates of personal money lenders were as high as 66 percent per year. In the study area there were some professional money lenders who charged up to 240 percent per year. The total cost to borrow Rs.100 for a period of six month , was about Rs.33.36.

[1] This time was spent for participating at a general meeting of the farmer organization that was held to take decisions in dealing with credit in the particular season and also for the purpose of handing over and collecting credit applications.

5.3.2 Input Loans

The input as well as service loans obtained from agro-input dealers, boutique owners, economic center traders, other traders and tractor owners had no interest rates so that they appeared as interest free loans. But most of them had hidden interest rates[2]. At the same time majority of credit transactions done with the former credit sources were interlinked with either input market or output market or with both.

The food crop growing commercial farmers who were economically badly off, and had no collaterals to obtain loans from commercial banks tended to obtain materials / inputs like seeds, fertilizers and chemicals from agro-input dealers, boutique owners and traders on credit basis with agreement of paying back later after selling their harvest. Some of these input credit transactions were also linked with output market because some traders who provided inputs on credit expected to purchase the produce of such borrowers. In certain cases these lenders got the consent of their borrowers to sell their product to them. In many cases although there was no consent, the borrowing farmers were compelled to sell their products to their lenders. In addition to the local agro-input suppliers, the traders coming to villages from outside and the traders in economic centers like Dambulla and Nuwara Eliya used to provide input credit with the expectation of purchasing those farmers' products. The percentage of interlinked credit transactions which prevailed with only input market was 77 percent and with both input and output market was 23 percent. A study conducted in Punjab by Gill has indicated that informal credit interlinked with input as well as output market was stronger there than the level indicated by this study. As much as 84 percent of credit transactions in Patiala, one of the study villages in his study was interlinked with input market while 65 percent of such credit transactions were interlinked with output market (Gill, 2004). Bell and Sri Nivasan also have revealed that almost 60 percent of the total amount borrowed in Punjab was associated with transactions with other markets (Quoted in Gill, 2004).

As revealed by survey information, in case of most materials / inputs credit transactions the farmers were not able to obtain the normal discount which is given to those farmers who purchase the same materials / inputs (by cash) from same agro input dealers and boutique owners. As normally happened there was not much adverse influence of credit transactions interlinked with output market on price of farmers because the farmers were able to obtain the market price for their products. The traders had to pay the market price for such farmers to attract them towards them. There were very limited percentages of such credit transactions that farmers lost some earnings as they did not receive the prevailing price in the market.

Although there was a hidden interest for material / input loans it was not so high. Out of 123 material / input loans only 93 (76 percent) had a hidden interest. Of this 93, 5 (5%) had an average interest of 4.67% and 12 (13%) had an average interest of Rs.6.66 and 76 (82%) had an average interest of 12.98% Of the total material / input loans 30 (24 percent) had no any interest. The objective of the economic centre traders to obtain

[2] When materials like agrochemicals and fertilizer were obtained on credit, the credit receivers are not given the due discounts. This is considered as hidden interest.

produce of b'onion and potato farmers had led them to give interest free commodity loans to attract them. They had given inputs on credit to be recovered from farmer's produce when their products were marketed through the traders' stalls. The researcher's observations revealed that at auctions in market places the borrowers also got the same price as the non borrowers. These traders also gave the normal discount of the input price to farmers on occasions they obtained agro inputs on credit. The other traders, boutique owners and agro-input suppliers also gave the real price that the farmers would receive. Otherwise the farmers would have found alternative ways to sell their product. Under better communication and infrastructure facilities and more market outlets there were many alternative ways for farmers to sell their product. Hence, under these output market transactions farmers were not adversely affected. However, because of these transactions, they lost their independence to sell the product to an open market for a pre-agreed price as done by some limited farmers.

5.3.3 Service Loans

Some of the service loans also appeared to contain hidden interest. Out of the 20 service loans reported from the sample, only 5 (25 percent) contained hidden interest. Even that was 8.45 percent which means Rs.8.45 to be paid to borrow Rs.100/-. This interest rate was there as service obtainers did some payments that were not taken into account. When preparing the paddy land on certain occasions the service obtainers had to bear the diesel cost of the tractor and this was not returned. But 75 percent of the service loans did not contain any interest.

