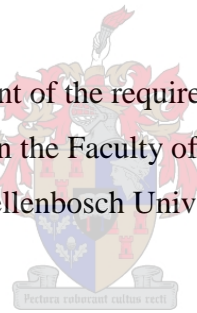


Financing agricultural small- and medium-scale enterprises in Namibia

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Dissertation presented in fulfilment of the requirements for the degree of Doctor of
Philosophy in Development Finance in the Faculty of Economic and Management Sciences
at Stellenbosch University



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December 2016

Declaration

By submitting this dissertation, I, Elina Muuwike Amadhila, declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

EM Amadhila

December 2016

Dedication

With great gratitude to Almighty God, I dedicate this work to all those with an interest in agricultural finance for smallholder farmers on the African continent.

Acknowledgements

I can do everything through him who gives me strength! (Philippians 4:13)

First of all, I would like to give thanks to God Almighty for bringing me this far in life and for giving me the opportunity to commence and complete my third degree. Thank you, Lord, for the gift of life! If it were not for the life and strength you have given me, I would not have received the opportunity to learn.

Secondly, I would like to give immense thanks to my supervisor, Prof Sylvanus Ikhide, for his enthusiasm, patience and guidance throughout. Prof, you have been a wonderful mentor. Your wisdom and encouraging words have always kept me going. I hope that your office door will always be open for me even after this PhD.

Thirdly, I wish to express a sincere thank you to all the participants (both farmers and financial institutions) who took the time to answer my questions. It is because of your answers that I was able to come up with this dissertation and make a contribution to knowledge. Special thanks to Mr Jacob Hamutenya, Mr Floris Fleermuys and Mrs Taleni Katoma for putting up with all my questions back and forth. My ultimate wish is that the results from this research will help to build a great and productive agricultural sector in Namibia.

I would like to thank my family—my parents, [Mr. Alfred and Mrs. Selma Amadhila], and my sisters [Aletta, Happy and Shaun] - for their love, prayers and support during my odyssey in Stellenbosch. Words cannot express how grateful I am to you all for all the sacrifices you have made on my behalf. I extend my thanks to my brother in law [Petrus Shifotoka], I truly appreciate your unflagging support, encouragement and the time that you took to run around whenever I asked you for favours in order to make sure that I completed this PhD.

To my friends and the entire family, thank you for your understanding and encouragement. I cannot list all the names here but you are all appreciated.

Last but not least, to my PhD colleagues both from the Faculty of Economic and Management Sciences Graduate School and the Business School, I say thank you for the

assistance you gave me to complete my studies and the laughter that we shared together. That laughter made the dark days seem bright.

Finally, my heartfelt appreciation goes to the Graduate School of Economic and Management Sciences at Stellenbosch University and the National Commission on Research, Science and Technology in Namibia for providing me with the funds to allow commencement and completion of this PhD. Keep doing the good job that you are doing of providing financial assistance to students. It is the best investment that anyone can make. We need more highly educated people on this beautiful continent of Africa.

This dissertation is only the beginning of my journey.

To all the readers of this dissertation, I hope that you learn a thing or two from this. Enjoy!

Abstract

While agriculture remains a key economic activity in Africa, employing about 55% of the population, only approximately 1% of bank lending goes to the agricultural sector. This phenomenological case study explored the financing of small- and medium-scale farmers in Namibia. Farmers on the demand side and financial institutions on the supply side constituted the population from which the researcher drew the study sample. Multiple methods of data collection were used, including conducting interviews, secondary data and document analysis. The results of the study were compiled into four different but thematically connected research essays.

The first essay investigates the constraints to financing agriculture in Namibia from the perspectives of small- and medium-scale farmers and the Agricultural Bank of Namibia (Agribank). The findings on the supply side (Agribank) reveal constraints such as a lack of collateral and poor loan recovery from farmers while on the demand side, insufficient capital, bureaucracy and a lack of collateral are among some of the constraints preventing farmers from successfully financing their agricultural activities. Finance is found to be a binding constraint.

The second essay identifies financing options for agricultural SMEs (apart from Agribank). The essay indicates that only about 33% of formal financial institutions are providing finance to agricultural SMEs, with lack of expertise and perception of risk in financing agriculture cited as top reasons why formal financial institutions find it hard to provide finance to agricultural SMEs. On the demand side, the majority of non- Green Scheme farmers indicated that they were unaware of financing options in the country while those in Green Scheme projects pointed to Agribank as the only bank that they knew.

The third essay assesses the agricultural SME finance gap. The estimated agricultural finance gap stands at N\$63 520 512, with demand more than supply. On the demand side, problems causing the finance gap within Green Scheme farming projects include loan default and thus denial of further loans and lack of financial institutions in the country. On the supply side, loan default and dishonesty by farmers limit Agribank's supply of loans, especially to small-scale communal farmers.

The fourth essay asks what we can learn from successful nations in agricultural finance, such as Brazil and Indonesia, as compared to Namibia, given the above findings. The findings show that Agribank-supported Green Scheme projects in Namibia mark government's effort in promoting agricultural productivity and access to finance by small- and medium-scale farmers. However, Namibia lacks agricultural financing expertise and farmers have poor access to markets, making it difficult to improve their farming practices. Brazil has adopted structured demand to promote access to markets and flexible repayment terms matched to production cycles. Indonesia addresses market failure in the agricultural industry through investing heavily in irrigation and improved provision of formal sector credit.

As compared to previous studies, this study contributes to the body of knowledge relating to SMEs in the agricultural sector by focusing on the financial aspect both from the supply and the demand side using primary data.

Opsomming

Hoewel landbou een van die vernaamste ekonomiese aktiwiteite in Afrika is en sowat 55% van die bevolking van werk voorsien, word slegs ongeveer 1% van banklenings aan die landbousektor toegestaan. Dié fenomenologiese gevallestudie ondersoek die finansiering van klein- en middelskaalboere in Namibië. Boere van verskeie persele aan die vraagkant en finansiële instellings op die aanbodkant saamgestel die populasie waaruit die navorser het die studie monster. Veelvuldige metodes van data-insameling gebruik, insluitend onderhoude, sekondêre data en dokument analise. Die studieresultate word in vier verskillende dogtematies verbandhoudende navorsingsopstelle aangebied.

Die eerste opstel ondersoek die beperkings op die finansiering van landbou in Namibië uit die onderskeie oogpunte van klein- en middelskaalboere en die Landboubank van Namibië (Agribank). Die bevindinge aan die aanbodkant (Agribank) dui op beperkings soos 'n gebrek aan aanvullende sekuriteit en swak terugbetaling deur boere; aan die vraagkant verhinder onvoldoende kapitaal, burokrasie en 'n gebrek aan aanvullende sekuriteit dat boere hulle landboubedrywighede suksesvol finansier. Finansiering blyk 'n bindende beperking te wees.

Die tweede opstel bepaal die ander beskikbare finansieringsmoontlikhede (benewens Agribank). Die studie toon dat slegs ongeveer 33% van formele finansiële instellings finansiering aan KMO's op landbougebied voorsien. Die hoofredes waarom formele finansiële instellings dit moeilik vind om hierdie KMO's te finansier, is oënskynlik 'n gebrek aan kundigheid en die algemene oortuiging dat landboufinansiering riskant is. Aan die vraagkant is nie-kontrakboere merendeels onbewus van finansieringsmoontlikhede in die land, terwyl dié wat kontrakboerdery in groenskemas beoefen slegs van Agribank weet.

Die derde opstel assesser die landbou se klein en medium ondernemings se finansiële gaping. Die beraamde landbou finansiële gaping staan op N\$63 520 512, met vraag meer as aanbod. Op die vraagkant, word probleme veroorsaak deur die finansiële gaping binne die groenskemaprojek wat insluit wanbetaling van lenings en daarom die afkeer van addisionele lenings en gebrek aan finansiële instansies in die land. Op die aanbodkant, lenings wanbetaling en oneerlikheid by die boere beperk die Agribank se toekenning van lenings, veral vir die klein-skaal gemeenskaps boere.

Laastens ondersoek die vierde opstel wat ons op grond van bogenoemde bevindinge kan leer uit 'n vergelyking tussen Namibië en suksesvolle landbounasies soos Brasilië en Indonesië.

Daar word bevind dat die groenskemaprojek wat deur die Agribank van Namibië ondersteun word, 'n teken is van die regering se pogings om landbouproduktiwiteit en toegang tot finansiering vir klein- en middelskaalboere te bevorder. Tog kom Namibië landboufinansieringskundigheid kort, sowel as beter toegang tot markte sodat boere hulle landboupraktyke kan verbeter. Brasilië volg byvoorbeeld 'n strategie van gestruktureerde finansiering om marktoegang te bevorder, sowel as buigsame terugbetalingsvoorwaardes in pas met produksiesiklusse. Op sy beurt gebruik Indonesië grootskaalse belegging in besproeiing sowel as verbeterde kredietvoorsiening deur die formele sektor om markgebrek in die landboubedryf teë te werk.

In vergelyking met voerige studies, dra die studie by tot the liggaam van kennis in verband met die klein en medium ondernemings in die lanbou sektor deur te fokus op die finansiele aspek van beide die aanbod en die vraag kant deur primere data te gebruik.

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List of acronyms and abbreviations

AALS	–	Affirmative Action Loan Scheme
Agribank	–	Agricultural Bank of Namibia
AGRIBUSDEV	–	Agricultural Business Development Agency
AMTA	–	Agricultural Marketing and Trade Agency
BoN	–	Bank of Namibia
BRI	–	Bank Rakyat Indonesia
CPI	–	Crop Production Index
DBN	–	Development Bank of Namibia
DFI	–	development finance institutions
FNB	–	First National Bank
GDP	–	gross domestic product
GNI	–	gross national income
IDC	–	Industrial Development Corporation
IFC	–	International Finance Corporation
IMF	–	International Monetary Fund
MAWF	–	Ministry of Agriculture, Water and Forestry
MFW4A	–	Making Finance Work for Africa
MLR	–	Ministry of Land Resettlement
N\$	–	Namibian dollar
NCT	–	noticing, collecting, thinking
NDP3	–	Namibia's Third National Development Plan
NDP4	–	Namibia's Fourth National Development Plan
NPC	–	National Planning Commission
NRP	–	National Resettlement Programme
NSA	–	Namibia Statistics Agency
OECD	–	Organization for Economic Cooperation and Development
PAA	–	Food Acquisition Programme
PNAE	–	National School Feeding Programme
Rp	–	Indonesian rupiah
Rs	–	Indian rupee

SME(s)	–	small and medium enterprise(s)
US\$	–	United States of America dollar

Chapter 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Small and medium enterprises (SMEs) play a very important role in most economies, particularly in developing countries, including Namibia. Some of the advantages for SMEs are the encouragement of entrepreneurship and the likelihood that SMEs will utilise labour-intensive technologies and thus create employment, amongst others (Cook, 2000). Despite the noted advantages of SMEs to the economy of a country, there are restrictions to SME's progress. These include access to markets, finance, technology and training. However, access to finance is considered the greatest constraint, in both the formal and informal sectors (Mboniyane & Ladzani, 2011; Tonin, Dieci, Ricoveri, Foresi & Hansohm, 1998). SMEs exist in many different sectors of the economy, one of them being the agricultural sector. Agriculture, either commercial or subsistence, forms the backbone of most economies. Agricultural SME finance is defined as "financial services available for small and medium enterprises who are involved in agricultural production (i.e., farming) and production-related activities" (International Finance Corporation [IFC], 2011:13).

The issue of lack access to finance for SMEs has been observed in Namibia. The government of the Republic of Namibia therefore created a number of institutions in an attempt to increase access to finance for SMEs in general and those that are sector specific to respond to the plight of the poor. According to Nakusera, Kadhikwa and Mushendami (2008), operational inefficiencies characterise most of the development finance institutions (DFIs) in Namibia. Financial Institutions that are still operational to date include the Development Bank of Namibia (DBN), the Agricultural Bank of Namibia (Agribank), the National Housing Enterprise and the Small Business Credit Guarantee Trust, now called the SME Bank. Apart from the other financial institutions mentioned above, Agribank is the only bank that was established in Namibia to focus on providing finance to agricultural SMEs. This research focused mainly on Agribank, but other relevant stakeholders such as the Ministry of Agriculture, Water and Rural Development and commercial banks were also used to provide

needed information for the objectives of the study. Agribank, established in 1907, was formerly known as the Deutsch-Sudwestafrikanischer Farmerbund. In April 1922, the Land and Agricultural Bank of South West Africa was established. The Agricultural Bank of Namibia Act No. 5 of 2003 as amended was made widely known in order to expand the scope of business, to capitalise on opportunities in the market and to transform the institution into a more versatile and responsive one for all stakeholders. This was done in order to meet the demands of the ever-changing business environment (Agribank, 2014).

SME financing comprises of the demand and the supply-side. On the demand side, there is argument that (Tonin *et al.*, 1998; Yaron, 2004) a number of SMEs are not well refined financially to participate in the formal financial sector or cannot afford market interest rates and therefore require credit subsidies. On the supply side, there is argument (Adongo & Stork, 2006; Mu, 2002; Vos, Yeh, Carter & Tagg, 2007) that the provision of funding that will result in a profit is not possible due to a number of reasons such as high transaction costs and institutional risks as a result of asymmetric information between borrowers and lenders, the inability of the SME owner to generate sufficient volume of business to attract formal financial institutions and sparsely distributed populations or inadequate enabling infrastructure in rural areas. The above arguments are some of the reasons why this study was carried out to explore financing decisions between borrowers and lenders.

In 2013, Namibia did not receive much rainfall in most parts of the country and therefore the country was hit by drought. Most people in the country who depended on agricultural food products experienced starvation because agricultural SMEs could not produce food for consumption, and as a result the health of the economy suffered.

The health of the economy as a whole has a strong relationship with the health and nature of small enterprise sector. When the state of the macro economy is less favourable, by contrast, ... employment expansion in SMEs are limited (Mead, 1998, as cited by Bowen, Makarius & Mureithi, 2009:17).

Given this scenario, an understanding of access to finance for agricultural SMEs is relevant for the development of SMEs and for the growth of the economy as a whole. Agriculture is the main economic activity and provides food for the majority of people in most low- and

middle-income countries (IFC, 2011; 2014). However, the daunting environmental limitations such as the lack of rainfall and long-term drought coupled with the perennial lack of access to finance in countries such as Namibia have hindered agricultural productivity and affected employment, especially in the rural areas (Frøystad, Hoffman & Schade, 2008; IFC, 2011; Schmokel, 1985). The lack of access to finance has been aggravated by numerous factors, including a lack of political will for rural development, weak institutional capacities in ministries of agriculture and perceived risk of agricultural projects. Because of this, funding for agricultural projects has fallen by half from a peak in 1970 to as low as 8% of total bank lending in 2000–2001 (Csaki, 2001).

As with many developing countries, very limited research and scholarly studies about the agricultural SME sector in Namibia are available. Given the importance of agricultural SMEs to the Namibian economy, a need was identified to conduct an empirical enquiry to understand the issue of access to finance for agricultural SMEs in Namibia and to determine how financial providers assisted these SMEs.

The term ‘agricultural SMEs’ was used broadly in this research to include those engaged in primary crop production. Those engaged in primary production could include individual farmers or farmer-based organisations and cooperatives. The study did not cover other rural SMEs although their significance to the economy is well recognised.

1.2 RESEARCH PROBLEM

In order to shift from subsistence to commercial agricultural production, access to finance is critical. Access to finance will enable the growth of the agricultural sector (The International Institute for Sustainable Development, 2015). Agriculture is a very important sector which not only plays a major role in poverty reduction and food security but also the creation of employment (International Finance Corporation 2011:32). However, the challenge in Namibia lies in working as a small-holder farmer (Ministry of Agriculture, Water and Forestry [MAWF], 2008). Agriculture in Namibia is practised on farms where a system of freehold land tenure prevails. Land tenure is the condition on which land is held, utilised and transacted (Adams, Sibanda & Turner, 1999). In the case of arable farming, farmers operating on a certain parcel of land may use it as they see fit, but it is usually precluded from being

used as collateral. Moreover, lending policies are not designed to fit specific target groups; for example, terms of payment, duration and security. This has resulted in the difficulty of providing finance more especially for those engaged in small-scale agriculture (Ofei, 2001, cited by Samuel, Ernest & Awuah, 2012).

It is acknowledged that it is a challenge to develop SMEs in developing countries (Hussain, Zeeshan & Akhtar, 2012). Both in industrialised and non-industrialised countries, SMEs have been found to have less access to external finance and therefore struggle in their operation and growth. Research shows that finance from family and friends plays a more important role in developing countries as compared to developed countries (Beck & Demirgüç-Kunt, 2006). For different reasons, ranging from a lack of collateral to bias against SMEs, SMEs tend to face greater financial constraints than do larger firms (Hussain *et al.*, 2012).

Previous studies have demonstrated that neither commercial banks nor the emerging microfinance industry are keen to sufficiently meet the financial needs along agricultural value chains, leaving agricultural SMEs unserved in the so-called 'missing middle'. A basic problem behind certain government interventions is that politicians come up with quick fixes for social problems such as rural poverty and reduction of unemployment by, for example, offering short-term job creation. However, these quick fixes are temporary and therefore the provision of sustainable financial services for agriculture has proven to be difficult (IFC, 2011).

The provision of finance for people engaged in small-scale agriculture in Namibia has proven to be a challenge because small-scale farmers have no secure tenure rights to land and without such collateral, they have difficulty in obtaining credit and other resources from financial institutions for the purpose of production (Werner, 2004). Previous studies in the area of agricultural finance have leaned towards the use of secondary data or review of literature (Adongo & Deen-Swarray, 2006; Adongo & Stork, 2006), adopted purely quantitative methodology approaches (Abor & Biekpe, 2006; Adongo & Deen-Swarray, 2006; Diagne & Zeller 2001) or focused on the entire SME sector but excluded agricultural SMEs (Tonin, 1998).

However, documents used in secondary data may be biased, since they represent the view of their authors. Furthermore, some documents are not complete or up to date. The problem with the quantitative methodology is that it restricts the options of the research process, inhibits the initiative and motivation of the researcher, limits the effectiveness of research, and produces artificial data that do not reflect the reality as a whole (Sarantakos, 2005:35).

This study employed a qualitative methodology approach using primary data to understand issues from the view of the subjects and provide some insights on how to unlock agricultural finance in Namibia specifically for small and medium-scale farmers. This was done by identifying the financial constraints for small and medium-scale farmers; examine financial support offered to farmers and reasons against financing agriculture, determine the magnitude of the SME finance gap and finally compared results with other successful nations in order to draw some lessons.

1.3 RESEARCH QUESTIONS

The specific questions to be addressed in this study included the following:

1. What are the significant financing constraints for agricultural SMEs in Namibia from the demand and supply sides?
2. What are the financing options available for agricultural SMEs, and why are some financial institutions not interested in financing agricultural SMEs?
3. What is the magnitude of the agricultural SME finance gap, and what are the causes of such a gap?
4. What are some of the agricultural finance lessons to be learned by the government of Namibia from successful practices in nations such as Brazil and Indonesia?

1.4 RESEARCH OBJECTIVES

Given the above research questions, the specific objectives addressed were as follows:

1. Identify financial constraints for agricultural SMEs in Namibia with particular reference to their access to finance from Agribank.

2. Examine the different support mechanisms for agricultural SMEs in Namibia through identification of the types of financing options and reasons against financing agricultural SMEs to explain the unfulfilled loan demand.
3. Determine the magnitude of the agricultural SME finance gap among communal farmers and identify the main determinants of the identified gap.
4. Investigate government support mechanisms for agricultural SME finance in Namibia and compare these with practices from Brazil (Latin America) and Indonesia (South-East Asia).
5. Make suitable recommendations based on the findings.

The study was organised around four stand-alone essays, each of which explored one of the research questions.

1.5 CONTRIBUTION OF THE STUDY AND RATIONALE FOR EACH ESSAY

SMEs were among the most disadvantaged groups during the colonial era and need to be supported to empower the previously disadvantaged sections of the population (Republic of Namibia, 1997). As part of the legacy of land dispossession in Namibia, many black people were left with almost no alternative than subsistence farming and were forced into wage labour on the commercial farms of white settlers (Vermeulen, 2009), thus leaving many people unable to work for themselves. The National Resettlement Programme (NRP) aims to transform large-scale commercial farming into a new small-scale commercial agricultural sector in order to create employment through farming and make beneficiaries self-sufficient in terms of food production (Werner & Odendaal, 2010).

The review of performance of Namibia's Third National Development Plan (NDP3) in Namibia's Fourth National Development Plan (NDP4) showed that the agricultural sector had diminished. The sector registered over 7% below expected contribution to economic growth. At the start of the NDP3 period, performance in agriculture was very poor, with a contraction of 7.8% in 2007/08 and 14.1% in 2008/09 (Table 1.1).

Table 1.1: Out-turn against targets to economic growth during the NDP3 period.