5.4 More Effective Credit Sources

Comparisons of different credit sources with each other indicate certain positive as well as negative aspects of each credit source. For example the credit costs of the government as well as private commercial banks for cash loans were relatively moderate level, 6 percent to 10 percent but the amount of credit obtainable from them were very high, eg. Rs.140,000 per farmer for potato cultivation under NCRCS. The time needed to obtain their loans was also moderate; about 15 days. Although the Cooperative Banks and Samurdhi Banks were closer to the people, and functioned with greater orientation towards the upliftment of downtrodden people, the cost of their credit (12 percent to 15 percent) was higher than the credit cost of commercial banks. The duration to release credit was also very high (20 to 27 days).

The cost of the credit of community organizations was also very high as their interest rates were also very high. Their credit cost was Rs.19 to Rs.24, but the loan was released in a very short period (5 to 9 days). Also very short time period (2 to 3 hours) was spent for processing loans. Compared with these, the cost of the credit of personal money lenders was very high (about 66 percent), but their credit could be obtained within a very short period, perhaps by the first visit itself.

Compared with all above sources, the cheapest and quickest credit source for those who had no collaterals was input loans. Some of these credits were interest free (especially the

credit obtained from economic centre traders). But, the amounts given were small and also the farmers had to mutually agree with the traders to supply their product to lending traders. Some of the commodity loans obtained from traders, boutique owners and agro-input suppliers consisted of a moderate hidden interest varying from about 7 percent to 13 percent. Even under this credit system, the farmers' products were supposed to be provided to the lenders although the conditions were not strict.

Even under above conditions the total cost to obtain informal credit was less than for formal credit. For example to obtain Rs.100/- from state commercial banks for a period of six months a total of Rs.10.00 had to be borne by the farmers (this covers interest rates as well as transaction cost). But to obtain Rs.100/- from Economic Centre traders, the farmers had to pay only Rs.1/- and to obtain same amount from agro-input suppliers payment was only Rs.6/-. The higher cost for formal credit has been a result of their higher transaction cost that has also been highlighted by Dutta.S.K. and Sriram M.S.(2002) and Gill(2004) from credit experiences in Punjab in India. According to Gill who examined the credit market of Punjab farmers in India, the interest on formal credit was higher than on informal credit when additional costs to obtain credit such as frequent visits to the institutions, submission of documents, various fees etc. are counted (Gill, 2004).

Most of the service loans were interest free and beneficial to the farmers, but they were limited to obtaining service to prepare lands.

Compared with all sources of credit, pawning was considered the most beneficial and easiest way of obtaining credit by many of the farmers who possessed gold. Although, their cost was somewhat high as much as 15 percent to 20 percent, pawning was the most useful way to obtain money for financing their production activities. The time spent for pawning was shorter and substantial amounts could also be obtained depending on the value of the pawned article.

5.5 Problems of Farmers

The study tried to identify the credit issues of commercial crop farmers. As revealed by farmers (Table: 5.2) who obtained loans from institutional sources, 12 percent had no problems at all. The major problem faced by as much as 13 percent of the sample farmers was the long period of time taken to obtain a loan. The next important problems were the difficulty of finding guarantors (9 percent) and not giving the requested amount of credit (7 percent). The payment of premiums for insurance as a rule for obtaining credit was an issue for 4 percent of the farmers because they were not interested in joining insurance schemes. Although the group guarantee was accepted as securities of loans under government commercial banks it has become a problem for some of the loan receivers(2 present) when some members of the group did not repay their loan. Another 10 percent of sample farmers gave different constraints they faced in obtaining credit from commercial banks and they include strict procedures like filling number of forms, bank officers not caring about farmers needs, strict rules and regulations regarding loan repayment and the long distance to the banks etc.

Table 5.3: The Problems Faced by Farmers when Obtaining Loans from Institutional Sources (Government and Private Banks)

Difficulties	Total No.	%
1. No constraints	21	12
2. Long time taken to obtain loans	24	13
3. Difficulty in finding guarantors	17	09
4. Not giving the required amount of credit	12	07
5. Compulsory payment of the insurance premium and dissatisfaction about the remunerations paid	07	04
6. Negative effects of group member's reluctance to repay loans	03	02
7. Difficulties in producing clean land titles and income tax documents	06	04
8. Other reasons	18	10

Source: HARTI Survey Data, 2010

Notable: Percentages and totals are based on responses of respondents, hence the total of the responses are more than hundred because some respondents have responded more than once.