Item	NDP3 target	Out-turn
Agriculture	3.7	-3.6
Fishing and on-board fish processing	2.5	-3.7
Mining and quarrying	0.8	-8.4
Primary industries	2.0	-6.5

Source: National Planning Commission (NPC) (2013)

This research looked at the financial problems that small-scale farmers experienced and what options were available for them. If an awareness of the factors that inhibit access to finance exists, better decisions, such as the allocation of land, will be made, taking into account the issue of collateral. This is important because according to the SME policy document, it is recognised that the development of SMEs will contribute strongly to Namibia's socioeconomic development (Republic of Namibia, 1997).

Extant research in developing countries such as Ghana, Nigeria, India and Malawi has tended to focus on SMEs in general (Akorsu & Agyapong, 2012; Mead & Liedholm, 1998; Olaitan, 2006; (Akorsu & Agyapong, 2012; Zaidi, 2013). Namibia has had very few studies done on this topic that focused not only on SMEs in general but also only on the borrowers' side (Nakusera *et al.*, 2008). This study thus contributes to the body of knowledge relating to SMEs in the agricultural sector by focusing on the financial aspect both from the supply and the demand side.

This study can be regarded as an original contribution in at least three different ways. Firstly, previous studies that have focused on small-scale farmers have subjected farmers' access to finance to rural credit markets, in other words informal moneylenders, using secondary information with a quantitative approach to collect and analyse the data (Aleem, 1990; Hoff & Stiglitz, 1990; Obeng, 2008). This study focused on formal financial institutions such as

development financial institutions and banks using primary data with a qualitative approach in order to get to the grassroots and gain an in-depth understanding.

Secondly, small- and medium-scale Green Scheme farmers have been in business in Namibia for more than a decade. However, to the best of the researcher's knowledge, there has never been any empirical investigation into their access to finance. This research thus addresses this urgent need by providing valuable empirical knowledge needed not only for the growth and development of the sector but most importantly for improving agricultural finance. This will encourage entrepreneurship, boost agricultural production, contribute to food security and thus reduce poverty.

Thirdly, the study initiates a new dimension to the debate and controversies regarding access to information on agricultural financial services for independent farmers as compared to Green Scheme farmers. The information is very timely and an important input to the NPC's strategy towards the realisation of continued financial and technical support expected to those involved in agricultural production activities between the years 2012 and 2017 (NPC, 2013).

The significance of the study lies in its potential to assist policy makers in decision making because one of the desired outcomes of the NDP4 is for agriculture to experience average real growth of 4% per annum over the NDP4 period from 2012 to 2017 and one of the strategies to accomplish this is to offer continued financial and technical support to those involved in agricultural production activities. For this reason, the first essay identifies the constraints to financing agriculture from both the demand and the supply side. This is done with a specific focus on small- and medium-scale farmers on the demand side and Agribank on the supply side.

The second essay identifies whether farmers (demand side) are aware of financing options targeting farmers in the country and whether formal financial institutions (i.e. commercial banks, venture capital funds and development bank institutions on the supply side) finance agricultural SMEs. If the interviewed institutions indicated that they did not provide finance to the agricultural sector, reasons for this were sought.

Following the second essay on reasons why financial institutions do not finance agriculture and arguments in the literature that a finance gap between demand and supply exists (Arshad, 2011; Doran, McFadyen & Vogel, 2009; IFC, 2013; Morvant-Roux, 2007; Vitoria, Mudimu & Moyo, 2012), the third essay investigates the magnitude of the agricultural SME finance gap and specific causes of such a gap. The purpose is to offer insights into how Agribank can bridge the gap between the demand for and supply of finance.

The fourth essay takes advantage of results from the three essays and recent research work in Latin America and South-East Asia because these regions achieved respectable rates of agricultural productivity growth in the recent past (Duff & Padila, 2015) to draw a comparison between selected features of both regions' government intervention in the funding of agriculture by financial institutions and that of Namibia and government intervention in lending to agriculture.

The overall study will therefore assist in creating awareness of specific financial constraints among agricultural SME owners in Namibia and how these can be minimised in order to encourage entrepreneurship and reduce poverty. The theoretical background that informed this study is presented in the following section.

1.6 CHAPTER ORGANISATION

The dissertation is organised around four main themes under agricultural finance. These are constraints to financing agriculture, financing options for agricultural SMEs, the magnitude of the agricultural SME finance gap and the government of Namibia's efforts to finance agriculture as compared to successful nations. Each theme has been developed into a stand-alone essay.

The first chapter of this thesis introduces the research and highlights some of the debates surrounding agricultural finance. The second chapter gives an overview of the agricultural sector in Namibia. The third chapter focuses on the theoretical framework and broader literature guiding the study. The fourth chapter explains the methodology used. The fifth

chapter presents the beginning of the empirical investigation by identifying the financial constraints to financing agriculture with specific emphasis on small- and medium-scale farmers in Namibia and their access to finance from Agribank. The sixth chapter presents the exploration of the unfulfilled loan demand by identifying the financing options for agricultural SMEs in Namibia and the reasons why financial institutions do not finance agriculture. The seventh chapter presents the assessment of the SME finance gap. The eighth chapter provides a comparison of agricultural finance in Namibia to that of Latin America and South-East Asian countries and draws some lessons. The ninth and final chapter presents the conclusions and policy recommendations.

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Chapter 2

OVERVIEW OF NAMIBIAN AGRICULTURE

2.1 INTRODUCTION

This chapter presents brief background information on Namibia and overview of the agricultural sector. It sets out with a description of the country and follows with an overview of the agricultural sector. As the motivation behind this study was to make an enquiry into the financing of agriculture in Namibia, it is deemed important to first give a general overview of the agricultural sector in Namibia in order to situate the institutional arrangements within which agricultural SMEs operate. Finally, the chapter gives a brief outline of the main DFI in the agricultural sector, Agribank.

2.2 BACKGROUND OF NAMIBIA

The Republic of Namibia was a German colonised country on the south-western coast of Africa. Interestingly, prior to independence, Namibia was referred to as South West Africa. Geographically, Namibia has a total land area of about 825 615 km². It is surrounded by the Atlantic Ocean on the west coast, and it is bordered by Botswana on the east, South Africa on the south and Angola on the north. The country is currently divided into 14 regions with the vast majority of the population residing in the urban areas in the northern part of the country and in the capital city, Windhoek. The population of Namibia is 2 113 077 inhabitants, as recorded by the 2011 Population and Housing Census. It should be noted that 90% of the population is made up of black Namibians and that white Namibians only comprise 6.4% of the population (Namibia Statistics Agency [NSA], 2013).

Namibia is classified as an upper-middle-income country, according to the World Bank classification. The country's gross domestic product (GDP) was estimated at US\$12.3 billion in 2011 and its population at 2.1 million (NSA, 2013). These figures translate into a GDP per capita of US\$5 693.13 (N\$43 158). This per capita income falls below the threshold of the World Bank's definition of a high income, which is a per capita income that exceeded US\$12 476 in 2011. Nonetheless, irrespective of Namibia's poor classification as per the World

Bank's definition, Namibia's income level is relatively higher than that of most African countries. However, on the United Nations' Human Development Index, the country's ranking is worrisome. In 2014, Namibia's Human Development Index was ranked 11th in Africa and 127th at a global level. Namibia's counterparts, Botswana and South Africa, were ranked 6th and 7th, respectively, while at a global level, Botswana and South Africa were ranked 84th and 104th, respectively (NPC, 2015).

With regard to economic growth, between 2009 and 2014, the Namibian economy has registered an average growth rate of 4.3% (NPC, 2015). Despite a relatively high GDP per capita and a steady economic growth, the country's poverty and unemployment rates are among the highest on the African continent. According to the NSA (2013), Namibia's poverty rate was 19.5% and the unemployment rate (broad) was 27.4% in 2012, lower than 36.7% and 51.2% reported in 2004 and 2008 respectively.

The NSA (2012) further revealed that the tertiary industries of Namibia made the highest contribution to its economic growth as they contributed 56% to the GDP, followed by the primary and the secondary industries, which contributed 20% and 17%, respectively (Figure 2.1).

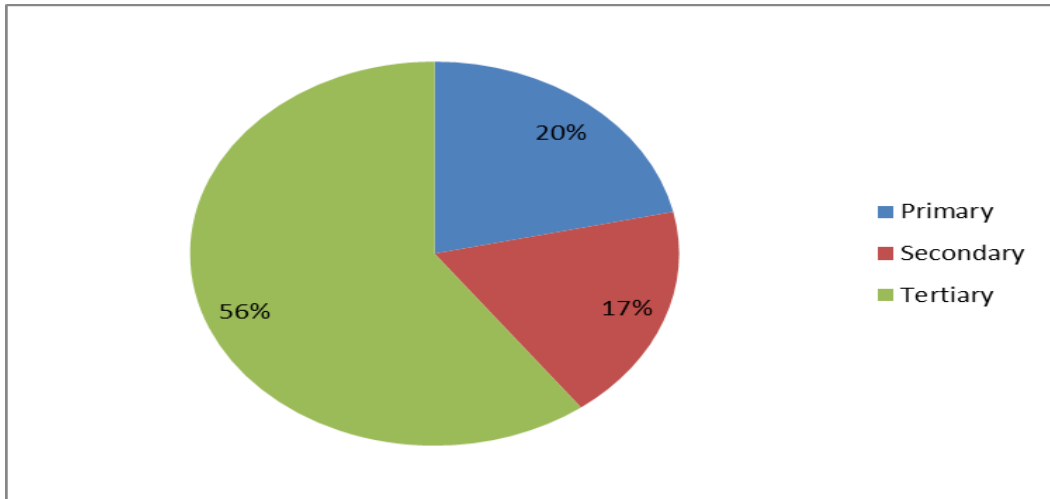


Figure 2.1 Industries contribution to GDP, Namibia 2012

Source: NSA (2013)

Taking a closer look at the Namibian sectors' contribution to GDP over the past decade, one sees that the mining and the manufacturing sector have been the main contributors to GDP (Figure 2.2). Over the years, the contribution of the service sector to GDP has been increasing at a steady rate (Bank of Namibia [BoN], 2013).

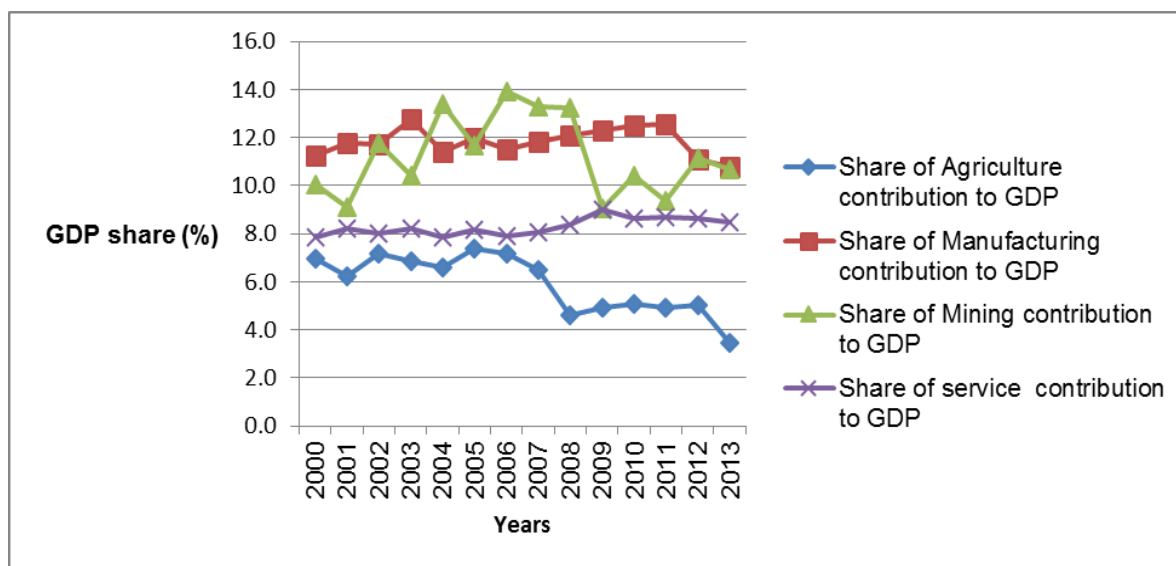


Figure 2.2: Share of sectors' contribution to GDP, 2000 - 2013

Source: NSA (2014)

The mining sector has been fairly unstable due to its high sensitivity and exposure to external shocks. In 2009 and 2011, the sector experienced a huge reduction in its contribution to GDP. The poor performance of the mining sector in 2009 could be explained by the 2008/09 world economic crisis.

The agricultural sector, which is the source of livelihood for the majority of the Namibian population, has been shrinking over the years. In 2013, the sector reached a nadir and its contribution to GDP was a mere 3.5% while the mining, the manufacturing and the service sectors contributed 10.7%, 10.8% and 8.5%, respectively.

Despite Namibia's satisfactory macroeconomic performance, the country is facing a number of socioeconomic challenges. Namibia still ranks amongst the most unequal societies in the world faced with high levels of unemployment and poverty rates (Jauch 2012). The section that follows gives an overview of Namibia's socioeconomic challenges.

Namibia suffers from an inherited dual economy at independence in 1990. The highly productive capital-intensive mining sector employs 2% of the labour force while agriculture with its low productivity employs 31.4% (Phiri & Ojijo, 2015). Despite rapid urbanisation, 58% of the Namibian population makes up the rural society while 42% makes up the urban society, which means that the country remains a mainly rural society in which a large number

of people depend on agriculture. Between 2001 and 2011, the main source of income for households in Namibia was farming, second to wages and salaries (NSA, 2013). While the urban regions have lower unemployment rates, the agricultural regions by contrast (which are mainly rural) not only have high unemployment; they also experience high informality and low pay with 75% classified as unpaid family workers and 20% reporting underemployment (Phiri & Ojjo, 2015).

Namibia's unemployment rates rank among the highest in the Southern African region (see Figure 2.3 below).

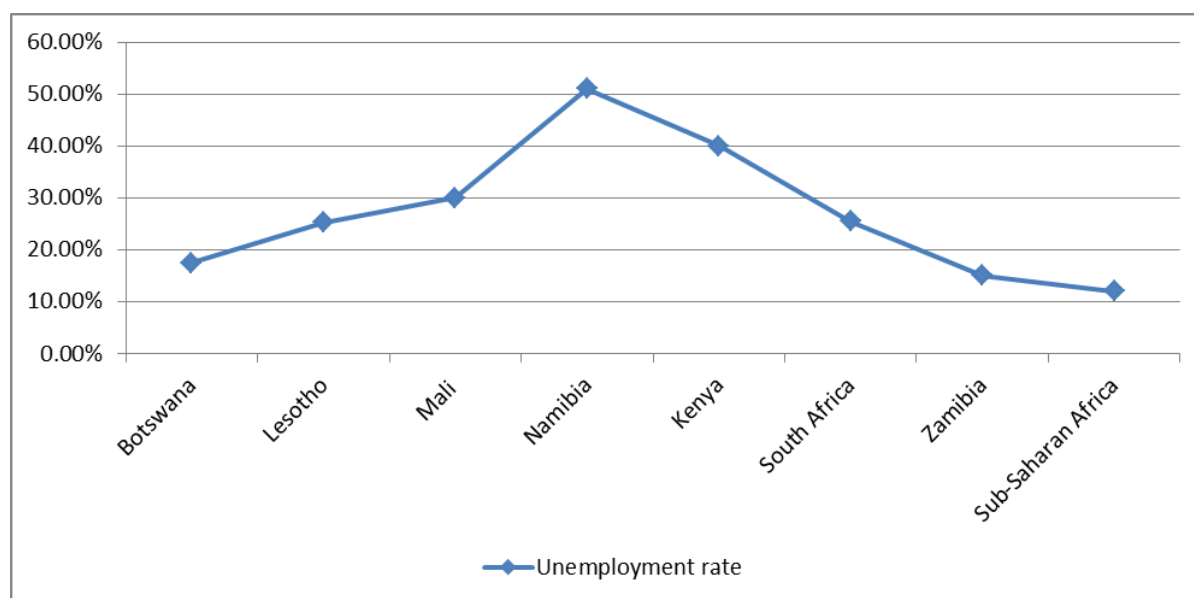


Figure 2.3: Unemployment rates comparison in sub-Saharan Africa in 2008

Source: Mwinga (2012)

In addition to the challenge of unemployment, another socioeconomic challenge facing Namibia is the high poverty rate. According to the NPC (2015), poverty has been prevalent in Namibia since independence. Poverty levels in Namibia were estimated at 69.3% in 1993/94, 37.7% in 2003/04 and 28.7% in 2009/10 (NSA, 2012) (see Figure 2.4 below). Further, the NSA (2012) revealed that the poverty gap ratios (which measure the minimum amount of

income or resources required to move the poor out of poverty) were 37.7% in 1993/94, 12.9% in 2003/04 and 8.8% in 2009/10.

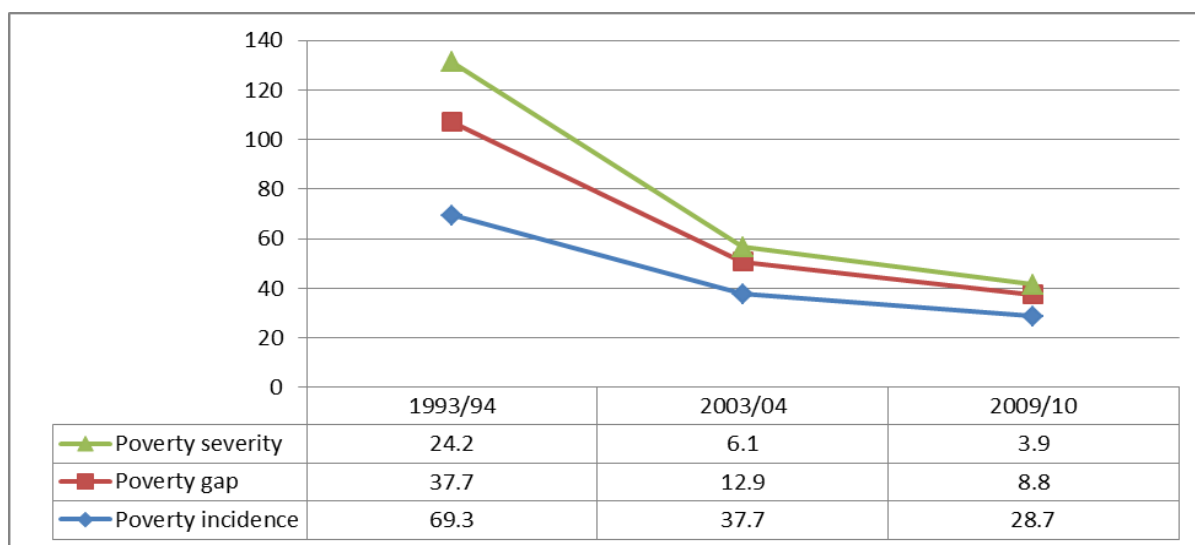


Figure 2.4: Poverty levels over time in Namibia, 1993/92, 2003/04 and 2009/10

Source: NSA (2012)

The measure of poverty severity is more enlightening than the poverty incidence and poverty gap. Poverty severity pays attention to both the poverty gap and inequality among the poor, thus suggesting that in trying to reduce poverty, a higher weight must be placed on those that are further away from the poverty line (NSA, 2012). Notably, the severity of poverty in Namibia has declined significantly (from 24.2% to 3.9%) over the past two decades.

With regard to rural versus urban poverty, poverty in Namibia is largely rural. According to the NSA (2012), in 1993/94 70% of people living in poverty were found in Namibia's rural areas whereas only 30% of the poor people lived in the urban areas. The largest share of the poor generates their income from subsistence farming and rural non-farming business, which makes rural-based economic activities in Namibia the main source of income for the poor.

Closely linked with high poverty rates is the lopsided distribution of income. With a Gini coefficient of 0.59 (this has fallen rapidly from 0.7 in the early 1990s), Namibia still ranks among the most unequal economies in Africa (Jauch, 2012). Excessive unequal distribution of income adversely affects people's quality of life and results in economic inefficiency, political instability and social unrest. This view agrees with that of the NPC (2013), which

states that Namibia's high degree of unequal distribution of income is detrimental to sustainable and equitable economic growth, poverty reduction and social cohesion.

The 2011 population census enumerated 2 104 900 persons, and this figure represents an absolute increase of 274 570 persons compared to the 1 830 330 persons enumerated in the last census in 2001. Overall, the population of Namibia has grown steadily since 1921, rising from about 1.4 million persons in early 1921 through 1.8 million persons in early 2001 to 2.1 million in 2011 (NSA, 2013).

Despite an increase in the population and dependency on agriculture, the country's economy in general and the agricultural sector in particular are constrained by socioeconomic challenges that limit the country's ability to produce enough food for security of the entire population. These challenges include stagnant income levels, escalating unemployment, extreme poverty, unequal distribution of income and untenured land, to mention just a few. In addition, only 8% of the country receives an average rainfall higher than 500 mm per annum. High evaporation rates, spatial differentiations in water availability, major variations in annual precipitation and erratic rainfall influence and further impede production and farming conditions. Over the past decade, periodic droughts have led to a dramatic decrease in livestock numbers, the cancellation of agricultural subsidies and rising interest rates while bush encroachment has undermined production conditions. Although classified as a dry country with relatively low agricultural potential, agriculture plays a central role in the lives of many Namibians (Werner, 2004).