As the Farmer Bank appeared as an institution that can fulfill the credit needs of the farmers within a short time and at low cost under easy procedures the study attempted to find out why farmers had not benefited from it. According to the sample data only 58 percent of the farmers were members of the Farmer Bank. It was questioned as to why other farmers had not obtained its membership. As much as 64 percent of them mentioned that they did not know well about the Farmer Bank and its benefits (table 5.3). Forty one percent of farmers mentioned that there was no need to get loans. About 24 percent mentioned that they did not join it because it was not functioning well. The inability of obtaining material loans in time (8 percent) and insufficient loan amount (5 percent) and difficulties faced in qualifying to obtain loans(4 percent) had been the other affecting factors.

Table 5.4: The Reasons for Not Obtaining Membership of Farmer Bank

Reasons	Total No.	%
1 Unaware of the benefits of farmer bank	49	64
2 No need of getting loans	31	41
3 Farmer Bank is not functioning properly	18	24
4 Cannot obtain material loans as and when needed	6	8
5 Insufficient loan amount	4	5
6 Unable to spend time for procedures to obtain loans	4	5
7 Can't qualify to obtain a loan (need to have an agro well) etc.	3	4
8 Farmer Bank is not established in a convenient place	1	1

Source: HARTI Survey Data, 2010

Percentages and totals are based on the responses of the respondents and the total of percentages is not 100 because some respondents have given more than one reason

There were a number of reasons for not obtaining loans from Farmer Bank by those farmers who had obtained membership (Table 5.4). According to the responses of farmers the difficulty of transactions (15 percent) within a small group system was the major reason. The interviews of the farmers also revealed that some farmers had faced severe problems in obtaining credit as fellow members of their group had failed to repay their loans. The insufficiency of the maximum loan amount given by Farmer Bank was the other factor mentioned by some of the cash crop farmers (12 percent). Even for high value crops like potatoes and b'onion, the Farmer Bank gave only Rs.25, 000/- for cultivation purposes. As much as 9 percent mentioned that there was no need of loans. Meanwhile 6 percent said they did not know about the benefits obtainable from the Farmer Bank although they were already its members. For 5 percent the difficulties of visiting to the Farmer Bank within a shorter period had affected not to take its benefits. As much as 10 percent of the farmers had mentioned other reasons which include doubts about the quality of the materials given as loans, inability of taking a loan in needed time, the requirement of getting qualifications by depositing money in advance etc.

Table 5.5: Reasons for not Obtaining Loans while Having the Membership

Reasons	Total No.	%
1. Transactions are not easy to be done within group system	15	15
2. Loan amount granted by the Farmer Bank is not enough	12	12
3. No need of loans	9	09
4. Unaware of the benefits of Farmer Bank	6	06
5. Farmer Bank is not established in a convenient place to obtain loans in a short period	5	05
6. Unable to obtain cash/material loans as an when needed	4	04
7. Do not like to be indebted	4	04
8. It is compulsory to obtain the loan by material wise	4	04
9. Has obtained loans from other institutions	3	03
10. Farmer Bank is not functioning properly	3	03
11. Other reasons	10	10

Source: HARTI Survey Data, 2010
Percentages and totals are based on respondents and the total of percentages is not 100 because some respondents have given more than one reason

Asked about the suggestions (Table 5.5) to improve the Farmer Bank Agricultural credit scheme, a larger percentage of the sample farmers (20 percent) mentioned the importance of identifying different credit needs of the sample farmers and fulfilling them. As much as 19 percent mentioned the importance of creating an awareness about the Farmer Bank and its benefits among the farmers. Another important suggestion was increasing its loan amounts given for cultivation purposes. 16 percent of the farmers in the sample mentioned the need for increasing the amount of the loan.

Table 5.6: Recommendations to Upgrade the Farmer Banks

Recommendations	Total No.	%
1. Should identify credit requirements of farmers and fulfill their needs efficiently (for seeds, modern equipments, to involve on different products etc.)	36	20
2. Improve awareness about the Farmer Bank and its benefits among farmers	35	19
3. The loan amount should be increased	28	16
4. Farmers should be provided individual credit without group credit	18	10
5. Loan should be given on time	12	7
6. Credit should be given with low interest as cash	13	7
7. Fertilizer and chemicals should be supplied at subsidized prices to the vegetable farmers	10	6
8. Farmer Bank should be established in a convenient place	9	5
9. Other reasons	5	3

Source: HARTI Survey Data, 2010

Percentages and totals are based on the responses of the respondents and the total of percentages is not 100 because some respondents have given more than one reason

CHAPTER SIX

Summary of Findings and Recommendations

6.1 Introduction

This chapter presents summary of findings of the study with policy recommendations regarding the issues identified and for the smooth functioning of the credit programmes in relation to farmers cultivating food crops on commercial basis.