The combination of high unemployment, high poverty rates and high inequality of income dictates that policy interventions must be directed to the economic sector(s) in which the incidence of poverty is highest and also to the sector(s) that is/are responsible for the livelihood of many. In the case of Namibia, poverty rates are highest in the rural economy (both subsistence farming and nonfarming). The rural economy is also the source of livelihood for many. According to the Institute for Public Policy Research (2011), the majority of the population are employed in the agricultural sector and derive their livelihood from it. Therefore, policies that are aimed at creating employment and reducing poverty in Namibia should be directed towards the rural areas, focusing on the agricultural sector. In

addition to this view, Tregenna and Tsela (2008) found that unemployment explained much of the inequality in South Africa and inferred that reducing unemployment was central to reducing inequality. Bearing in mind the fact that the agricultural sector in Namibia has the potential to create more employment in Namibia, Tregenna and Tsela's (2008) argument therefore highlights the potential role that this sector could play in economic transformation.

2.3 THE AGRICULTURAL SECTOR IN NAMIBIA

Scarce productive land and fragile soils coupled with limited water resources and an erratic rainfall regime are the principal features of Namibia's agriculture. The country can be divided into four ecological zones:

1. The desert region, comprising 22% of the land area, where mean annual rainfall is less than 100 mm.
2. The arid region, comprising 33% of the land area, where mean annual rainfall varies between 100 and 300 mm.
3. The semiarid region, comprising 37% of the land area, where mean annual rainfall varies between 301 and 500 mm.
4. The semi-humid and subtropical region, comprising 8% of the land area, where mean annual rainfall varies between 501 and 700 mm (MAWF, 1995).

As the largest contributor to employment in the county, the agricultural sector has always received attention in Namibia's national development plans. However, the Namibian agricultural sector has been shrinking over the years (as seen in Figure 2.2). During the period 2000 to 2013, according to the NSA statistical data, the contribution of the agricultural sector to GDP has been falling.

The BoN (2008) advanced a number of reasons for the negative growth of the sector such as droughts, decline in product prices, higher interest rates, lack of agricultural financing, growing population, insufficient usage of technology, low investments in the sector and bush encroachment.

The agricultural sector in Namibia displays a dualistic nature whereby a developed, technologically based and relatively productive commercial sector coexists with a subsistence sector characterised by low productivity in which manual labour and the use of traditional methods of production are still predominant. This is traceable to the legacy of apartheid.

The different farming systems found in Namibia are grouped and organised as follows:

1. Small-scale mixed farming (small fields of cereals and some vegetables, and small numbers of cattle and goats used largely for domestic consumption).
2. Cattle ranching (large-scale commercial cattle farming for beef production on big farms on freehold and communal land and on open-access communal land).
3. Small stock farming (small stock farming primarily means sheep and goat farming in semiarid areas on large, exclusive freehold farms and on open-access communal land).
4. Commercial crop production and other intensive agriculture (commercial production of grains, vegetables and fruit and other largely high-value commodities on farms by a few farmers using comparatively intense management and production techniques and specialist knowledge) (Namibia Training Authority, 2013).

Like other countries where inequality in land distribution has been high and governments have supported land reforms to reduce this inequality (Independent Evaluation Group World Bank, 2011), during 1990 when Namibia gained independence, there were about 6 000 commercial farms owned by about 4 000 white farmers. These farms covered most of the land suitable for farming. From Table 2.1 below, it is clear that land ownership in Namibia is favourably skewed towards the white individuals who own a lion's share of 20.6% of Namibia's total land surface; in contrast, black individuals own only 2.4% of the total land surface. The inequitable distribution of land along the racial groups and also the differences in farm sizes between commercial farmland and communal land partly underscore the highly unequal distribution between the two races and the two farming sectors. This is in keeping with the view of Werner and Odendaal (2010) who argue that unequal access to land in Namibia has contributed to poverty and unequal income-generating opportunities between the two sectors.

The Agricultural Land Reform Act, passed early in 1995 (Ministry of Land Resettlement [MLR], 2014), enables citizens who have been economically, socially and educationally disadvantaged by the discriminatory laws of the past colonial rulers to gain access to commercial farmland. Moreover, the Agricultural Land Reform Act recommended how commercial land was to be accessed through the two government initiatives, namely the AALS and the NRP.

The AALS is a redistributive land reform programme through which previously disadvantaged as well as emerging black farmers can acquire ownership of commercial land at affordable prices (MLR, 2014). Further, according to Werner and Odendaal (2010), the AALS provides subsidised loans to previously disadvantaged Namibians purchasing large-scale commercial farms. According to the MLR (2014), the AALS serves two broad objectives: to facilitate the resettlement (on commercial farms) of well-established but previously disadvantaged Namibians who are from the communal areas and to assist small-scale communal farmers to gain ownership of freehold farms and to develop these farmers into fully fledged commercial farmers (MLR, 2014). The primary objectives of the NRP are redressing the past inequitable land distribution, providing an opportunity to the previously disadvantaged to produce their own food for subsistence purposes and to sell any surplus food products, and creating employment opportunities through engaging beneficiaries in farming and related income activities (MLR, 2014).

Table 2.1: Land ownership among different groups in Namibia

Land ownership	Land surface (km ²)	Share of title deed land (%)	Share of agricultural land (%)	Share of Namibia's land surface (%)
White individuals	170 000	40	24.7	20.6
Companies	63 200	14.9	9.2	7.7
Black individuals who bought their own farms	19 800	4.7	2.9	2.4
Black individuals who live on the 'Odendaal Farms' ¹	84 000	19.8	12.2	10.2
Government	13 600	3.2	2	1.7
Non-Namibian citizens	4 700	1.1	0.7	0.6
Municipalities	5 900	1.4	0.9	0.7
Unclear ownership (at the time)	63 000	14.9	9.2	7.7

Source: Odendaal (2005)

As a response to the uneven land distribution, the country implemented various land reform policies between 1990 and 2008. The government bought farms and redistributed them to landless people. Some of the big farms bought entailed dividing the land into smaller farms (Frøystad *et al.*, 2008). The commercial sector largely exists on title deed lands (freehold sector) while the small-scale sector mostly exists on communally administered state lands.

¹ Odendaal farms are referred to as farms on the southern part of Namibia that were demarcated for a particular purpose during the colonial regime. The farms are named after the person (Odendaal) who initiated this idea.

The commercial farming subsector is made up of 6 337 freehold title deed farms belonging to about 4 200 large-scale farmers, each having an average landholding of approximately 8 620 hectares (MAWF, 2008). Commercial agriculture is practised in the northern and southern parts of Namibia; 70% of the black Namibian population live in the north and the majority derive their livelihood from small-scale farming (Elkan, Amutenya, Andima, Sherboune & Van der Linden, 1992). As a result, there is a skewed distribution of arable land whereby 52% of agricultural land is mainly owned by large commercial farming households while the remaining 48% of largely communal land supports 70% of rural households (Phiri & Ojijo, 2015). The north receives reasonable rainfall and adopts arable farming while the south is arid and most of the time only adopts ranching (Elkan *et al.*, 1992). Furthermore, in order to deal with the land issue and to allow access to finance, the Constitution identified different areas in which previously disadvantaged persons should be advanced (Werner, 2004). Access to finance for agricultural purpose is promoted by Agribank.

2.4 AGRICULTURAL BANK OF NAMIBIA

Agribank is a financial institution that exists in Namibia to promote agriculture or activities related to agriculture by lending money to persons that is to be used in connection with agriculture or activities related to agriculture. Agribank was established in 1907 and was formerly known as the Deutsch-Sudwestafrikanischer Farmerbund. In April 1922, the Deutsch-Sudwestafrikanischer Farmerbund was renamed the Land and Agricultural Bank of South West Africa. The Agricultural Bank of Namibia Act No. 5 of 2003 as amended was made widely known in order to expand the scope of business, to capitalise on opportunities in the market and to transform the institution into one flexible and responsive to all stakeholders. This was done in order to meet the demands of the ever-changing business environment (Agribank, 2014). The functions of Agribank are to advance money for the purposes of agricultural activities and to lend money as an agent of the government to persons under Green Scheme projects created by contract with the ministry responsible for agriculture (Office of the Prime Minister, 2014). The Green Scheme is a government programme aimed at increasing food production through irrigation production. The principal component of the Green Scheme is to create a public-private partnership aimed at developing

and managing basic infrastructure for irrigation and promoting private sector investments in agriculture (Agribank, 2014). While the purpose of the Green Scheme is to increase food production in Namibia, the main beneficiaries are rural farming communities that are willing to venture into new agricultural activities. As far as employment and job creation are concerned, preference is given to rural communities residing near the Green scheme projects in order to stimulate the rural economy. The private investor obtains land through the Land Board and develops the land according to an approved business plan. Incentive schemes available for all projects under the Green Scheme are interest rate subsidisation and loan guarantee collateral. The interest rate subsidy is applicable regardless of any equity contribution to the project by the commercial irrigation farming enterprise or small-scale irrigation farmers (MAWF, 2008). The government transfers money from the national budget to Agribank to provide for the interest rate subsidies under the scheme. The government policy has three fundamental rationales for this transfer of funds: to promote the ownership of Namibian farmland by formerly disadvantaged Namibians, to encourage farmers with large numbers of livestock in the communal areas to move to commercial farmland, thereby freeing up land for smaller communal farmers, and to encourage formerly disadvantaged Namibians to become fully fledged commercial farmers. The degree of subsidy depends on whether a farmer operates full time or part time and on nonfarming income if the farmer operates part time.

A typical AA loan will include a large element of subsidy. For example an AA loan of N\$500,000 to full-time farmer will contain a subsidy of almost N\$400,000 over the life of the loan at a 11.75% rate of interest (in 2002), compared with the equivalent to a non-AA farmer (Sherbourne, 2004:16).

While the interest rate at Agribank stood at 11.75%, the interest rate of commercial banks stood at 16.35% in 2002. No business plan is required since Agribank values the land (although owned by government who acts as guarantor) extremely conservatively and uses the land as collateral for the loan (Sherbourne, 2004). The bank offers a wide range of products that are meant to meet the needs of a wide range of farmers and their farming activities. Some of the loan products in its loan booklet are shown in Table 2.2 below.

Table 2.2: Agribank loan products and services

	Period	Interest rate		
		Commercial clients	Communal clients	Resettled clients
Short-term loans				
Production inputs	1–2 years	7.50%	4%	4%
Medium-term loans				
Loans for the purchase of female breeding stock	5 years	7.50%	4%	4%
Loans for the purchase of light delivery vans and small trucks	5 years	8.25%	7%	n/a
Loans for the purchase of used tractors and agricultural implements	5 years	7.50%	7%	4%
Loans for the purchase of draft animals and implements	5 years	n/a	4%	n/a
Loans for the purchase of irrigation implements	5 years	7.50%	4%	n/a
Loans for infrastructure and improvement	10 years	8.25%	7%	8%
Loans for the purchase of large stock	10 years	8.25%	4%	4%
Loans for the purchase of small stock	8 years	8.25%	4%	4%
Loans for the purchase of new tractors and agricultural implements	10 years	8.25%	7%	n/a
Long-term loans				
Loans for the purchase of land for beginners	25 years	8%	n/a	n/a
Loans for the purchase of additional land for expansion	20 years	8%	n/a	n/a
Loans for the construction of dwellings and other permanent farm buildings	15 years	8%	n/a	n/a
Loans for the construction of labourer housing	15 years	4%		n/a
Loans for water provision, fencing and other improvements	15 years	8%	7%	n/a

Source: Agribank (s.a.)

2.5 CONCLUSIONS

This chapter has shed some light on the profile of Namibia and the challenges facing the country in general and the agricultural sector in particular. Although Namibia is classified as a middle-income country, a large part of the population still lives in deprivation. The country is faced with high unequal income distribution and a great deal of socioeconomic challenges such as unemployment and poverty. The government has established the Agricultural Bank of Namibia to promote agriculture or activities related to agriculture. The loans provided by Agribank are subsidised by the government to ensure that formerly disadvantaged Namibians have access to finance and land to farm under schemes run by the government. Although agriculture is the largest contributor to employment, there is still much to be done in the agricultural sector as the sector has been showing a downward trend in recent years regarding GDP contribution as compared to other sectors. Issues that need to be tackled are drought, land ownership and financial investments in the agricultural sector. This will not only assist in reducing poverty but will also reduce the unemployment rate.

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Chapter 3

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

3.1 INTRODUCTION

This chapter provides a brief explanation of the theoretical framework that underpinned this study and also attempts a rather brief literature review. Given the structure of the dissertation, each analytical chapter attempts a more detailed discussion of conceptual issues and a broader literature review that zeroes in on the specific objectives addressed in the chapter.

3.2 THEORETICAL FRAMEWORK

3.2.1 Information asymmetry and market failures

The central theme or theory guiding this study was the role of government intervention in lending to agricultural SMEs because of market failure that exists in the loan market. Market failure occurs when “a competitive market fails to bring about an efficient allocation of credit” (Besley, 1994:29). This is observable when a competitive market fails to allocate the scarce societal resources optimally to achieve the maximum possible social welfare or Pareto efficiency (Rao, 2012). Credit markets in developing countries tend to fail mainly due to the contracting problem and the problem of information asymmetry. Contracting challenges occur when the borrowers are unable to repay the loan due to a legitimate inability to repay the loan (for instance, if the borrowers’ output has been negatively affected by, for example, one form of natural disaster or the other) or due to unwillingness to repay the borrowed funds (if the lender applies insufficient sanctions against delinquent borrowers) (Besley, 1994). Contract enforcement is usually uncommon in developing countries’ credit markets because in such markets, enforcement cost is prohibitively high. As a result, lenders would end up undersupplying credit and in extreme cases, they might even cease to lend, a situation that is very common in developing countries’ credit markets. The undersupply of credit in the credit market is therefore referred to as market failure.

Information asymmetry leads to adverse selection and moral hazard that ultimately result in market failure. According to Besley (1994), adverse selection occurs when lenders do not

have perfect information (particular characteristics) about borrowers, for instance borrowers' preference of understanding risky projects. In such a situation, lenders will not be able to estimate the borrowers' likelihood to repay the borrowed funds with certainty; hence, there exists a possibility of borrowers not repaying the borrowed funds. Therefore, in order for lenders to at least break even and remain in business, they must charge borrowers a risk premium above their opportunity cost. However, raising interest rates to counteract possible losses comes with potential 'adverse selection', asserts Besley (1994).

According to Armendáriz de Aghion and Morduch (2000), adverse selection occurs when lenders are unable to distinguish between higher risk and lower risk borrowers. Thus, in order to compensate for the possible risk, due to information asymmetry, the banks opt to raise the average interest rate for all borrowers. Armendáriz de Aghion and Morduch (2010) claim that this often drives less risky borrowers out of the credit market. Once the safer customers are driven out of the market, only the riskier ones remain, hence adverse selection.

In contrast, the problem of moral hazard arises when the lender is unable to detect accurate intentions (hidden actions) of the borrower (Rao, 2012). According to Armendáriz de Aghion and Morduch (2010), moral hazard occurs due to one or two possible reasons. Firstly, moral hazard occurs when lenders are unable to ensure that borrowers are making the full effort required for their investment to be borrowed. Secondly, Armendáriz de Aghion and Morduch (2010) maintain that moral hazard occurs when borrowers have indeed realised profit from the investment for which the funds were borrowed for but simply try to escape with lenders' money (the problem of enforcement). These are what Giné, Goldberg and Yang (2012) termed *ex ante* moral hazard and *post ante* moral hazard.

According to Gine *et al.* (2012), *ex ante* moral hazard is the possibility of borrowers not putting adequate effort into an enterprise as intended whereas *post ante* moral hazard is the possibility of borrowers not settling their loans irrespective of an enterprise profit being sufficient for repayment.

3.2.2 Government intervention to market failure

Until well into the 1980s, governments and development cooperation agencies attempted to promote growth in smallholder agriculture and in the small and microenterprise sector by

providing the sector with subsidised loans. The hope was that this would cause the informal credit sector, which was regarded as being usurious, to dry up. However, this did not have the intended effect of improving smallholder farmers' access to finance. Instead, it caused the credit market to become even more segmented or gave rise to segmentation where none had existed previously (Tschach, 2002). Due to this failure, the preponderance of views in the 1980s and 1990s was that government policies in the financial sector should focus on reforming institutions, developing infrastructures to take advantage of technological advances, encouraging competition and providing the right incentives through prudential regulations (see Demirgüç-Kunt & Beck, 2008).

The resurgence of literature in recent times ponders government intervention with emphasis on the creation of appropriate lending channels and institutions that could provide credit, especially in the agricultural sector. This strand of literature has been boosted by the performance of government-sponsored credit guarantee schemes and equity injections into state-sponsored institutions in Latin America and India (Christiano & Ikeda, 2012; Craig, Jackson & Thomson, 2007). Lerner (2002) argues for the need of government intervention in areas that are not attractive to the private sector in order to address the finance gap although he emphasises that this should be done according to a very well-defined set of funding criteria (see also Cressy, 2002). Jessop, Boubacar, Marjan, Abdallah, Job and Bert (2012) emphasise that these government interventions in rural financial markets should generally focus on piloting innovations (through seed money) and providing support for institutional development rather than introducing large-scale credit programmes through public institutions.

The consequences of management weaknesses by development banks that were created in many African countries after their independence (with a view to achieving modern agricultural credit) provided little credit to agriculture. These consequences were poorly adapted procedures, exaggerated operation costs, inadequate strategies in the event of low yielding crops, certain farmers attempting to dodge repaying loans and loans granted according to political rather than technical criteria. As a result, the majority of farmers were left outside any institutional financial circuit (Doligez, Lemelle, Lapenu & Wampfler, 2010; Perret & Mercoiret, 2003).

The theme of this study was supported by the fact that governments of the Organization for Economic Cooperation and Development (OECD) countries are convinced that there are enough reasons to justify the need for government intervention in SME finance. This is because SMEs in many emerging markets do not have access to bank financing while they employ a large share of the labour force and account for a large part of the national income (OECD, 2006). As a result, policy efforts targeted at the SME sector have often been accepted on the argument that the SMEs are constrained by institutional and market failures (Beck, 2013). Carter (1988) identified market imperfections to include interest rate ceilings, usually imposed by government, lack of information, monopoly power in credit markets, large transaction costs incurred by borrowers and moral hazard problems.

Most small-scale enterprises and to a slightly lesser degree medium-scale enterprises find it difficult to obtain working capital or long-term credit needed for capital investment on an adequate or timely basis and on reasonable terms. This is caused by various issues including substantial collateral to guarantee the loan and enforcement problems. Enforcement problems arise when a borrower is willing but unable to repay. This constitute features of rural credit and make it more difficult for financial institutions to lend, thus resulting in market failure (Besley, 1994; IFC, 2011; Kinsey, 1987; Perret & Mercoiret, 2003; Zaidi, 2013). Carter (1988) believes that banks discriminate against small farmers when farm size is used as an indicator of individual characteristics.

While access to formal payment and savings services can approach universality as economies develop, the argument is not that everyone should qualify for credit. For example, Diagne and Zeller (2001) argue that besides credit, actual opportunities and other constraints such as access to markets, roads and infrastructure faced by farmers should also be considered in order for credit to work effectively; otherwise, giving credit is not of much use (see also Ulimwengu & Sanyal, 2011). However, the neglect of questions by economists related to the need for government interventions specifically in financing agricultural SMEs is lamentable.

This research undertook a case study mainly of Agribank and other relevant stakeholders involved in the financing of agricultural SMEs with a view to providing evidence of how market failure in the credit market could possibly be addressed.

3.3 LITERATURE REVIEW

This section outlines some of the conceptual issues regarding SME financing. In general, the definition of SMEs and the notion of access to finance for SMEs are discussed. An empirical literature review is zoomed into with regard to financial constraints for SMEs, the type of financing options available for SMEs as well as the ‘SME financing gap’. As explained earlier, the broader literature is covered in forthcoming chapters as per each specific research objective.

3.3.1 Definition of small and medium enterprises

The term ‘SME’ covers a wide range of definitions and measures, varying from country to country (Kroukamp, 2009; Migiro & Wallis, 2006). Some of the commonly used criteria for defining SMEs are the number of employees, total net assets, amount of sales and investment level (Ayyagari, Beck & Demirgüç-Kunt, 2007).

In the Philippines, SMEs are defined on the basis of either asset size or the number of employees (Asia-Pacific Economic Cooperation Agricultural Technical Cooperation Working Group, 2007). In Kenya, SMEs are grouped into micro, small, medium and large enterprises. SMEs with fewer than 5 employees are referred to as microenterprises, those with fewer than 49 workers are referred to as small enterprises, those with 50–99 employees are known as medium-scale enterprises while those employing 100 or more workers are classified as large-scale enterprises (Migiro & Wallis, 2006).

In India, SMEs are not defined by the number of employees but by the amount of investment. It is worth noting that a significant number of SMEs in India are involved in agricultural, horticultural, forest and nonforest production and that they generate much-required employment, thus preventing mass migration from rural to urban areas (Zaidi, 2013).

Given the basis on which SMEs are defined in different countries, Senderovitz (2009, cited in Amiss, 2012) is of the opinion that there is no ‘one best definition’ of SMEs and therefore SME definition should be the result of a deliberate and well-grounded choice taking the methodology, purpose and/or content of the study into account. In this context, the IFC

(2011) suggests that agribusiness SMEs can be thought of as those agricultural businesses that fit the general definition of an SME for a given country or region. In Namibia, the criteria used to arrive at a definition of small and microenterprises² include the number of employees, the turnover and the capital employed. The following definition in Table 3.1 has been given to fit the Namibian context.

Table 3.1: Definition of small and micro enterprises in Namibia

	Criteria		
	Employment	Maximum turnover	Maximum capital investment
Manufacturing	Less than 10	N\$1 000 000	N\$500 000
Other businesses*	Less than 5	N\$250 000	N\$100 000

Source: Tonin *et al.* (1998)

* = Agricultural SMEs fall in the category of other businesses.

3.3.2 Definition of agricultural SME finance

The IFC (2011:13) has defined agricultural finance as a “sectoral concept that comprises financial services for agricultural production, processing, and marketing. This includes short-, medium-, and long-term loans, leasing, savings, payment services, and crop and livestock insurance”. According to the IFC, agricultural finance heavily overlaps with SME finance in the agricultural sector; therefore, agricultural SME finance is defined as financial services for small and medium enterprises engaged in agricultural production (i.e., farming) and production-related activities, such as input supply, processing, trade, wholesaling and marketing (IFC, 2011).

There are four types of farmers engaged in primary agricultural production that would be considered SMEs:

² The acronym ‘SME’ in Namibia stands for small and microenterprises; in this study, the acronym refers to small and medium enterprises.

1. Semi-commercial smallholders, also referred to as subsistence farmers: They do not farm to make any profit but farm to survive.
2. Commercial smallholders: They produce surplus crops that may be sold for cash.
3. Medium-sized farmers: They produce meaningful income from farming, and part of the land owned may be used for commercial farming. They are also known as ‘emerging’ farmers.
4. Large farmers: They produce and market their output in a professional manner and have access to a full range of financial services (IFC, 2011).

Because subsistence farmers do not produce to make a profit and often do not have access to financial institutions, although financial inclusion is important, this study concentrated specifically on commercial smallholders and medium-sized farmers because these produce to make a profit.

3.3.3 Access to finance for SMEs

Many people in Namibia who want to start up their SMEs are confronted with the problem of accessing finance for starting up their businesses. This is usually evident in newspaper articles in which people write about their frustrations and opinions. The quote below is evident of this:

It was on 25 February 2013 that I went to the bank and asked them the requirement to get a loan of N\$100 000. I was given a list to comply with; I made sure all the necessary documents were in order for me to meet the bank’s standard requirement. I was then informed by the bank that they can only give me a loan if I am able to pay back within 12 months, and looking at the nature of my business proposal it would take me two to three years to pay back their loan. I was further informed that the bank is only assisting short term business activities such as tenders. I was advised to venture into tendering (Kandume, 2013:1).

The challenges faced by Kandume are not unique. In recent years, difficulty in obtaining finance for start-up SMEs and the associated preferences by financial institutions have increasingly been cited as binding constraints to growth among entrepreneurs. According to

the World Bank report on access finance 2007, there are two major factors that inhibit access to finance: Firstly, financial institutions have difficulty offering loans to poor and remote borrowers at an affordable cost. This is more common in Africa because of small national and local markets that are made worse by low geographic population density and economic isolation in rural areas. Secondly, there is the difficulty of assessing which borrower is worthy of credit and enforcing contracts in Africa (World Bank, 2007). The difficulty of assessing which borrower is worthy of credit is caused by a lack of information between the lender and the borrower, and this has financial implications for the two parties that can create a wide gap between available and accessible funds. In addition to the difficulty in securing a loan, it is also likely that some financial institutions are holding back cash for companies (or individuals) that are already in their portfolios (Watts, 2009).

Factors such as inherent risks associated with agricultural production, the high cost of administration of agricultural loans, the inability of farmers to provide the necessary collateral and the fact that most banks operate in an urban area far from people in rural areas who practise agricultural farming result in a further decline in agricultural production loans (Olaitan, 2006). The Making Finance Work for Africa (MFW4A) task force found that in Africa, only about 10% of the total funds of financial institutions went to agriculture (World Bank, 2007). It is of the utmost importance that financial institution branches be set up in rural areas closer to rural agricultural SMEs because in this way, more people will be able to travel to banks and obtain the necessary information. It will also provide an opportunity for banks to make better informed decisions about their borrowers and cause a reduction in unemployment in rural areas as a result of newly established financial institutions.

Both financial providers and SMEs face a challenge when it comes to having accessible finance because every party wants to gain something from the borrowing and lending process. Banks want to lend money to earn interest and ultimately make a profit while SMEs want to borrow affordable funds to set up their businesses at a cheaper rate. The OECD argues that the agribusiness is a sector that is full of potential and if this is tapped into, it could support economic diversification in the country (Pretet, 2013).

3.4 EMPIRICAL LITERATURE ON SME FINANCE

3.4.1 The financial constraints for SMEs

In a special issue containing papers presented at the Financing SMEs conference held in Brussels in September 1995, Cressy and Olofsson (1997) posit that three main sources of demand- and supply-side constraints have been identified, namely management, labour skills and access to finance. The methods of evaluation used by the banks to assess small business loans may be a source of financing constraints on business. In a perfect market, all projects with a positive net present value should be funded. However, banks tend to argue that either the assessment of future cash flow is impossible or that they, as lenders, are not equipped to assess it.

Using the World Business Environment Survey of 1999 and 2000, a unique firm-level survey was conducted in more than 80 countries and it was found that firms in countries with high levels of financial institutions experience fewer financing obstacles than firms in countries with less developed financial institutions (Beck & Demirgüç-Kunt, 2006). The database provides information on the obstacles faced by firms and allows researchers to relate these obstacles to the growth of the business. The World Business Environment Survey shows that factors such as size, age and ownership are the predominant causes of financing obstacles.

In investigating whether lack of funds was the main obstacle to growth, Pissarides (1999) used data from the European Bank for Reconstruction and Development, which used data from a set of enterprise surveys by the World Bank between 1991 and 1993 in Hungary, the Czech and Slovak Federal Republic, Poland and Russia. Pissarides cites liquidity constraints, managerial constraints and transaction costs as some of the reasons why small firms find it hard to grow and survive although not much empirical work has been done to test these factors. The data from the European Bank for Reconstruction and Development indicate that most enterprise creation take place with capital from relatives and friends. Capital from financial institutions in transition economies is unavailable except from specially designed programmes (Pissarides, 1999).

An econometric analysis and a sample survey of small firms were conducted in Slovenia by Bartlett and Bukvič (2001) to identify the critical barriers to small business growth and development. The authors found that financial barriers included high cost of credit, relatively high bank charges and fees, high collateral requirements and a lack of outside equity and venture capital. Information asymmetries between lenders and borrowers make it hard for banks to determine the real value of a project and lead to credit rationing.

In South Africa, the findings of an exploratory, descriptive and qualitative research study by Mbonyane and Ladzani (2011), who used semi-structured interviews to explore the factors that hindered the growth of small businesses in South African townships, showed that small businesses sometimes failed not because of a lack of support from financial institutions but because of their own internal weaknesses that made it difficult for them to obtain access to finance. The weaknesses identified by Mbonyane and Ladzani included unlicensed businesses, poor record keeping and poor financial management, for example absence of a reliable track record. Mbonyane and Ladzani went on to conclude that there was a lack of information distribution between SMEs and the government and that was why lending was limited.

3.4.2 Financing options for SMEs

Financing options in this study meant different forms of financing, either monetary or nonmonetary, that financial institutions offer offered to SMEs. These could also include different lending criteria. A number of papers have been written on different financing options available for SMEs. Some authors have reported positive effects while others have reported certain drawbacks with regard to different lending options.

In Serbia, a study on bank lending to SMEs was conducted using standard questionnaires and detailed on-site interviews with eight banks. The study found that the financing options provided by banks in Serbia included working capital and investment finance as well as other credit-related products, for example credit cards, overdrafts and guarantees. The most important lending products were found to be short-term loans and overdrafts. According to the World Bank, the types of products offered to SMEs are not much different from what is

offered to larger companies. The larger foreign banks offer a larger range of products and more sensitive pricing than the domestically owned banks (World Bank, 2012).

In an article on the discussions that took place on 26 April 2012 at the OECD financial roundtable with participants from the private financial sector, Wehinger (2012) stated that mezzanine financing³ was proposed as a financing option of providing finance to SMEs. He went on to say that new policy efforts to promote new lending by banks to SMEs such as reducing the cost of borrowing, at least during the transition stage of a business, could also be used. Equity financing was also identified as another option that could be considered by banks instead of debt financing.

However, an internal report of the supply-side regulatory review of 2002 in Pretoria, South Africa, by the Task Force Group of the Policy Board for Financial Services and Regulation argued that although equity finance had advantages for SMEs, some of which were that dividends were paid only once a business had made a profit and the holders of equity were business partners themselves, it had disadvantages as well. Some of the disadvantages that the task force reported were that unlike interest, dividends were not deductible from tax and that for competitive reasons, shareholders might demand greater disclosure than the owner would be willing to make. The task force reported that with equity finance, financiers were advantaged in a way that businesses that turned out to be successful would always assess the cost of the funds that they received and eventually settle their debts and request more funding (The Task Group of the Policy Board for Financial Services and Regulation s.a).

In developing an alternative model of financing SMEs in Ghana, Akorsu and Agyapong (2012) observed that existing funding institutions were tormented by several problems and therefore they proposed a model called the SMEs network fund model (see Figure 3.1) The model derives its foundation from three theories: the social network theory, the social exchange theory and the theory of large numbers. The social network theory is of the view

³ Mezzanine finance is used by “companies that are cash flow positive to fund further growth through expansion projects, acquisitions and recapitalization” (Silbernagel & Davis, 2003:2).

that SMEs may gain great advantage from collaboration and forming relationships and subsequently knowledge exchange. The social exchange theory explains that business partners need to share their knowledge with others rather than to withhold information for their own strategic advantage. The theory of large numbers is mostly used by insurance companies and individuals who have little funds to invest (Akorsu & Agyapong, 2012). This could be applied to agricultural SMEs in the sense that resources are pooled together into a fund from time to time by different stakeholders including SMEs themselves and SMEs could have access to the fund at a cheaper rate than other lenders. A manager can be employed to manage such a fund. In this way, information is shared by stakeholders in the fund and networks are formed.

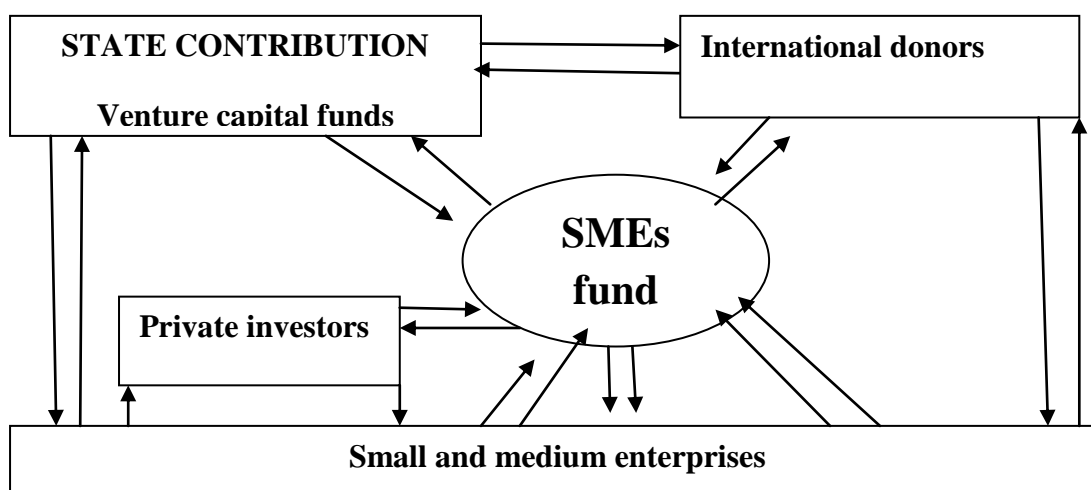


Figure 3.1: The SMEs network fund model

Source: Akorsu & Agyapong (2012)

As stated above, a fund manager will scrutinise received applications to offer advice and counselling to the applicants on how to utilise the funds. Moreover, funds accessed from the SME fund will require no collateral. Unlike existing schemes, the SME fund will be headed by volunteers from the SMEs, representatives from government, representatives from international bodies and other institutional investors (Akorsu & Agyapong, 2012).

3.4.3 SME financing gap

A study in Western Australia that used three focus group discussions, a mail survey and a review of literature to investigate both the supply- and demand-side issues for SME owners found a strong link in the literature between the availability of finance and SME growth, leading to the belief of the existence of a finance gap, which implies that there may be major ‘barriers’ preventing an owner’s access to equity (Watson, Newby & Mahuka, 2009).

The G-20 Global Partnership for Financial Inclusion SME Finance Sub-Group reports that many SMEs in different sectors may not have the security required for conventional collateral-based bank lending or high enough returns to attract risk investors while their financial requirements are too large for the type of finance that they require. This has led to speculations of an SME finance gap, particularly in emerging and developing countries (IFC 2011).

Doran *et al.* (2009) in the Oxfam research report refer to the agricultural finance gap as a ‘missing middle’, which means that loans are rarely provided in the range between where small amounts of finance requested end and where large amounts of finance commence. In general, agricultural SMEs borrow funds that are too small and they are considered risky, hence the existence of a gap.

Because of the persistent financing gap, existing SMEs’ financing interventions can be classified into two options, namely official schemes and financing provided by financial institutions. Official schemes are schemes introduced by government, either alone or with the support of donor agencies, to increase the flow of financing to SMEs (Mensah, 2004). Financial institutions can include commercial banks, insurance companies, discount houses, finance houses, leasing companies’ savings and loans associations, credit unions and stock exchanges. Added to these are several rural banks. Because of the lack of collateral and/or credit history, most farmers are bypassed not only by commercial and national development banks but also by formal microcredit institutions (Hoff & Stiglitz, 1990). In addition to their own savings, farmers therefore rely on incomes of friends and relatives, remittances and informal moneylenders (Salami, Kamara & Brixiova, 2010).

3.5 CONCLUSIONS

This chapter has provided the theoretical framework that guided the study and a brief review of the literature with regard to SME finance. The aim was to provide a picture of the financial constraints faced by SMEs in general. There are key financial barriers affecting SMEs as a result of information asymmetry between lenders and borrowers. This is a sign of market failure, and government intervention could play a role in piloting innovations in lending to support SMEs in their growth.

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Chapter 4

OVERVIEW OF THE METHOD OF ANALYSIS

4.1 INTRODUCTION

This chapter provides a brief outline of the methodology applied in this study. Due to the structure of the dissertation, each paper undertakes a deeper analysis of the methodology relevant to the specific objective of the paper, as outlined earlier.

4.2 METHODOLOGY

The research methodology for this study derived from the objectives. In using a qualitative methodology, a case study research design by way of in-depth semi-structured interviews and document analysis was followed. According to Creswell (2013), qualitative research is an approach for exploring and understanding the meaning that individuals or groups assign to a social or human problem. The qualitative methodology was considered to be appropriate for this study because the researcher's aim was to interact with people in their natural settings, using a language that they understood and then finding out what meanings they attached to financial access for agriculture. Talking to participants in their natural settings was helpful in exploring and gaining insight into the topic under investigation.

A case study provides a deeper understanding of a phenomenon. It assists in exploring a case using a number of data sources (Baxter & Jack, 2008). Baxter and Jack suggest that in choosing a case study research design, one must consider the type of case study to be conducted and the decision should be guided by the overall study purpose. Yin (2009) and Stake (1995) describe a variety of case studies. Yin categorises case studies as explanatory, exploratory or descriptive. Stake (1995) uses the terms 'collective' and 'intrinsic' in differentiating case studies and suggests that when several cases are conducted to form a collective understanding of the issues or questions, it is referred to as a collective case study and when a case is studied for the intrinsic interest of the case itself, it is referred to as an

intrinsic case study. This research was an exploratory study with both a collective and an intrinsic nature.

4.2.1 Why the case study approach was the best methodology for this study

A case study compared to other approaches such as survey research allows the researcher to use a combination of different sources of evidence (Cooper & Schindler, 2011). The case study strategy has a considerable ability to generate answers to the ‘why?’, ‘what?’ and ‘how?’ questions, and for this reason, these types of questions are often applicable in explanatory and exploratory research (Saunders, Lewis & Thornhill, 2007).

The researcher believed that a case study was the best methodology to use because the study intended to explore, build on existing theory from multiple perspectives and then contribute to the understanding of access to finance among agricultural SMEs in Namibia, financial providers such as Agribank, policy makers and other stakeholders by answering the ‘what’, ‘why’ and ‘how’ questions. This study sought to investigate a contemporary phenomenon within the financial institutions/participants’ real-life settings by using multiple data collection methods. In other words, the aim was to understand the depth rather than the breadth of the issues concerning access to finance on the ground. Hence, the researcher believed that the data needed for this aim could be gathered more effectively by using this approach as opposed to others.

4.2.2 Semi-structured interviews and documentary analysis approach

A semi-structured interview is a verbal interchange between two people whereby one person, the interviewer, attempts to elicit information. Although the interviewer prepares a number of questions well in advance, semi-structured interviews unfold in a conversational manner, offering participants the chance to explore issues that they feel are important (Longhurst, 2009). Semi-structured interviews allow the researcher to follow his or her own thoughts, and probing techniques are allowed (Cooper & Schindler, 2011).

Secondary data and documents such as research reports, policies, newspaper articles, relevant financial institutions’ annual reports, and published and unpublished journal articles related to the topic were used to supplement the semi-structured interviews.

4.3 SAMPLE METHOD AND SITE SELECTION

The idea behind qualitative research is to judiciously select participants or sites (or documents or other materials) that will best help the researcher to understand the problem and the research question (Creswell, 2003, cited in Grobler, 2010). One way of sampling suggested is purposive sampling. Purposive sampling is used when the researcher uses his or her own judgement to select cases that will best enable him or her to answer the research questions and meet the objectives. This is mostly used when working with very small samples such as in case study research. Purposive sampling is a nonprobability method of sampling⁴ whereby respondents are chosen according to the researcher's judgement as to their suitability for the projects. It is also referred to as judgement sampling (Sarantakos, 2005). This study utilised a purposive sampling method.

Unlike probability sampling, in nonprobability sampling methods, there are no rules when it comes to selecting the sample size. The sample size depends on the research objectives for the research question(s) (Saunders *et al.*, 2012). The following criteria were included in choosing participants and research sites in Namibia:

1. Participants had to be involved in primary production with a farm size between 3 and 12 hectares.
2. Participants had to produce to sell and not for family consumption.

Table 4.1 below provides the population list of the Green Scheme projects that fitted the criteria above that the researcher was presented with by the Agricultural Business Development Agency (AGRIBUSDEV) office in Windhoek, Namibia.

⁴ Because the dissertation is made up of four different but thematically connected research papers, each paper had a different sample size and this is indicated in each of the forthcoming research papers. This chapter only provides the population list.

Table 4.1: Population list of Green Scheme projects

Green Scheme projects	Number of farmers (with valid contracts⁵) in a Green Scheme project	Region
1. Etunda Green Scheme Irrigation Project	9	Omusati Region
2. Uvhungu-Vhungu Green Scheme Irrigation Project	10	Kavango East Region
3. Hardap Green Scheme Irrigation Project	13	Hardap Region
4. Ndonga Linena Green Scheme Irrigation Project	28	Kavango East Region
5. Shadikongoro Green Scheme Irrigation Project	13	Kavango East Region

Source: Nambili (2014)

To have a clear idea of the location of the Green Scheme projects in the country, see the map below:

⁵ The researcher only received the population list of farmers whose farming lease contracts had been renewed at the time of the interviews from AGIRBUSDEV. The real number of farmers may be more than reported in this dissertation.

rukwangari.), a person was used to help with translation in the Kavango Region as the researcher could not understand the language. The collected data were reported in such a way that persons could not be identified. The interviews lasted no more than 45 minutes each. The interviews were conducted between September and December 2014 and again during December/January 2015 at the interviewees' places of work, which were located mostly at the Green Scheme projects on the demand side and bank offices on the supply side. The interviews were taped and transcribed for analysis, and anonymity of the participants was ensured.

4.5 DATA ANALYSIS PROCESS

If qualitative research is to yield meaningful and useful results, it is imperative that the material under scrutiny be analysed in a methodical manner (Attride-Stirling, 2001; Pope, Ziebland & Mays, 2014). Content and thematic analyses were the main techniques for data analysis. To support the analysis, the software ATLAS.ti was used. For a computer-assisted analysis, Friese (2014) suggests the use of the NCT approach – Noticing things, Collecting things and Thinking about things (see Figure 4.2).