6.2 Summary of Findings

1. A great majority of food crop growing commercial farmers depended on credit to finance their production activities. Accordingly, 85, 90 and 95 percent of farmers who cultivated B'onion, chilli and potato respectively had obtained credit. These indicate that credit is still an important input for cultivation activities.

2. About 10 percent more farmers in urban locations cultivating crops such as chilli and potato had obtained credit than their rural counterparts as they had applied more modern technology and practices.

3. The average number of loans obtained by each farmer in case of chillie and potato was 3 while in case of b'onion it was 2. This picture did not change from rural to urban level.

4. Average loan amount obtained by farm families changed with crop, district and rural-urban setting. It was Rs.261,128 for chilli, Rs.70,629 for B'onion and Rs.177,477 for potato. In case of chilli it was 834 percent higher in Puttalam than in Anuradhapura. In case of b'onion 56 percent higher in Matale than in Anuradhapura and in case of potato 205 percent higher in Nuwara Eliya than in Badulla. This greater gap for credit obtained for same crop between two districts was due to change of cost of production associated with differentiation of technological adaptations and farming systems.

5. The farmers cultivating all three crops (chilli, B'onion and potato) had obtained three types of credit as cash, kind (materials) and services. Over 61 percent of the number and over 79 percent of the amount of the loans of all three crops were cash loans indicating their predominance among food crop growing commercial farmers. In general, over 14 percent of loans for all three crops and specifically over 32 percent of the loans for chillie and potato were material loans. In terms of value, the contribution of material loans was less, (between 7 to 21 based on crops) as they were very small loans compared with cash loans. Service loans were obtained to prepare lands (service of tractors) and their contribution was 5 percent in number and one percent in value.

6. Among different sources of credit, formal credit institutions were predominant; over 85 percent of the number and over 90 percent of the amount under all three crops.

7. Among different institutions involved in disbursement of credit for commercial food crops, the government commercial banks such as Bank of Ceylon and Peoples Bank were more popular than private banks because the government banks were somewhat flexible regarding collaterals by allowing two fellow account holder farmers to sign as guarantors. More popularity of mortgage loans (based on jewellaries) has also contributed to this phenomenon.

8. The popularity of other banks was at different levels. Regional Development Banks had become popular among farmers growing all commercial crops because it had also followed more flexible methods like group guarantee system to grant credit. The Samurdhi Bank was somewhat popular among poor rural communities especially in areas growing potato. The Farmer Bank had not been accepted by the farmers as a suitable mechanism to obtain cultivation loans because its credit seiling, Rs.25,000/- was not sufficient. SANASA and Co-operative Banks played a very minor role in this regard.

9. Community organizations including Death Donation Societies, Farmer Organizations, Women's Societies and other Welfare Societies also had played a vital role in providing credit only for chilli and b'onion farmers. About 16 and 8 percent of the total number of chilli and b'onion farmers' credit was supplied by community organizations.

10. Pawning gold as a method of obtaining credit for production purposes has become popular among farmers who cultivate all three crops. Over 25 percent of the number and over 35 percent of the amount of cash loans under all three crops had been obtained by pawning gold. Farmers used to purchase and keep gold for pawning when necessary. Non availability of proper collaterals for farmers to obtain other loans and comparative easy procedure to obtain pawning loans in a shorter period and lower procedural cost had been the reasons for its popularity.

11. The informal sources had played a minor role in providing credit requirements of commercial food crop farmers with their contribution being 5-10 percent in both number and amount.

12. Among informal sources that provided credit to commercial food crop farmers there were miscellaneous type of vendors including agro-input suppliers, boutique owners, harvest collectors and economic centre traders, friends and relations and professional money lenders. They played an equal role to provide credit to commercial food crop farmers.

13. Most of the informal sector credit was interlinked with input as well as output market, as the farmers used to obtain inputs such as seed, fertilizer and chemicals on credit with agreement of selling their produce to the lenders by allowing them to deduct the loan from due payment.

14. The interlinked credit, transacted with agro-input suppliers, boutique owners and traders, had hidden interest rates due to the fact that borrowers were not given the due discount of the inputs borrowed. But those credit transactions had not further influenced the borrowers because they were given the market price for their produce by the lenders. The borrowers were also able to obtain a better price by selling their product to another market as output transaction agreement was not so strict.