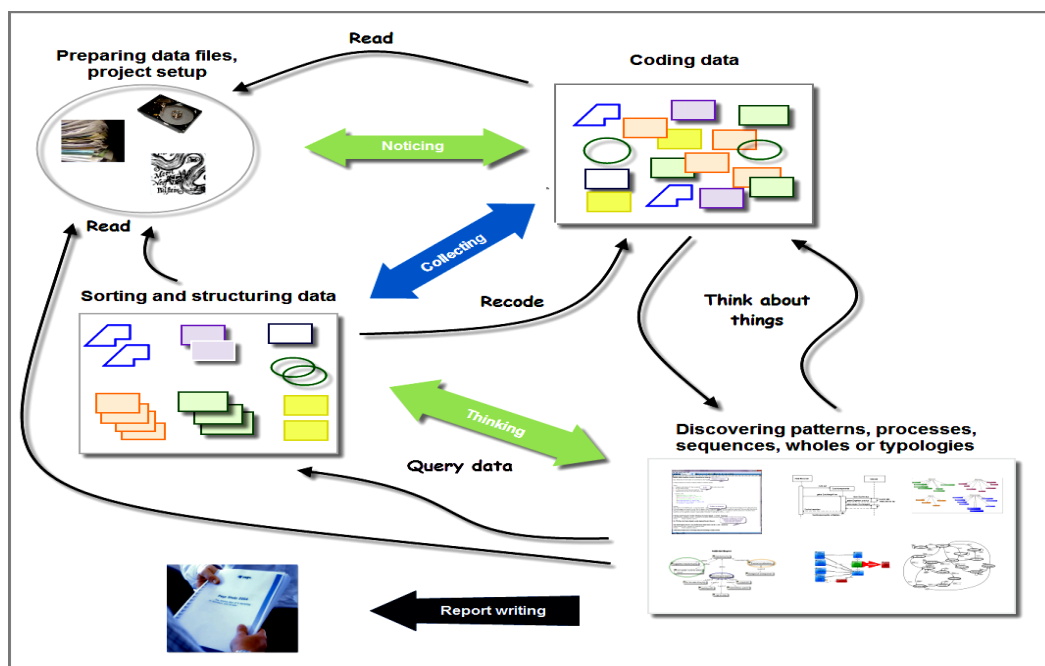


Figure 4.2: The NCT model

Source: Friese (2014:15)

Noticing things according to Friese (2014) refers to the process of finding interesting things in the data when reading through transcripts, field notes, documents, reports and so forth. After data collection, interviews were transcribed, read through, cleaned up and uploaded into the ATLAS.ti software. It was during this process that noticing things in the data started. After the researcher had noticed the right information in the data pertinent to the research questions, collecting things began.

Collecting things refers to the process of naming things that one has noticed and grouping those things that belong together or have the same name. This is referred to as coding. Codes relevant to the research questions were created, and themes were established. Data were then systematically examined to see ways in which themes were portrayed. This study employed an open coding with both an inductive and a deductive framework approach. Coding is defined by Cooper and Schindler (2011) as categorising and combing the data for themes, ideas and categories and then marking similar passages of text with a code label.

Thinking about things refers to the ability to think about things that one has noticed and collected in order to find patterns and relations in the data. The categories were refined

through a repetitive glance at the data. During this process, subcategories or new categories of themes were identified and analysis continued until no new categories emerged. The research question memoranda were then set up and linked to the various types of constraints identified in the data.

Using the NCT method of analysis enables an analyst to work in a systematic manner (Friese, 2014). The main aim is to put all the findings together and gain a coherent understanding of the phenomenon.

In the findings section, illustrative comments are presented in the form of quotes for the various themes in order to provide a sense of what participants actually experienced.

4.6 LIMITATIONS OF THE STUDY

There are certain limitations that are associated with qualitative research. These limitations as outlined by Sarantakos (2005:46) include:

1. Efficacy.-qualitative research is unable to study relationships between variables with the degree of accuracy that is required to establish social trends or to inform social policies.
2. Representativeness – qualitative research is based on small samples and hence does not produce representative results
3. Generalisability – Findings in qualitative research cannot be generalised
4. Objectivity – the methodological approach does not ensure objectivity, and hence the quality of the findings is questionable.
5. Validity and reliability – the research structure and procedure do not ensure the validity and reliability of methods
6. Replicability – Given the individualist and subjectivist nature of qualitative research, replicability of studies is not possible
7. Ethics – The nature of research that allows close contact with respondents can lead to ethical problems

8. Time - Qualitative inquiry is very time consuming
9. Costs – Qualitative research is very expensive.

The above limitations are characteristics to the nature of the research and should be seen in their contexts as strengths and not weaknesses. Furthermore, many of the aspects are different and not inferior. For instance validity and reliability are observed in qualitative research but in a way that is different from (not inferior to) those employed in quantitative research.

Some of the limitations pointed out above applied to this study. Namibia is a country with a highly dispersed population, the research only covered a small number of farmers, especially those without Agribank loans, and this may have created some bias. The reason for this is that independent farmers are difficult to locate because they are not farming in one place as compared to Agribank loan holders who are mainly found in Green Scheme projects. Nevertheless, many of the participants were representative because one farmer with an Agribank loan in a particular Green Scheme project could also have represented the entire Green Scheme in a region because of repetitions in farmers' interviews and therefore data saturation. The study mitigated the limitations by ensuring that both private and Green Scheme farmers were included in the study and ensuring regional representation. Furthermore, the research design employed allowed for the sample size used in this study.

4.7 CRITERIA FOR JUDGING THE QUALITY OF THE RESEARCH

According to Yin (2009), there are criteria to consider in judging the quality of the research. These are construct validity, internal validity, external validity and reliability. For this study, quality was ensured by doing the following:

Qualitative credibility is achieved through practices including thick description, triangulation or crystallization, multivocality and partiality (Tracy, 2010). This study has provided a thick description of the data and used triangulation methods that ensured its validity. For construct validity, multiple sources of evidence, namely interviews, secondary data and document analysis, were used. The secondary data documents provided the necessary information to make cross-references for the inferences from primary data.

For external validity, the results from this study may only be generalised to relevant theory used in carrying out the study and not to the population.

The reliability of the data for this study is solely attributable to the answers given by the interviewees. The procedures used in carrying out the study were documented to allow data collection and analysis by another researcher.

Internal validity is about establishing causal relationships. Because this study did not measure any relationships, internal validity is not applicable to the study.

4.8 CONCLUSIONS

This chapter has provided an overview of the methodology used in the study. A qualitative approach (using multiple sources of evidence) was adopted in order to understand issues at the grassroots level. The researcher employed a purposive sampling method to ensure that the research questions were answered by the right participants. The chapter has also highlighted the limitations of the study and criteria for judging the quality of the research.

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Chapter 5

CONSTRAINTS TO FINANCING AGRICULTURE IN NAMIBIA⁷

5.1 INTRODUCTION

Sir Paul Collier, the British mainstream economist, has consistently denounced small-scale agriculture in Africa. Recently, he and his colleague (Stefan Dercon) claimed that “trying to fix market imperfection problems in the credit market is the best solution not promoting smallholder agriculture” (Collier & Dercon, 2014:93). The experience of Namibia, however, shows that Collier’s analysis is oversimplified. The country is pursuing a smallholder-driven approach (MAWF, 2008) with constraints and opportunities that defy Collier’s dualism. One of the desired outcomes of the NDP4 is for agriculture to experience average real growth of 4% per annum over the NDP4 period 2012–2017. As a major strategy towards the realisation of this goal, continued financial and technical support is expected to be offered to those involved in agricultural production activities (NPC, 2013). This strategy warrants careful study, particularly because while smallholder activities abound in Africa (Elhadary, Samat & Obeng-Odoom, 2013), the state in Africa – much like described by Collier – has tended to be quite antagonistic to farming on a small scale, preferring instead to promote commercial and large-scale agriculture (Obeng-Odoom, 2015).

Our knowledge of small-scale agriculture, particularly its financial aspects, remains inadequate even though financial services in Africa continue to expand (Abor, Alagidede, Ocran & Adjasi, 2014; Both, 2015). Research on financial development in Africa has also grown in recent times (see e.g. Domeher, Frimpong & Appiah, 2014; Gwama, 2014; Mazanai & Fatoki, 2012; Ndikumana, 2001), but it does not centre on agriculture, a focus that can help to advance the global debate on financing development (see Both, 2015) and development finance more generally.

⁷ This paper has been accepted for publication by the *African Review of Economics and Finance* and will appear in the December 2016 issue.

The paper addresses this gap by relating the research on finance to the financial constraints faced by SMEs in agriculture. Theoretically, the paper focuses on the so-called logic of market failure and, as a result, the need for government intervention. Eyiah and Cook (2003) cite imperfections in financial markets as one of the specific constraints to financial access for SMEs. Beck, Demirgüç-Kunt and Maksimovic (2005) identified these imperfections as collateral requirements, bank paperwork and bureaucracy, high interest rates in comparison with the profitability of agricultural activities, the need to have special connections with banks, lack of money in the banking system and lack of access to financing for leasing equipment. However, Beck and Demirgüç-Kunt (2006) found evidence that it was not only market imperfections that impeded SMEs' access to financial services but also their institutional weaknesses. Put simply, real-life markets contain varying and systemic degrees of imperfections from both the demand and the supply side (see Minot, 1986).

The formal contribution of this paper lies in the new data collected and the methodology adopted. Most of the literature on this topic in Namibia and elsewhere has used secondary information that was either from census data (e.g. Adongo & Deen-Swarray, 2006; High Level Panel of Experts, 2013; World Bank, 2013) or panel data and/or regression analysis (e.g. Guirkingner & Boucher, 2008; Obeng, 2008; Reyes, Lensink, Kuyvenhoven & Moll, 2012). Although these studies have provided a 'big picture' of financial access for small businesses, they have not paid sufficient attention to the complexities that both farmers and financial organisations face every day that might have an impact on poverty in local communities. This paper, in contrast, goes further to describe and explain the phenomenon surrounding constraints to financing agriculture from the 'ground' using a naturalistic approach with narratives that highlight and illustrate key issues. This alternative approach reveals that a lack of collateral and poor loan recovery on the supply side and insufficient capital, bureaucracy and lack of collateral on the demand side are the biggest constraints to financing agricultural SMEs from formal financial institutions.

Following this introduction, the rest of the chapter is structured as follows: Section 5.2 provides a conceptualisation of financial constraints and agricultural SME finance followed by a review of the literature on financing constraints in Section 5.3. The methodology for

sample size is explained in Section 5.4. The results are presented in Section 5.5, and Section 5.6 makes up the discussion and summary.

5.2 CONCEPTUALISING FINANCIAL CONSTRAINTS AND AGRICULTURAL SME FINANCE

The definition of a ‘financing constraint’ or ‘credit constraint’ comes from the work of Stiglitz and Weiss (1981, as cited in Reyes *et al.*, 2012). According to the definition used, certain individuals obtain loans while other individuals, who are willing to borrow at precisely the same terms, do not. Because lenders may take on risky project applications only at high interest rates, they refuse to raise the interest rate to eliminate excess demand and, consequently, may ration their supply of credit. This type of credit is referred to as quantity rationing and is therefore a supply-side credit constraint. On the demand side, risk rationing and transaction cost rationing are other forms of credit constraints identified. Risk rationing constraint refers to a situation where farmers may not seek a formal loan because the risk implied by the available credit contract is too high whereas transaction cost rationing constraint refers to a situation where farmers may not seek a loan simply because of high transaction costs. Growing empirical literature suggests that in rural areas of developing countries, credit constraints have significant adverse effects on farm output (Huppi & Feder, 1990), farm profit (Carter, 1988; Foltz, 2004) and farm investment (Carter & Olinto, 2003) whether for large-, medium- or small-scale enterprises.

Agribank refers to enterprises that are small, medium and involved in agricultural production as small- and medium-scale⁸ farmers as opposed to small- and medium-scale enterprises. Small-scale farmers are those who are farming on 3–6 hectares, and medium-scale farmers are those who are farming on 12 hectares. However, Kirsten and Van Zyl (1998) are of the opinion that the size of the land alone is not a good criterion to define small-scale farms. They argue that “Defining the ‘viable farm’ in terms of size alone had a profoundly negative effect on the relative profitability of farms smaller than the viable size” (Kirsten & Van Zyl, 1998:562).

⁸ For a detailed definition of SMEs, see Chapter 3.

This paper therefore combines the definitions of Agribank and Kirsten and Van Zyl (1998) to define a small-scale farmer as one who is farming on 3–6 hectares and has maximum annual turnover of less than US\$20 292. A medium-scale farmer is one who is farming on 12 hectares and has maximum annual turnover not exceeding US\$39 919. This paper argues that SMEs in the Namibian context shall be defined to include medium-scale enterprises as well. It would be ideal to review the existing definition to allow for comparisons.

Although the definition of agricultural SME finance⁹ found includes the whole value chain, this essay refers to agricultural SME finance as financial services for SMEs engaged in primary agricultural crop production (i.e. farming) and not the whole value chain.

5.3 EMPIRICAL LITERATURE REVIEW: IDENTIFIED FINANCING CONSTRAINTS

The literature on financing constraints in agricultural SMEs has developed around six themes, namely collateral and land issues, bank paperwork and bureaucracy, risk posed by seasonality with long gestation periods, poor access to markets and low profits, lack of skills in agriculture and information asymmetry. Each of these is reviewed in turn.

5.3.1 Collateral and land issues

Land is no doubt an important asset to have in agriculture as it not only helps to increase farmers' confidence in what they are doing but may also improve access to financial services. Trzeciak-Duval (2003) avers that well-established property rights, particularly regarding the use of land, are of particular importance in the agricultural sector because they lead to the possibility of using land as collateral and credit constraints can be eased. Similarly, Foltz (2004) used survey data of randomly selected households engaged in irrigated farming in the Cap Bon region of north-eastern Tunisia to measure the credit rationing of households. He emphasises that having title to land is expected to have a greater influence on supply than demand because it increases collateral and creates a direct relationship to supply while land

⁹ The conceptualisation of agricultural SME finance has been explained in the paper accepted for publication, In order to avoid too much repetition in the dissertation, the same definition of agricultural SME finance has already been provided in Chapter 3.

titles bring about an increase in demand through an investment demand equation, which in the end benefits lenders. This result is in line with the findings of Reyes *et al.* (2012:12) who used a panel data set from a survey conducted in 2006 and 2008 with 177 farmers and found that “possession of land reduces the probability of being credit constrained. Titled land may be used as collateral which helps formal financial institutions overcome adverse selection and moral hazard problem”.

While studies by Eswaran and Kotwal (1986) and Cabannes (2012) in addition to those reviewed above have stressed the importance of land tenure in order to have better access to financial services on both the demand and the supply side, Gilbert (2002) has a different opinion based on his data gathered in the self-help settlement of Bogota, Colombia. His results show that having title to land does not necessarily lead to formal access to credit. In other words, land ownership makes little or no difference to the availability of formal sources of credit. Because of transfer uncertainty, the bank may not accept land as collateral because it may not be able to repossess it in case of default. Even when borrowers have title to land, they may not be willing to borrow because of fear that they may not be able to repay the loan. Similarly, a critical review of the relevant literature on land registration, access to credit and agricultural investment by Domeher and Abdulai (2012) agrees with Gilbert (2002) in explaining that owning land has failed to enhance agricultural investment because the demand side does not provide an incentive for investment for reasons such as widespread poverty in Africa, a lack of appropriate agriculture-based infrastructure and the highly risky nature of agriculture in Africa. The supply side, namely lenders, in contrast, does not look at land registration in isolation but also looks at where that particular land is located and whether it can be used as collateral. In addition, lenders' views are that land registration does not change the profitability of agricultural activities or improve the repayment capacity of farmers. Domeher and Abdulai (2012) therefore conclude that the pursuit of land registration alone as an agricultural investment tool may fail unless critical factors are given priority. These include interventions by government to tackle the problems that have made African agriculture highly risky, unprofitable and unattractive.

Plainly, land is just part of the equation in gaining financial access, at least when it comes to agriculture, and not the solution. Beck (2013) surveyed the recent literature on the

relationship between SMEs, financial deepening and economic development and concluded that loan classifications that relied completely on collateral were biased against SMEs that had less hard collateral available. Perhaps other types of lending requirements, such as relationship lending, should be considered.

5.3.2 Bank paperwork and bureaucracy

Beck, Demirgüç-Kunt, Laeven and Maksimovic (2006), whose data were taken from the World Business Environment Survey conducted in 1999 and 2000 in 80 developing countries, argue that agricultural and construction firms face greater obstacles compared to service firms, especially when it comes to bank paperwork, bureaucracy and high interest rates. For SMEs, processing loan applications usually takes longer due to the number of forms that they must complete, which makes it more difficult for them to even think about gaining access to finance from a formal financial institution. Bureaucracy, or red tape as it is often referred to, generally involves completing seemingly unnecessary paperwork, obtaining unnecessary licences, having multiple people or committees approve a decision and having to abide by various low-level rules that make conducting one's affairs slower, more difficult or both (Martini, 2013). Rehber (1998) note that farmers who are involved in contract farming run the risk of nonrenewal or termination of contracts for noneconomic reasons and losing timely receipt of desired quality and quantity of their products.

In order to reduce the bureaucratic process, some countries have adopted measures developed by the OECD in 2006 to reduce the regulatory burden on SMEs. Process reengineering is one. Within these measures, timeframe is established and 'silence is consent'. This means that institutions have a timeframe in which to respond to financial requests, and failure to do so implies that all the necessary conditions have been met (Martini, 2013).

5.3.3 Risk posed by seasonality with long gestation periods

By isolating promising cases of emergent and innovative financing, risk mitigation and distribution models, the IFC identified key elements observed across various case studies in developing countries and found that challenges in lending to agriculture existed because of the risk associated with seasonality, with long gestation periods from planting to harvest. The result is that cash flows are highly seasonal and sometimes irregular, with earnings

concentrated in certain times of the year. Because of this, there is slow income from agricultural SMEs as compared to SMEs in other sectors. For a financial institution, this means that short-term agricultural credit may need to be repaid in ‘lumpy instalments’, sometimes over multiple seasons. It also means that farmers require flexible and targeted savings and term finance products to meet their specific needs. From the banker’s point of view, irregular repayment schedules make liquidity management more challenging and require costly investments in developing customised loan products in an unfamiliar sector (IFC, 2012).

Seasonality, especially with crops, has to do with the nature of agriculture, which is mainly rainfed. In Namibia, as a very dry country, seasonality poses a very big problem for farmers in terms of access to finance because it means that banks may not be willing to finance agriculture at all.

5.3.4 Poor access to markets and low profits

The main constraint faced by farmers is poor access to markets. In order to meet the demands of the consumers, food retailers usually need products that are packaged by their suppliers and are of high quality. Consumers usually look for these types of products from food retailers rather than straight from smallholders because the products from smallholders are perceived to be unclean and not of high quality. Based on a comparative analysis of international development activities in Africa, Latin America, Asia and the Near East, Minot (1986) claims that smallholders usually lack the capital to maintain the set standard and to meet this type of demand and that the lack of credible assurance of quality reduces the demand for a product to the point that the market disappears. Fibiger, Weber and Schnabel (2011) note that as a result of this, smallholders struggle to settle their debts because their profits are quite small due to marketing difficulties and harvest losses, and when the state steps in for those who are unable to pay back their loans, there are cases of abuse where loans are used for things other than the declared purposes. In Namibia, even if farmers produce, harvest and deliver their produce to relevant marketing agencies in the country, they still stand a chance of nonpayment for their produce, thus experiencing low profits. “After you

harvest, they take your produce and go. Officials threaten farmers with eviction from the State-owned vineyards if they complain about the non-payment” (Haidula, 2015:1).

5.3.5 Lack of skills in agriculture

On the one hand, using mainly secondary sources of information in examining the status of agricultural and rural finance in South Africa, De Klerk, Fraser and Fullerton (2013) argue that many financial institutions do not understand adequately how specialised the agricultural sector is and how difficult it is to succeed and/or transform from an emerging into a commercial farmer. On the other hand, the Agricultural Sector Skills Plan reports that farmers do not have the requisite skills to perform their work to an expected standard (Namibia Training Authority, 2013). However, Norton, Alwang and Masters (2015) posit that often the training provided in agriculture, especially in developing countries, does not correspond to the real conditions faced by farmers and that usually time spent in such training reduces time available for other relevant activities. The Ghana banking survey that used interviews with a number of stakeholders to sample their views on SMEs concluded that banks should invest in acquiring a good understanding of working with SMEs, irrespective of the industries or economic sectors that they operate in or the scale of their operations. This is crucial for banks-SMEs relationships and therefore important for the financial inclusion question (Pricewaterhouse Coopers Ghana, 2013).