15. The B'onion farmers fully benefited from interlinked credit transactions with economic centre traders because there was not even a hidden interest. They also could get due discounts for inputs borrowed and due price for their produce.

16. Less credit cost, less time spent, less procedures and the greater amount obtainable had contributed to pawning gold to be a more advantageous credit source to commercial food crop farmers.

6.3 Conclusion

The study reveals that there are so many credit sources for the farmers growing commercial food crops such as chille, b'onion and potato. The farmers utilized those sources according to their choice. As they had utilized more formal credit sources than informal sources one of the hypothesis of the study that is commercial food crop farmers were more dependent on informal sources was disproved. The next hypothesis that interlinked credit transactions of the farmers growing commercial food crops had adversely affected them was also disproved because some of the interlinked credit transactions did not have any cost. Several other informal credit sources also did not badly influence them as their costs were less compared with the credit cost of the many formal sources. However, very small amounts of credit could be obtained from these sources and even that was limited to people who had close relationships with the lenders.

Credit costs, cumbersome procedures, long period taken to release credit and wastage of time are still burdens for farmers in obtaining credit from commercial banks. Although, they have chosen pawning gold as an alternative source it is not possible for every farmer to invest in purchasing gold. Hence, strengthening of Farmer Bank as a satisfactory credit provider will help poor farmers to overcome credit problems. As Farmer Bank is a common mechanism throughout the country, it will be a better source to arrange credit needs of the farmers after solving its operational issues. The following recommendations will help to make it a more useful institution.

6.4 Recommendations

1. Farmer Bank credit scheme should be reformulated by creating awareness about its benefits among non farm families in order to provide a better alternative (credit supplier) for the commercial crop farmers who face problems in obtaining credit. Waiting for a long period of time to obtain credit, wastage of time for procedural purposes, high credit cost etc. are problems faced by farmers when obtaining credit from other formal sources.

2. Farmer Banks should be strengthened to a level that they can provide satisfactory amounts of credit required by commercial food crop farmers. Increasing the number of members, promoting savings and share holdings are required to achieve these objectives.

3. Small group formation should be done properly by awareness creation and better mobilization of people so that each and every member of the group will be responsible for all the activities of the group.

4. The Krupanisas should be motivated through some incentives to be actively involved in order to strengthen day today operations of the Farmer Banks. They should arrange less time consuming and less cost credit facilities to farmers.

5. The present maximum credit limit of Farmer Bank credit scheme for any crop, which is Rs.25, 000/- should be increased to suit the crop and the location. At present this rule has become a deterrent to grant credit by some branches of the Farmer Bank which possess satisfactory amount of funds.

6. The Farmer Banks should not insist on obtaining credit always in the form of inputs because it will be a burden to the farmers who use inputs in their own ways (perhaps by using particular kind of inputs like pesticides and by mixing them with some others.)

7. The farmer organizations and other community organizations like death donation societies in areas where potato is cultivated should be mobilized as savings and credit organizations.

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Annex One

Table 01: Mortgage Loans Provided by Selected Commercial Banks in Nuwara Eliya and Badulla Districts for Potato Cultivation in 2009

Name of the Bank	No. of Loans	Amount
Hatton National Bank - N' Eliya	300	2,100,000.00
Sampath Bank - N' Eliya	-	1,500,000.00
Bank of Ceylon - N' Eliya	-	97,344,000.00
Peoples Bank - N' Eliya	-	112,000,000.00
Regional Development Bank - N' Eliya	1,584	33,600,000.00
Regional Development Bank - Bogahakumbura	-	8,000,000.00
Bank of Ceylon - Bogahakumbura	1,182	23,971,290.00
Peoples Bank - Bogahakumbura	1,200	11,200,000.00
Bank of Ceylon - Keppetipola	4,829	74,207,760.00
Bank of Ceylon - Boralanda	-	192,000,000.00
Peoples Bank - Uwaparanagama	-	160,000,000.00
Bank of Ceylon - Welimada	70	4,000,000.00
Hatton National Bank - Welimada	-	109,200,000.00
Sampath Bank - Welimada	-	8,000,000.00
Peoples Bank - Welimada	5,067	110,180,000.00
Bank of Ceylon - Uwaparanagama	6,475	84,232,230.00
Regional Development Bank - Lulwatta	1,200	16,875,000.00
Total	**21,907**	**1,048,410,280.00**

Source: Rapid assessment of the research team who visited to the relevant banks at the end of 2009/2010 cultivation year