5.3.6 Information asymmetry

Imperfect information is usually the main reason for higher transaction costs, especially in rural areas where farmers are located. The opinion of Bartlett and Bukvič (2001) whose research was based on a sample survey of small firms in Slovenia and on an econometric analysis of the sources of firms’ growth is that

Information asymmetries between lenders and borrowers make it hard for banks to determine the real value of a project, and lead to credit rationing Stiglitz and Weiss (1981 as cited by Bartlett & Bukvič 2001). The high risk of credit to SMEs with information asymmetry may explain the relatively high interest rates charged to those borrowers, and the demands made on SMEs by banks for high collateral and loan guarantees (Bartlett & Bukvič, 2001:182)

Aleem (1990) used 14 informal money market lenders and their clients in Chambar, Pakistan, to examine whether high implicit interest rates charged reflected the actual costs of operating in that particular market. He found that due to imperfections, the lender was not motivated to reduce interest rates in order to increase the number of borrowers, even when rates were well above the lender's marginal cost of lending. Imperfect information available to farmers about the terms on which loan contracts are being sold in the market implies that a lowering of interest rates is a signal that filters through to only a limited section of the market. This is a situation that occurs mostly with informal moneylenders; however, these types of lenders were beyond the scope of this study.

Trzeciak-Duval (2003) is of the opinion that sources of information are important to creditors to establish credit histories and to borrowers to obtain market information and to produce data. Because of a lack of information, a moral hazard problem usually arises. The latter normally occurs because individuals' actions cannot be observed and hence contracted on (see Holmstrom, 1979).

5.4 METHODOLOGY

Adopting the methodology explained in Chapter 4, the way in which questions were structured depended on whether farmers had received finance from Agribank or not and whether they were small- or medium-scale farmers (see appendixes A and B). The participants' history and experience decided which topics were important in the various interviews.

5.4.1 Sample size

To ensure that there was equal representation of the Green Scheme projects from the list provided¹⁰ in terms of the location of regions in the country, the following Green Scheme projects (with corresponding sample sizes) were judiciously selected per region on the demand side:

1. Etunda Green Scheme Irrigation Project – 5

¹⁰ The population list is provided in Chapter 4.

2. Hardap Green Scheme Irrigation Project – 6
3. Ndonga Linena Green Scheme Irrigation Project – 5

Table 5.1 in the results section shows the characteristics of all the participants.

On the supply side, two interviews were conducted at the Agribank Head Office in the Khomas Region and Oshakati Branch in the Oshana Region to determine the constraints that Agribank experienced in financing agricultural SMEs.

5.4.2 Research measures and justification of sample size

After ethics approval by the University of Stellenbosch Business School ethics committee and permission by Agribank had been granted, a total of 16 interviews were conducted for this paper (11 small-scale farmers and 5 medium-scale farmers were interviewed). Included in the 16 interviews were 3 independent¹¹ farmers in the same regions who were operating outside¹² the Green Scheme projects. These were Second Chance Garden in the Omusati Region and Pozere and Gamade gardens in the Kavango East Region.

The adequacy of only two interviews on the supply side is certain in the sense that besides Agribank having branches (six in total) in other regions, many of the decisions of these other branches go through Head Office (Khomas Region) before they are implemented. In addition, Oshakati Branch in the Oshana Region deals with farmers of various scales in four northern regions, which is the highest number of regions dealt with compared to the other four Agribank branches (in the Hardap, Kavango East, Caprivi and Otjozondjupa regions) that deal only with a maximum of one or two regions. Because of this, the researcher was sure to obtain more detailed information from the Khomas and Oshana regions than the other regions. On the demand side, the accessibility of the farmers, more especially farmers without Agribank loans, the willingness of participants to speak freely with the interviewer and data saturation determined the number of interviews conducted (see Mason, 2010). Furthermore,

¹¹ Independent in this dissertation means not receiving financial assistance from Agribank and/or operating outside the Green Scheme projects.

¹² Identified by way of snowball sampling.

the high level of homogeneity among the population resulted in 30 codes¹³ being developed just after the first 8 interviews and 40 codes after all 16 interviews (before the structured code list) on the demand side was sufficient to enable development of meaningful themes and useful interpretations (see Friese, 2014; Guest *et al.*, 2006, cited in Mason, 2010).

5.5 RESULTS

5.5.1 Characteristics of the participants on the demand side

Table 5.1 below shows that the majority of independent farmers own medium-scale farms compared to out-grower farmers who own small-scale farms.

Table 5.1: Characteristics of the participants

Characteristics of farmers without Agribank loans	Characteristics of farmers with Agribank loans in Green Scheme projects											
	Hardap		Kavango East		Omusati		Hardap		Kavango East		Omusati	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Sex												
Male	3	(100)	2	(100)	0	(0)	1	(50)	3	75	2	(50)
Female	0	(0)	0	(0)	1	(100)	1	(50)	1	(25)	2	(50)
Size of farm												
Small	0	(0)	2	(100)	1	(100)	1	(50)	4	(100)	3	(75)
Medium	3	(100)	0	(0)	0	(0)	1	(50)	0	(0)	1	(25)
Average number of years in business	2		8		3		2		4.25		9.5	
Average start-up cost	48 300		2 700		¹⁴		170 000		93 600		63 500	

Source: Authors' data, fieldwork, 2014

¹³ See Appendix D for the code book.

¹⁴ The interviewee did not want to divulge the information.

Note: Percentages may not add up to 100% due to rounding. Amounts are displayed in US\$.

5.5.2 Financial constraints – demand side

Demand-side constraints refer to difficulties experienced by borrowers, namely small- and medium-scale farmers, in accessing finance from financial institutions. Financing constraints were identified from two groups of farmers. One group included farmers who were receiving financial assistance from Agribank, and the other group was comprised of farmers without Agribank loans. Figure 5.1 below shows the constraints for farmers with Agribank loans, and Figure 5.2 shows the constraints for farmers without Agribank loans.

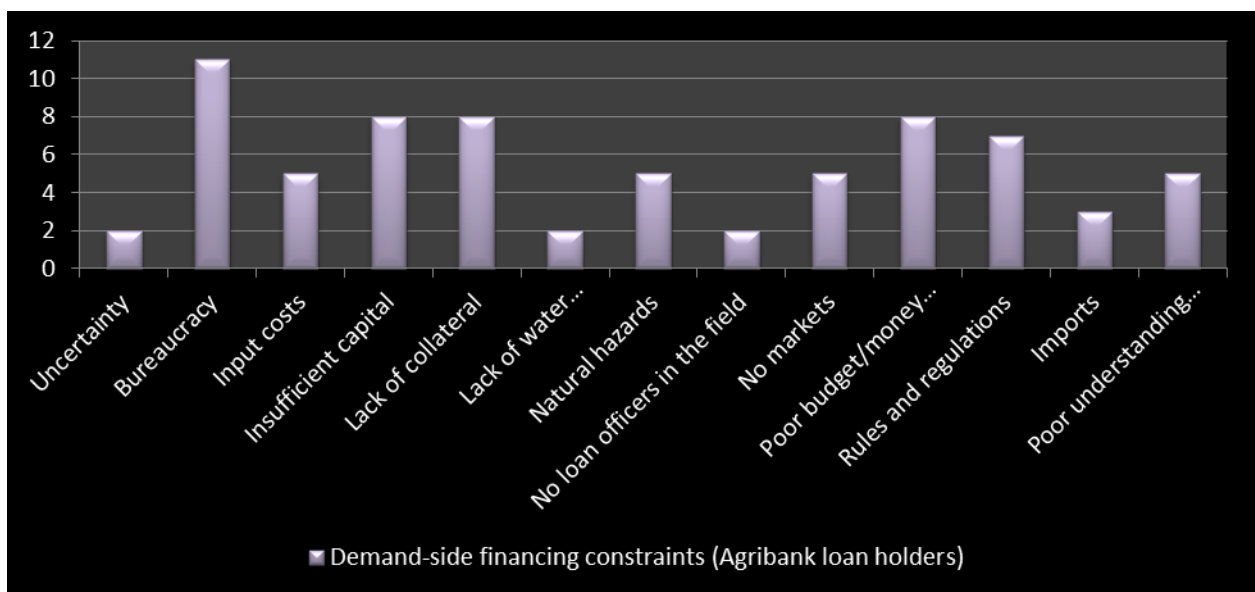


Figure 5.1: Financing constraints for farmers with Agribank loans

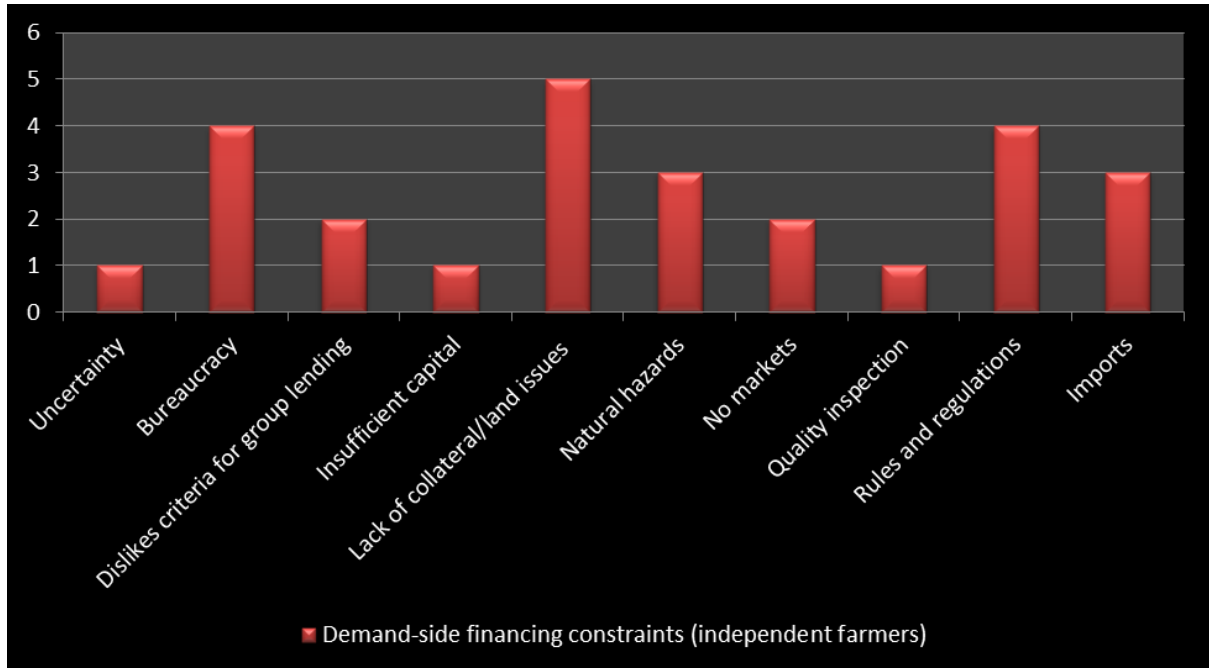


Figure 5.2: Financing constraints for farmers without Agribank loans

Source: Authors' data, fieldwork, 2014

In combining the two groups of farmers, the top five issues identified were a lack of collateral and land issues, bank rules and regulations, insufficient capital, poor understanding among loan officers, and bank paperwork and bureaucracy. Only illustrative quotes by participants pertaining to the top five constraints are presented. However, quotes for the rest of the constraints are available on request.

5.5.2.1 Lack of collateral and land issues

Possessing collateral is regarded as one of the main requirements by banks that must be met. It is in this context that the independent farmers complained of the following:

In Namibia most of the instances, a bankable business plan will not always help you. You can say this is the projections of the space, it is a workable thing it will be successful but still they would expect collateral. (P1, 93:93¹⁵)

I don't know who brought this requirements of even when people want to buy farms, you can buy a farm with Agribank you must at least have hundred and fifty cattle that was the requirement then I don't know if they have changed it now and I mean in communal areas most of us with historical reasons come from communal areas, where are you going to keep running fifty heads of cattle in a communal area? It's an impossibility you know so the requirement, the loan requirements are too stiff, they are impractical and they are not workable. (P4, 129:129)

For farmers with Agribank loans, the untitled land provided by the government to small-scale farmers leaves farmers with uncertainties not only about how long they will continue with their businesses but also about whether they can continue to grow and become medium-scale farmers.

The land belongs to the government and not to us and because of this you can find me here today but tomorrow I might not be here. A government official can always come and say I am not producing and that I should go then they can replace me with someone else while they are just seating in government offices. (P12, 92:92)

I was very much impressed to get a loan because it was not easy for me to get it but now after five years I am going to graduate to be a medium farmer and I have to have my own collateral and the money which they are even talking for me to get a loan they are asking lots of money. They are saying at least I must have four hundred thousand on the account and it is not easy to have four hundred thousand because now I am farming I am having family, I am resettling and the people which are working for me

¹⁵ The numbers at the end of the quotes represent the primary document numbers and paragraph numbers in ATLAS.ti. For example P1, 93:93 means that the quote is from primary document 1, starting and ending in paragraph 93.

they are depending on me because they are also having families and whatever, now it is difficult for us farmers like us who are going to graduate to go for the medium farmer because their requirements which they are asking is too much which we cannot afford. (P9, 110:110)

5.5.2.2 Bank rules and regulations

The rules of the bank are found to be discouraging some of the farmers from asking for a loan for agricultural purposes because of the bank's terms and conditions and the repayment terms.

Agribank put up a rule that no second bond is to be granted until the loan is paid back and information is not very clear why I could not get a second bond. That would discourage people to take risks. Also more money is paid back at the end of the day than what was given to me in the first place and the system could not trace why I paid more money. (P2, 92:94)

Production loans repayment term must be prolonged to 4-5 years because 2 years is difficult especially for first time farmers. During the first two years one is still thinking of alternative options for business. (P2, 104:104).

Regulations regarding the need for Agribank to have information about the borrower before any loan is granted cause frustration among borrowers because they feel that the process takes too long and that they do not have any financing options apart from Agribank.

The problem that I experienced was, the long time it took for the bank and the training institution to approve my qualification because nothing happens before the two institutions come to an agreement. The government should inform the bank that we have trained this person and he has passed his training by showing the qualifications, on the other hand the bank says no we don't know the person and we are afraid of losing our money. Agribank usually needs assurance from the training institution whether we will be able to repay their money as they do not know our

capability of repaying the money. The training institution usually tells the bank we have been with the person for certain number of years, his performance is good, he has good knowledge in farming and we believe that he will be able to repay the bank. That's where the problem is most of time. It takes long for the training institution and the bank to come to an agreement on our ability to pay back the money but money can only come from Agribank. (P16, 101:101)

5.5.2.3 Poor understanding among loan officers

In addition to the above, the absence of loan officers in the field has led farmers to believe that the former do not understand the issues that farmers face.

They don't understand our situation as us farmers who are down here because for them they are just in the office. They don't understand the situation which is on the ground in the farm. When you tell them this you know if you are in the office you don't, you are not used even maybe even from their childhood you are not farming that's the problem which we are facing even in our ministry. Most of the workers they don't know what is farming, what are the challenges of farming so they are just there in the office when you complain, they say you complain too much but it is us suffering. (P7, 168:168)

Another participant noted the following:

There should be someone from Agribank who knows what agriculture is because being in agriculture is a tough business there is a lot of challenges and unexpected losses. If Agribank has extension officers closer to the farmers who can come and assess that this farmer made this huge loss, what special treatment or discount should we give him. An unexpected loss is our biggest problem when it comes to our ability to pay back the loan. For instance if you look there, I only have two rows of corns left the rest are destroyed because there is a lack of water but having water here is not up to me but up to the government but I am expected to pay back every cent everything though I have not produced enough. These type of things need to be looked at and

agricultural officers should be brought closer to the people. After each and every month he or she can come and look at how we have worked and assess the situation rather than just sitting in the office waiting for us to pay back the money. (P16, 109:109)

5.5.2.4 Insufficient capital

Apart from poor understanding among loan officers, farmers are of the opinion that the amount of capital provided from Agribank in the form of a loan is too small and unable to cover the cost of inputs and ensure timely production.

Financial constraints will not end because as we speak we are supposed to plant but like I said the amount of money that we receive as a loan is small. We were given the loan four years ago when we started but if a bag of maize cost twenty dollars then it doesn't cost the same amount now. Like this year we exceeded before we could not even reach the due date of the loan. We cannot even buy input because the loan is finished in just one season when it was meant for two seasons. When we tell the government to extend our collateral to Agribank so that Agribank can increase our loan, they don't want. (P11:160:160)

5.5.2.5 Bank paperwork and bureaucracy

The time that it takes for lenders to respond to borrowers is another issue that discourages farmers from asking for financial assistance. It leads to farmers giving up or delaying production. Participants noted the following:

I did not get any response and whenever I went to ask there was no response so I just gave up. (P8, 68:68)

Agribank takes time. If ever you do not have savings of your own you will find yourself just waiting for Agribank because Agribank takes forever for what reason I don't know. Maybe it's because all the farmers in Namibia depend on Agribank or

they are waiting for people to pay back their money. I don't know but Agribank really takes long to respond or give assistance way later than they had promised you at first. Sometimes the good season to plant just pass you by doing nothing because you do not have money just waiting for Agribank although you had repaid your money on time. (P13, 99:99)

It is too tedious. I mean you gotta know how tall your mother was, what size of shoes she is wearing, I hate those things. I think filling in forms is one thing I hate with a passion you know in the end it is as if you have undressed yourself and in the end you are told that no your shape is not good enough to get the loan. I mean that's how I feel about applying for loans though we can't do without but that's my personal feeling. It's an impossibility you know so the requirements, the loan requirements are too stiff, they are impractical and they are not workable. (P4, 98:129)

These issues demonstrate the bureaucratic process that farmers have to go through before gaining access to finance.

5.5.3 Financing constraints – supply side

Supply-side constraints in this paper refer to difficulties experienced by lenders, namely Agribank, in providing finance to borrowers, namely small- and medium-scale farmers.

The issue of lack of collateral makes up the major constraint among the interviews conducted at Agribank (see Figure 5.3). The following section provides illustrative quotes.

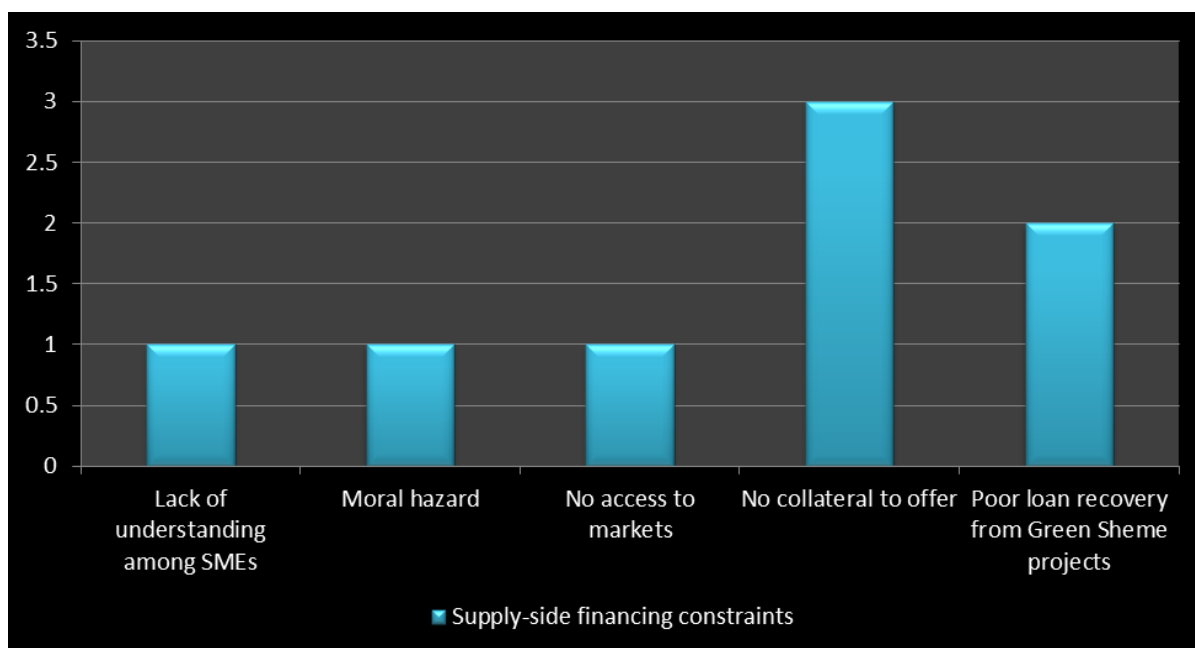


Figure 5.3: Supply-side financing constraints

Source: Authors' data, fieldwork, 2014

5.5.3.1 Lack of collateral

The types of properties that are needed by the bank to serve as collateral or security are not the ones owned by many farmers who need loans. The following quotes illustrate this fact:

As people don't have collateral which is part of the requirements that we need that becomes a bit difficult for us to grant loans. We have got a branch in Katima its very, it's not performing very well in a sense that you only have a handful of teachers, handful of nurses and a handful of policemen that can own a property in town because most of them might be staying in villages which of they can't use that property as collateral so to grant loans becomes a bit difficult in that area but it's very, it's one of the very fertile areas in the country but it needs a boost in terms of agricultural sector. (P17, 82:82)

5.5.3.2 Moral hazard

Lenders are reluctant to provide finance because loans are used for purposes other than agriculture.

We have got the livestock loan product which I feel is being misused, is being misused by the public because the funds are never used for the intended purpose we will try to introduce so many measures in order to ensure that someone actually buys the, there is a moral hazard problem because someone will then, will then for example come for a livestock loan hundred thousand, he will give you all the numbers, these are the animals I am going to buy '...' most cases that we have is that once the money goes into that seller's account, you'll see it back again being transferred into the applicant's account and that guy will go buy a cow or whatever it is and when you go back onto the ground and say which animals did you buy, it is also a bit of a problem because we can't be there to monitor all these problems it is quite expensive to travel throughout the country to see whether the people bought the animals or not. It is a bit of a problem. (P17, 100:100)

5.5.3.3 Poor recovery of loans

In addition to moral hazard, when Agribank decides to grant loans, it runs the risk of loan default among borrowers. This is because the government provides collateral on their behalf and farmers feel that if they default on their loans, they have nothing to lose.

For those who are having security they really try their effort to repay because they know that there is something at stake. If they don't pay, the bank might realise that security and they will lose out but for those who are not providing the own security they are bit reluctant to pay, they know that they don't have anything to lose. (P18, 53:53)

5.5.3.4 Lack of understanding among SMEs

The moral hazard problem discussed earlier, also bring about an issue of lack of understanding among farmers. Most of the farmers who borrow do not have an understanding of what it means to get a loan and therefore end up using it for other purposes.

We assist them in terms of completing the application but I don't think the people understand the implications because he'll come here and say I have a house, I want a loan so his strength of acquiring the loan is based on collateral that he has got or he has been able to provide and not necessary based on what he wants to achieve with the money or the purpose of that, I feel that is a bit of a problem. Everything is good on paper but on the ground it is something else different. (P17, 109:109).

5.5.3.5 Poor access to markets

Finally, access to markets is a requirement for gaining access to finance from Agribank, and because farmers do not have access to markets, it is difficult for Agribank to grant loans.

They don't have access to markets, formalised markets where they can sell their products. (P17, 67:67)

5.6 DISCUSSION AND SUMMARY

The aim of the study was to identify and explain the financing constraints for agricultural SMEs. The results in this paper have confirmed that (as illustrated in figures 5.4 and 5.5) many of the constraints presented in the results section occur as a result of other constraints. Finance is indeed a binding constraint.

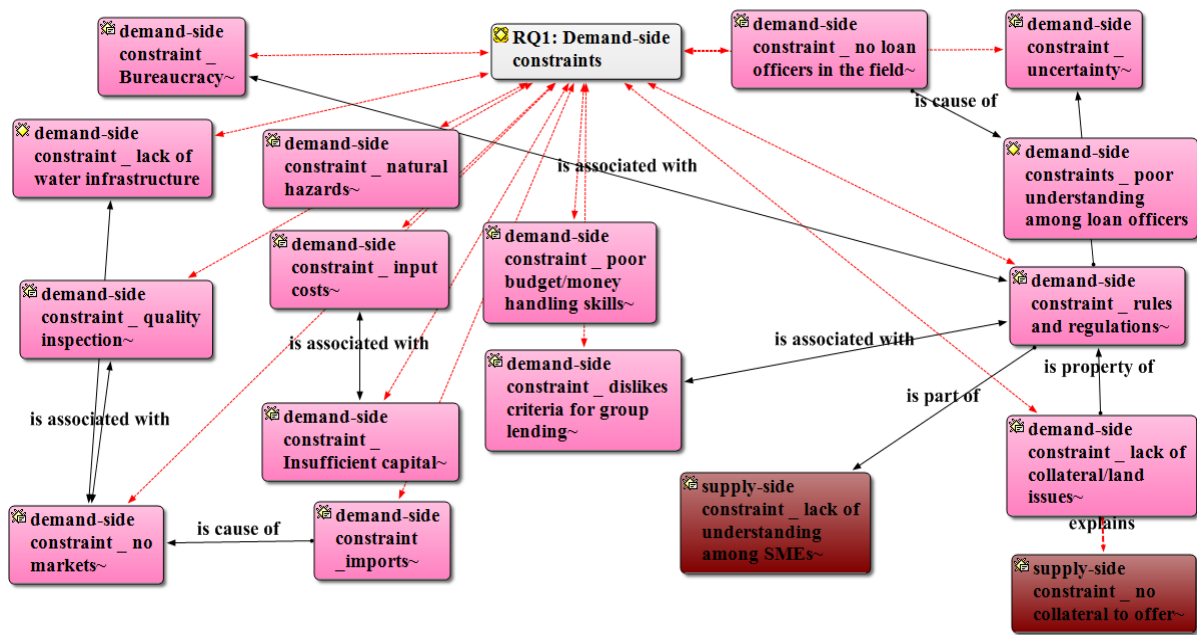


Figure 5.4: Network view of the demand-side constraints

Source: Authors' construct

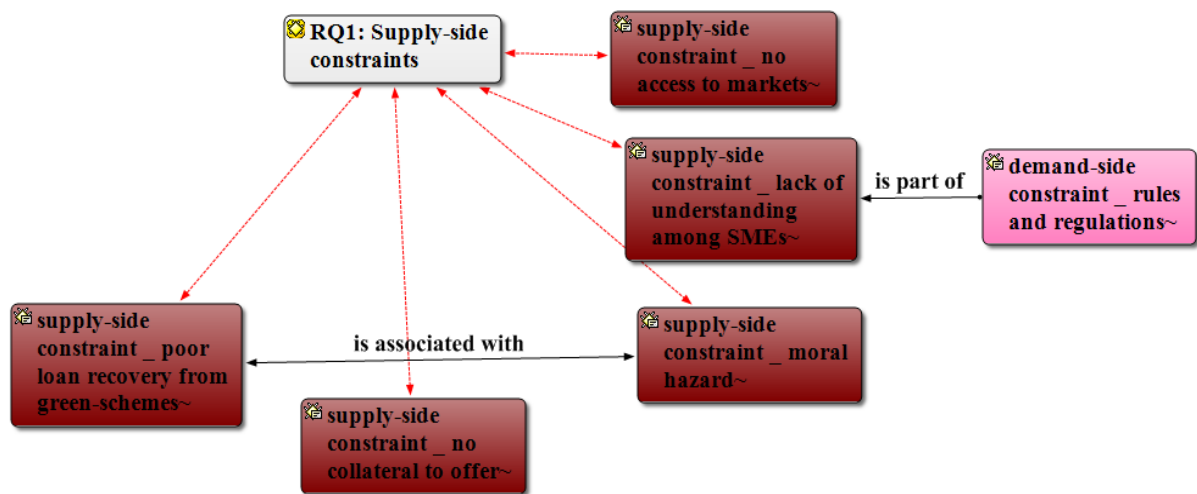


Figure 5.5: Network view of the supply-side constraints

Source: Authors' construct

Finance is a binding constraint because many of the bank's rules and regulations have an adverse effect on farmers' ability to gain access to credit because of lack of collateral, bureaucratic issues, lending criteria used and short timeframe for land lease, thus affecting

production. This essay largely confirms the research discussed in the literature showing market imperfections to include lack of information (Bartlett & Bukvič, 2001), bank paperwork and bureaucracy (Beck, 2013), lack of collateral (Foltz, 2004) and moral hazard problems (Holmstrom, 1979). The deliberately extended quotations from interviews in the results section provide an indication of the realities/constraints of farming. Lack of collateral is identified as the biggest constraint among independent farmers, but this is not surprising because government only provides collateral for small-scale farmers in Green Scheme projects. However, this still creates some uncertainty among the farmers who receive collateral from Agribank because of a lack of security of tenure: “The land belongs to the government and not to us and because of this you can find me here today but tomorrow I might not be here.” What is surprising is that farmers in Green Scheme projects but without Agribank loans own medium-scale farms (mainly from the Hardap Region) compared to small-scale farms owned by Agribank loan holders, which could be an indication of market inefficiencies.

There are several issues that may need special attention on the supply side. These are the fact that there are some independent farmers who have already commenced with their businesses and may not really need to form part of the Green Scheme projects in order to obtain finance from a bank. Such farmers have already shown the capability to produce, and thus other factors could be considered to serve as collateral apart from land. Not all farmers outside Green Scheme projects are the same; therefore, the merit of each case should be considered. Taking into account the fact that medium-scale farmers own bigger plots than small-scale farmers, Carter (1988) has noted that banks discriminate against small-scale farmers when farm size is used as an indicator of individual characteristics. Although credit is a determining factor in profits and investment, market failures such as labour, land and transportation issues overwhelm the effect of credit (Foltz, 2004).

Poor timely response to farmers has been shown to have an undesirable effect on enhancing production, therefore causing low profits. It is in this context that the World Bank argues that “Small and Medium farmers not only need access to finance for investment, they also need it in a timely fashion to take advantage of market and investment opportunities” (World Bank, 2008a:18). Lack of water also prevents farmers from gaining access to markets because, for

example, with no access to water, efficient production becomes a difficult task. This affects one's ability to pay back a loan or discourages one from looking for a loan, thus resulting in accumulation of loan defaults. The argument by Agbozo and Yeboah (2012) that market imperfections result in misallocation of capital, lower productivity and poverty traps has proven to be true in this case, especially when it comes to poverty traps. Safeguarding basic needs such as water is absolutely essential for poverty reduction.

If the aim of the Green Scheme of increasing food production through irrigation production is to remain, there are important aspects such as imports that should be taken into account in order to create markets. Furthermore, the absence of loan officers in the field as demand-side constraints came across as an issue of ignorance, for example, "They don't understand our situation as us farmers who are down here because for them they are just in the office", while that of loan default as a supply-side constraint among Agribank loan holders came across as an issue of attitude, for example, "For those who are not providing their own security they are bit reluctant to pay, they know that they don't have anything to lose". The results of the study are extremely important for the long-term survival of not only the Green Scheme projects but also the prosperity of independent farmers in their businesses, assuming that the constraints identified in this paper are addressed.

Farming is naturally an activity extremely dependent on the climate and vulnerable to the pest challenges peculiar to a particular year, and as a result, farmers face the difficulty of actually developing their farms from small- to medium-scale businesses, as evidenced in this paper. "It is difficult for farmers like us who are going to graduate to go to the medium farmer." In addition, rural credit is complicated by the seasonal nature of agricultural production, weather- and price-related risks, and the dispersed nature of farming, and this makes farming a unique activity. With this view, it is critical for formal financial institutions to increase their understanding of small-scale agriculture (De Klerk *et al.*, 2013). A respondent said, for example, "They don't understand the situation which is on the ground in the farm." Namibia's NDP4 documents (as part of Vision 2030) talk about continued financial and technical support between 2012 and 2017 to those involved in agricultural production activities (NPC, 2013). This can only be achieved if the problems that farmers face are dealt with and if farmers abide by the rules. Of course, financial constraints cannot all be

eliminated at once, but coordination, realistic rules and regulations, collaboration, innovative approaches and acting in an organised manner are a way to start and are advisable to both the demand and the supply side. The findings of this study were based on a small sample and therefore may not be generalisable. Nevertheless, within the context of qualitative studies, the findings point to the need to take the problems experienced by small- and medium-scale businesses, including farmers, in rural Namibia more seriously.

Thus, without going against the idea of promoting smallholder farming, Collier and Dercon (2014) are indeed correct to argue that fixing market imperfections such as timely response, agricultural infrastructure, access to markets and access to land that can be used as collateral, among other constraints identified in this paper, may be the best solution. The paper shows that market imperfections are more systemic than acknowledged in mainstream economic theorising. From a policy perspective, this finding suggests that SMEs require financial state support. Precisely how to do so, especially how to link this support with social perfection, requires more research.

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Chapter 6

UNFULFILLED LOAN DEMAND AMONG AGRICULTURAL SMEs¹⁶

6.1 INTRODUCTION

Although the latest assessment of Namibia's financial system stability by the International Monetary Fund (IMF) concluded that the banking sector was mature, very profitable and well capitalised (Bank of Namibia & Namibia Financial Institutions Supervisory Authority, 2015; IMF, 2007), recent evidence shows that farmers are unaware of many financing options open to them (Schutte, 2015). This lack of information and low productivity in agriculture suggest an opportunity for agricultural development (MAWF, 2008). Among the many factors that could lead to agricultural development, access to finance for agricultural SME farmers is considered important (Norton *et al.*, 2015).

The motivation for this paper follows the argument by Seibel, Giehler and Karduck (2005) who believe that there are two issues affecting the demand and the supply side of financial resources. These are the lack, on the one hand, and the abundance, on the other hand, of financial resources, both resulting paradoxically in a lack of resources for agricultural investments. On the side of the lack of financial resources, there is evidence that the number of donor-supported agricultural investments is in decline and that there is not much to show that government or commercial finance is compensating for the reduction in supply of loanable funds to agricultural production. When it comes to financial resources, there is an abundance of loanable funds in rural institutions because there are more savers than borrowers, which results in excess liquidity. Although the excess liquidity is generated in rural areas, it is siphoned off to urban areas. In this paper, the researcher aims to examine the financing options for agricultural SMEs in Namibian agriculture. The importance of studying the access to finance for agricultural SMEs in Namibia cannot be overemphasised as agriculture contributes to food security, food sovereignty and the national culture in Namibia, so access to finance for agricultural SMEs is crucial to fighting poverty. The findings of this research provide important information and advice that could be immensely valuable to

¹⁶ This paper has been published in the *South African Journal of Economics and Management Sciences*, 19(2).

farmers, bank personnel, investors and planners in agricultural development and decision makers at any level in terms of access to finance

There is evidence that the analysis and documentation of literature in agricultural credit, particularly in Namibia, are lacking, and this paper aims to fill the gap. Tonin *et al.* (1998) conducted a study focusing on financial services for small enterprises in Namibia, but the services excluded agricultural enterprises because of their ‘unique nature’. Other studies elsewhere that focused on small-scale farmers have subjected farmers’ access to finance to rural credit markets, in other words informal moneylenders, using either econometric models or secondary information to analyse the data (see Aleem, 1990; Hoff & Stiglitz, 1990; Obeng, 2008). There has been no such study in Namibia, and there is a need for greater specificity. This paper focuses on both the formal financial institutions (supply side) and agricultural SMEs (demand side), using a naturalistic approach with primary data. Although previous literature already provides us with information on credit access for agricultural SMEs, this information is very slight (Cabannes, 2012) and does not allow us to grasp the real issues to enhance our understanding. This is the reason why this paper used narratives that highlight and illustrate key issues. The types of farmers that are the subject of discussion here are small- and medium-scale farmers rather than subsistence farmers (who barely interact with the market) or large farmers (who are generally well financed). This paper intends to explore the following two objectives:

1. To identify the financing options for agricultural SMEs from both the demand and the supply side.
2. To identify reasons why formal financial institutions may not be involved in agricultural finance in Namibia.

The rest of the paper is structured as follows: The next section looks at the theoretical framework and literature review, Section 6.3 provides stylised facts about Namibia’s banking institutions, the methodology for selecting the sample size is explained in Section 6.4, Section 6.5 presents the results of the study, Section 6.6 discusses the results and implications of the study, and Section 6.7 provides the conclusions.

6.2 THEORETICAL FRAMEWORK AND LITERATURE REVIEW

6.2.1 Theory

Until the early 1980s, agricultural planners in developing countries were concerned with the need to increase food production. As a result, vast amounts of financial resources were poured into agricultural development banks until the donors withdrew them in the early 1990s because the banks' performance was measured in terms of loan disbursements rather than the actual number of small-scale farmer borrowers. As a result, the development banks were tempted to grant loans to well-established larger farmers rather than small farmers and therefore missed their target group (Klein, Meyer, Hannig, Burnett & Fiebig, 1999). The absence of or withdrawal by development banks from lending to small farmers has also not allowed the private supply of funds to rural areas, as the private sector's service tends to target the wealthier sectors. In other words, neither the countries whose donors withdrew their support from development banks nor those that changed the banks' approach to private-sector financing managed to achieve a widespread service to agricultural clients. Apart from the private-sector microfinance institutions that were set up after the unsuccessful operation for agricultural development, banks have not managed to close the agricultural finance gap because they have focused more on financing small-scale trading activities in urban areas, paying little attention to the rural population involved in agricultural production (Seibel *et al.*, 2005). The Namibia Financial Institutions Supervisory Authority has revealed that microlenders serve only the formally employed sector; in other words, lending by these institutions is salary backed.¹⁷ Trivelli and Venero (2007) posit that the reason for the limited response from the private sector lies in the failure of the rural financial markets.

Given this, the theoretical framework guiding this study was the failure of the market to allocate resources efficiently or fairly. Jensen (2000) argues that market failures in agriculture exist, which could have been caused by monopoly power on the part of agricultural lenders, possible information asymmetries (generally referred to as insufficient information held by the lender regarding the borrower) and incorrect perceptions of agricultural risk from the

¹⁷ This information is taken from an unpublished briefing paper presented by the Namibia Financial Institutions Supervisory Authority in 2013.

standpoint of agricultural lenders. The existence of market failures in agricultural markets results in inefficient markets and less credit given to agricultural borrowers.

Trivelli and Venero (2007), however, maintain that despite the failure of the rural financial markets, agricultural SMEs could (and should) be served by development banks, as this could result in significant gains for the economy by, for example, reducing poverty. Given this theory, this study explored whether formal financial institutions in Namibia were involved in financing agriculture and, if not, for what reasons. A review of the financing options that could be used or are being used to finance agriculture is presented in the next section, followed by a review of the reasons why financial institutions do not provide finance for agriculture.

6.2.2 Literature review

The literature review section is divided into three subsections, namely financing options, lending techniques and reasons for not financing agriculture. This is followed by stylised facts about Namibia's financial sector.

6.2.2.1 Financing options

The major sources of finance can be classified as debt and equity. Debt is referred to as outside finance (formal and informal) while equity is the owner's investment in the business in the form of capital (Akingunola, 2011). Trzeciak-Duval (2003) suggests that one of the options for developing financial infrastructure and bank restructuring is for commercial banks to establish specialised rural financing units in order to provide debt, although this may create tension between the pure profit maximisation objective and the need to service agriculture and the rural areas. However, complementary instruments such as guarantee schemes could be introduced. This means that an increase in rural financing institutions is one way of promoting awareness of the formal sources of help available for farmers. Trivelli and Venero (2007) maintain that in Latin America, for example, financial entities have developed innovative technologies for gathering local information and established credit bureaux to store customers' credit histories and share them among financial entities, benefiting both the financial market and the customers.

In Bangladesh, as another example, out of five development finance institutions, only two were active lenders to agriculture. The government in Bangladesh provides refinance facilities to financial institutions interested in financing agriculture. These refinance facilities are provided for three types of loan products: short-term loans to cultivate crops, medium-term loans for livestock and poultry production and long-term loans for agricultural equipment. Although these banks in Bangladesh eventually became insolvent because of growing capital deficits, reformation took place later (World Bank, 2008a).

Coates and Hofmeister (2012:85) suggest that

innovative approaches to increasing financial services to more isolated rural areas involve branchless banking but such approaches should not substitute a branch network because nothing seems to capture the full financial services of a community like a “bricks and mortar” branch.

6.2.2.2 Lending techniques

Closely linked with the discussion on financing options/mechanisms for agriculture is the discussion on lending techniques. Huppi and Feder (1990) note two lending techniques, the main forms being group and individual lending. Huppi and Feder (1990) further note that there are notable successes for group lending for financial institutions, for example reliance on members' deposits rather than on outside sources for funding. Kodongo and Kendi (2013) support Huppi and Feder (1990) by arguing that group lending helps individuals to be more financially stable and reduces the risk of default because of pressure from other members of the group to pay on time (see also Besley & Coate, 1995).

In contrast, Lehner (2009) suggests that group lending may be regarded as ineffective when the costs of monitoring for the group members are high because of loose social ties. This might have a negative effect on repayment, as the incentive of future credit is no longer present if one member fails to pay. Lehner (2009) therefore concludes that individual lending may be preferred when the requested amount is small, refinancing costs are low and competition is intense. Presenting a basic model and comparing between the optimal individual lending contract and the optimal simple group lending, Bhole and Ogden (2010)

disagree with Lehner (2009). They argue that group lending performs better than individual lending, even in the absence of social sanctions.

Kodongo and Kendi (2013) conclude that the choice between individual and group lending should be informed by each financial institution's philosophical orientation because high default from either individuals or groups is attributed to the failure by loan officers to properly screen, encourage and train clients on financial discipline. The researcher's view is that lending institutions' expertise on agricultural financing is important for the implementation of either individual or group lending.

Although financing options are suggested in successful countries, such as Bangladesh and Latin America, in countries such as Nigeria, banks are ready to give a sizeable proportion of credit to SMEs only if they are forced to do so. This was observed when the mandatory commercial banks' credit allocations of 20% of the total credit to small-scale enterprises declined progressively after these had been abolished by the government through the Central Bank of Nigeria (Olutunla & Obamuyi, 2008).

6.2.2.3 Why financial institutions do not provide finance to agriculture

Coates and Hofmeister (2012) argue that in most parts of the world, agriculture is exposed to high systemic and market risks, which, as a result, has created the problem of a lack of access to finance for agricultural SMEs and has hampered their performance and productivity. Apart from being regarded as risky, other reasons cited as to why financial institutions are reluctant to provide finance to agricultural SMEs are the following:

- Agricultural SMEs lack skills (Namibia Training Authority, 2013).
- The existence of information asymmetry arising from inadequate financial statements, making it difficult to assess their effectiveness (Coates & Hofmeister, 2012).
- The high administrative or transactional costs of lending and investing small amounts (Abereijo & Fayomi, 2005, cited in Akingunola, 2011).

Jayasinghe (2009) conducted a survey in Gampaha (Sri Lanka) on 22 financial institutions, and only 10 of these were involved in agricultural ventures. Among the many perceived or

practical bottlenecks in financing agriculture are concerns about farmers' behaviour when it comes to repayments and the perception that urban agriculture is small and unprofitable or does not match the current strategic objectives of the institution, to name but two. The World Bank (2008a) points out that the challenges faced by banks in serving small- and medium-scale farmers are training loan officers and appraising agricultural activities, developing products with flexible repayment schedules that fit agricultural cycles, coping with weather risks, and developing delivery and monitoring mechanisms that keep costs low while serving sparsely populated areas. Further, Seibel *et al.* (2005) note that almost no use is made of commercial banks by small farmers in tropical Africa and elsewhere because there are few branches of private banks in rural areas and banks are reluctant to lend to small farmers without title to land (see also Mollett, 1984). Jessop *et al.* (2012) reason that the heavily subsidised interest rates usually place a low ceiling on savings deposits so that the system discourages commercial banks from lending to farmers. For this reason, most banks have neither the rural branch networks nor the agricultural lending expertise that would enable them to serve small-scale farmer clients.

Coates and Hofmeister (2012) extend their discussion to venture capital funds, arguing that when it comes to venture capitals and private equities, the attention received by SMEs, particularly in the agricultural sector as opposed to other sectors in Africa, is not because of the paucity of information in the agricultural sector but because the potential investors' understanding is limited. One should also not forget the restrictions that the investors place on venture capital funds (see also Samsel, Hambley & Marquardt, 1991).

The agricultural sector is undeniably unique and faces greater risks than other sectors do when it comes to financing, but every business, irrespective of the sector in which it falls, faces risks to a certain extent. The question to ask is, How are those risks mitigated in other sectors? How could they be adjusted not only to serve an agricultural entrepreneur but also to satisfy the financier? Hartig, Jainzik and Pfeiffer (2014) suggest that structured finance may be the way to go in agriculture. Structured finance refers to the advancement of funds to enterprises to finance inputs, production and the accompanying support operations by using certain types of security that are not normally accepted by banks or investors and that are more dependent on the structure and performance of the transaction rather than on the

characteristics of the borrower. Therefore, in agricultural finance, there is a tendency to focus on securities (i.e. collateral) in order to reduce credit risk rather than focusing on other aspects such as risk transfer or liquidity. Structured finance can, for example, take the form of, inter alia, contract farming, agricultural portfolio guarantees, warehouse receipt finance and forward contracts.

6.3 STYLISTED FACTS ABOUT NAMIBIA'S FINANCIAL SECTOR

6.3.1 Development banks

Development banks are defined as mainly government-owned institutions (Seibel *et al.*, 2005). In Namibia, there are two development banks: the DBN, which started in 2004, and Agribank, which started as far back as 1907. The DBN was set up with the aim of contributing to national economic development by financing various types of economic enterprises, projects and activities. It provides finance for both the public and the private sectors (including emerging entrepreneurs and SMEs) for start-ups and expansions, equity deals, bridging finance, enterprise development finance, trade finance, SME finance, public-private partnerships, public sector infrastructure, local authorities and bulk finance to microfinance providers (mainly term-lending credit only to micro-lenders) (DBN, 2014). Agribank, in contrast, provides loans for agriculture- and fisheries-related economic activities, including small-scale farmers. In order to boost food security, the government of the Republic of Namibia diverts certain funds to agricultural activities according to the principle of contract farming set out in its Green Scheme Policy of 2003. The MAWF has appointed Agribank to make production and capital loan facilities available to farmers in the Green Scheme projects.

The IMF (2007) has revealed that only 9.5% of lending is allocated to agriculture, forestry and fishing, relative to the total credit from commercial and development banks in Namibia (IMF, 2007). Nevertheless, Agribank continues to be the major credit provider for agriculture. Agribank was established in order to expand the scope of business to capitalise on opportunities in the market and transform the institution into a more versatile one, responsive to all the stakeholders in order to meet the demands of the ever-changing business

environment (Agribank, 2014). Agribank continues to receive the greatest portion of financial support from government, with N\$321 million expected for the financial year 2015/16 (Menges, 2015). The number of loans to agriculture from Agribank has increased over the years from N\$1 063 282 million in 2003 to N\$1 930 667 million in 2015 (Abiatar, 2015). Despite this increase, lending to farmers remains a challenge because of the mortgage collateral requirements that are quite restrictive, especially to small-scale farmers in communal rural areas. This is exacerbated by the lack of secured land rights to enable access to credit by the majority of small-scale farmers in rural areas to expand and develop agricultural land to its full potential (see Ndjoze, 2012).

6.3.2 Commercial banks

Commercial banks are defined as banks falling under the banking law and not under a special act, such as the Development Banks Act or the Agricultural Reform Act (Seibel *et al.*, 2005). In Namibia, the banking industry comprises six commercial banks, four of which are traditional commercial banking institutions (First National Bank of Namibia [FNB], Standard Bank of Namibia, Nedbank of Namibia and Bank Windhoek) while two are specialised banking institutions (FIDES Bank, which is a microfinance deposit-taking bank, and the SME Bank). Bank Windhoek is the only locally owned bank while the other commercial banks are subsidiaries of foreign institutions. According to Kaakunga, Zaaruka, Motinga and Steytler (2004), the distribution of commercial banks in Namibia is heavily skewed in favour of urban centres, with only a few branches located in rural areas. Although lending to agriculture from commercial banks has been increasing over the last 15 years in Namibia, it has moved at a very slow pace from 2001 to 2011 and dramatically increased from 2011 to 2014. From 2001 to 2015(Q1) a total sum of N\$ 979 666.82, 552 747.39 and 78 754.33 was lent to resident, commercial service and agricultural sector, respectively. These were the top 3 sectors that received the highest amounts (Abiatar, 2015) (see Table 6.1 below). It is unclear whether these loans went to large, medium-scale or small-scale farmers. Other research has shown that although commercial banks do finance agriculture, this type of finance usually goes to agricultural processing units, agricultural trading and related businesses while primary farming is shunned (Jessop *et al.*, 2012).

Table 6.1: Commercial banks' lending to various sectors from 2001 to the first quarter (Q1) of 2015¹⁸

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 (Q1)
Sectors															
Agriculture	4.7	4.2	4.1	3.4	3.8	3.6	3.4	3.8	4.3	4.6	4.4	4.8	5.0	5.3	5.2
Fishing	4.4	4.8	5.2	4.0	4.8	3.2	2.2	2.5	2.3	2.6	2.2	2.1	1.5	1.4	1.3
Mining & quarrying	0.8	0.9	1.6	1.9	2.1	1.2	1.5	1.7	2.3	1.6	1.4	1.9	2.4	2.1	2.0
Manufacturing	5.7	5.2	4.0	2.2	2.1	2.0	1.8	2.2	2.1	1.7	1.9	1.8	1.9	1.7	2.0
Building and Construction	4.3	5.2	5.7	7.5	2.2	1.5	1.2	1.5	1.4	1.5	1.6	1.3	1.6	1.7	2.1
Commercial & services	30.0	30.0	26.7	26.4	25.9	36.1	30.8	29.9	30.2	31.7	31.9	33.3	32.4	32.5	33.7
Resident sectors and others	50.1	49.7	52.8	54.5	59.2	52.4	59.0	58.4	57.3	56.3	56.7	54.8	55.1	55.3	53.6
Total Lending	37912	40848.1	56465.02	69549	78937.2	85326.5	108537	120751	132809	142706	162332	187802.18	216368	252033	68353

Source: Abiatar (2015)

¹⁸ Figures are expressed as percentage (%) of total lending

Despite the existence of and lending by commercial banks, the BoN (2013) reports that commercial banks in Namibia have been operating inefficiently because, according to the bank cost efficiency ratio, they are above 50%, which is not desirable. This inefficiency could be the result of the domination of the industry by the four main banks and thus a lack of competition. Ikhide (2000) maintains that attracting new entries to the industry is necessary to provide a competitive stimulus and spur innovation in products and practices, including those suitable for the financially excluded.

According to the 12th Annual Symposium on SME Development in Namibia of the BoN held in 2010, in order to improve access to financial services for the informal sector and bring the poor into the formal banking system, a paradigm shift has to occur. The BoN argues that mobile wallets have the potential to provide an urgently needed breakthrough. Banks need to return to basics and focus on making money through financial intermediation rather than through transaction fees (BoN, 2010).

6.3.3 Venture capitalists and private equities

Venture capital is explained as an investment made on the basis of the development of a business, which is mostly targeted at start-up, Green Scheme and early-stage investments, while private equity focuses on businesses that are already established or going through a stage of changing shareholders. Although there are countries in Africa such as Kenya, Nigeria and South Africa that are large recipients of venture capital funds and private equity funds, Namibia is still in its infancy, and investment in businesses comes mainly from local capital. There are 14 venture capitalists/private equities, according to the Business Financial Solutions report of 2013: 1) Stimulus Investments Limited; 2) Spitz Health Care Investment; 3) First Capital Estate Finance Fund; 4) Preferred Investment Property Fund Trust; 5) Desert Stone Fund; 6) OMIGNAM Tunga Real Estate Fund; 7) OMIGNAM Expanded Infrastructure Fund; 8) Tukuneni Capital; 9) Frontier Property Trust; 10) SIM Namibia Real Estate; 11) SME Compete Fund; 12) Namibia Procurement Fund; 13) VPB Namibia Growth Fund; and 14) Koigstein Capital Property Investment Fund.

Established in 2004, Stimulus Investments was the first private equity fund to be established in the country, investing mainly in well-established companies. After 2004, 11 more venture

capital funds, private equity funds and angel funds were created between 2010 and 2013, which provide different forms of financing, such as trade credit. Although many venture capital funds invest in start-ups, they focus on sectors other than agriculture (see Business Financial Solutions, 2013).

For the purpose of this research, the concept of financing options included both monetary and nonmonetary options.

6.4 METHODOLOGY

The methodology was designed to elicit the financial institutions that were financing agriculture in Namibia, the financing options that farmers were aware of and the reasons for not financing agriculture. Just like the paper presented in Chapter 5, the degree to which questions were structured depended on whether an institution financed agriculture or not and whether farmers were aware of other financing options apart from Agribank. It was the participants' knowledge and experience that decided which topics were important in the various interviews (see the interview guides presented in appendixes A and B). Additional data collection methods were reviews of documents from different financial organisations, including international financial reports on the Namibian financial system, as well as Green Scheme project documents that were analysed for this study.

6.4.1 Sample and site selection

Depending on the availability of farmers and a convenient time for the researcher and the participants in the various regions, six interviews were conducted with farmers from the Ndonga Linena Irrigation Scheme, six with farmers from the Hardap Irrigation Scheme and six with farmers from the Etunda Irrigation Scheme. In addition, three agricultural SME farm owners in the Omusati and Kavango East regions who were operating independently outside the Green Scheme projects were interviewed. These were Second Chance Garden in the Omusati Region and Pozere and Gamade gardens in the Kavango East Region. Twenty-one farmers were thus interviewed on the demand side.

On the supply side, more than 50% of the banks (all situated in the Khomas Region) participated in the study. The criterion used to select the financial institutions was that it had

to be a formal institution, that is, a commercial bank, a development bank or a venture capital/private equity fund. The researcher interviewed personnel at three of the five commercial banks (not including FIDES bank) (personnel at Nedbank and Standard Bank were too busy to schedule time for an interview), both development banks (Agribank and DBN) and four selected venture capital funds. In order to select venture capital funds, the only brief study in the country on active local providers of venture capital, private equity and angel funding in Namibia (2013) was used (Business Financial Solutions, 2013). Only venture capital funds, private equity funds and angel funds that targeted businesses in ‘any sector’ were interviewed to find out whether agricultural SMEs were part of the ‘any sector’ classification or not and the reasons for this. These institutions were VPB Namibia Growth Fund, Desert Stone Fund, Namibia Procurement Fund and Stimulus Investments. Given the above, the sample on the supply side resulted in nine formal financial institutions.

All the interviews were conducted after ethics approval by the University of Stellenbosch Business School ethics committee and permission by the financial institutions had been granted.

6.4.2 Justification of the sample size

The objective of the study was not to maximise numbers but to become ‘saturated’ with information on the topic (see Padgett, 1998). The aim was to capture depth and richness rather than representativeness (see Padgett, 1998). The interviews were complemented with secondary information, and this ensured the adequacy of the data. Because of the small population of farmers operating with valid contracts in the various Green Scheme projects on the demand side, a small sample size also resulted on the demand side. Koranteng (2010) conducted a similar study in South Africa but interviewed only nine farmers.

6.5 RESULTS

Of the nine institutions on the supply side, there were only three that financed agricultural SMEs, which was about 33% of the total. These were Agribank, Bank Windhoek and FNB. Agribank is the main institution involved in financing agriculture in the form of loans subsidised by the government, Bank Windhoek finances articles such as tractors for farming

and FNB performs intermediary on-lending. The rest of the institutions (six out of nine) that formed part of the analysis indicated that they provided finance but not to agricultural SMEs. Table 6.2 below provides available data on the number of loans approved and disbursed between 2012 and 2014 by Agribank. Although the number of loan amounts approved is high, loan amounts disbursed are low. This is attributed to unfulfilled collateral requirements and the customer's inability to substantiate his or her repayment ability. Similarly, the loan amounts disbursed kept decreasing because of the drought devastating the country between 2012 and 2014. Illustrative quotes regarding specific financing options for agriculture, financing options known to farmers apart from Agribank and reasons for not financing agriculture from institutions that are not financing farmers are presented in the following section.

Table 6.2: Data on the financing of agricultural SMEs by Agribank¹⁹

Loan amounts (N\$) approved	Loan amounts (N\$) disbursed	Collateral required
2012 = 271 396 519.62	2012 = 195 731 015	Bonds over farmland, developed/underdeveloped municipal plots
2013 = 255 720 901.62	2013 = 245 189 468	
2014 = 303 544 095.67	2014 = 244 935 918	
		Cession of fixed deposits
		Cession of surrendering value of policies
		Listed investments and unit trust investments
		Suretyships

Source: Agribank (2012; 2013; 2014)

¹⁹ The data available are inclusive of small-, medium- and large-scale farmers.

“The general purpose of financing by Agribank is to provide reasonably priced loan financing to our clients, particular the rural farming community which would stimulate the growth in the agricultural sector” (Agribank, 2011:3).

6.5.1 Specific type of funding provided

Agribank provides various forms of collateralised and subsidised loans (by government) for production to farmers in Green Scheme projects. Farmers who are not in Green Scheme projects also receive assistance in the form of loans, although these are not subsidised by government. A manager for lending noted:

Those who have been backed by the government they are being treated differently because we will liaise with the government to provide them the collateral, the ones farming specifically in the green-scheme farm but the others they provide their own collateral. (P18, 26:46)(sic)

These loans are disbursed by way of individual lending as opposed to group lending. Although Agribank had tried group lending in previous years, it failed because of poor execution.

We give to individuals; we use to do group loans before. Group loans were not successful because the whole idea then its five, more than ten years ago was that at least the, we wanted to do this group lending so that at least the people in the group give each other pressure in order to service the loans but that was not successful because what happened is that people just met in front of the bank door, form a group in front of the bank door, got the money, they don't even know each other then they shared the money and then everybody disappeared when you go back and to say okay group leader where is that money he will say but I don't even know that guy I just met him in front of the bank door so our experience in terms of that was not quite good, we lost a lot of money and it was one of the initiative that we were trying to do in the communal but it never I think the implementation was a bit wrong in terms of the execution. (P17, 57:60)

As Lehner (2009) points out, group lending may be ineffective when the costs of monitoring for group members are high because of loose social ties, which might have a negative effect on repayment, as the incentive of future credit would no longer count if one member failed to pay.

Apart from Agribank, FNB performs as intermediary for lending to farmers but only to commercial farmers because communal farmers do not own any land to serve as collateral. This supports the opinion of Trzeciak-Duval (2003) that the private sector's service tends to target the wealthier sectors.

There is only one scheme that we have, there is a scheme in Okakarara what we call is the Okamakapati. That's Ongombe farmers association what we do is we lend money to the farmer's association and they lend money to the different farmers in their community and they manage the farmer's association or they actually manage that funds on behalf of the bank. We do financing on the basis of security as you know in the communal area there is no, the land doesn't own to someone specific, the security is a problem. (P21, 28:52)

Bank Windhoek does not provide monetary finance, but it finances the specialised equipment that farmers may need for production but are unable to pay for out of their own savings. This requires a higher deposit, and it has to be salary backed.

What we finance for agricultural activities, we finance them with the tractor for example things like equipment. (P19, 32:32)

The specialised equipment we ask a higher deposit that can go up to 30 percent. By specialised we mean an equipment that can just be used in that specific industry but not other industries, not like a computer where everybody can use it but just an irrigation system is basically just meant for agriculture so we ask for a higher deposit on that. Reason being if that client did not fulfil the agreement, obviously when we

going to repossess and sell not everybody would want to repossess this article. It's likely not to be sold. (P19, 81:81)

6.5.2 Financing options known to the farmers

In order to draw a comparison between the existing formal agricultural financing mechanisms and what is actually known to farmers, the latter were asked what financing options they were aware of, apart from Agribank, in order to establish the credit possibilities known to the demand side. Many farmers from all three regions interviewed (see Figure 6.1 below) indicated that they were aware only of Agribank.

I looked for assistance from Agribank because there is nowhere else one can get money doing such type of work and in such a place. (P16, 105:105)

Another participant noted:

When it comes banks I only know of Agribank. (P13, 95:95)

Medium-scale farmers (all from the Hardap Green Scheme Irrigation Project) pointed to commercial banks (although they complained about the interest rates) and village councils while others, especially independent farmers, felt that there was a lack of information in the country on the different financing options available.

I am not aware of any but those are the type of things we would like to get information on. There is lack of access to information because you hear of people who have been given kind of assistance apart from loans but I don't know how that happens. (P16, 98:98)

The lack of information is consistent with the results found by Abor and Biekpe (2006). They report that although there are many funded schemes available to SMEs, they are mostly underutilised because firms are sometimes not aware of these nonbank financing options and therefore rely heavily on the inadequate and collateral-driven bank finance. Similarly, De

Klerk *et al.* (2013) maintain that familiarity with formal financial products is limited, as is farmers' awareness of the formal sources of help.

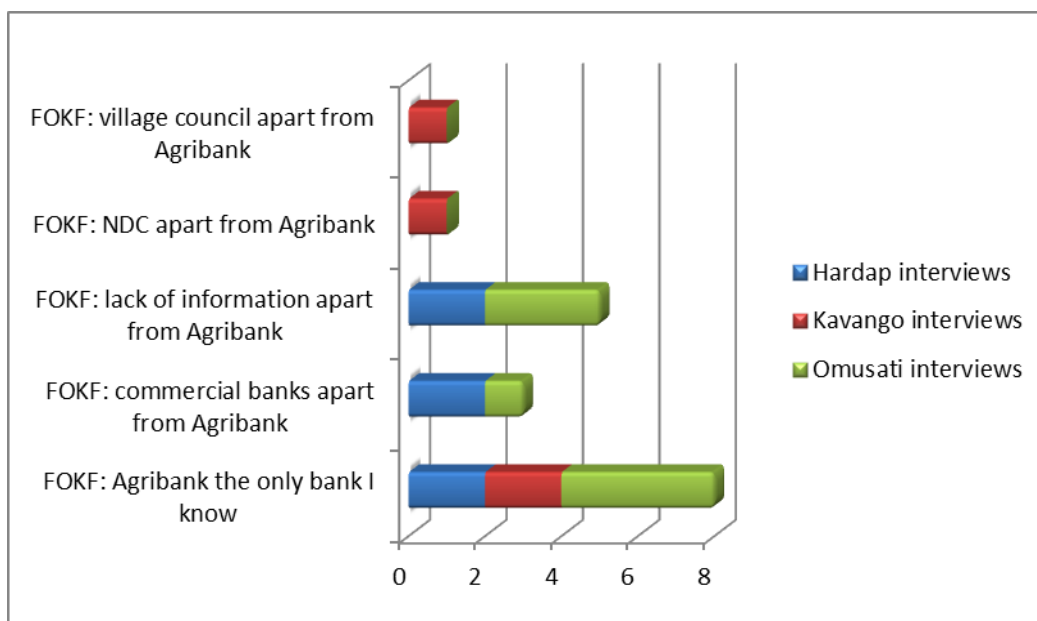


Figure 6.1: Financing options known to farmers in various regions²⁰

Source: Author's data, fieldwork, 2014

6.5.3 Reasons for not financing agriculture

Formal lenders in Namibia cite the lack of expertise and high risk in financing agriculture as the main reasons for not financing agriculture (see Figure 6.2 below).

²⁰ FOKF in Figure 6.1 stands for Financing Options Known by Farmers.

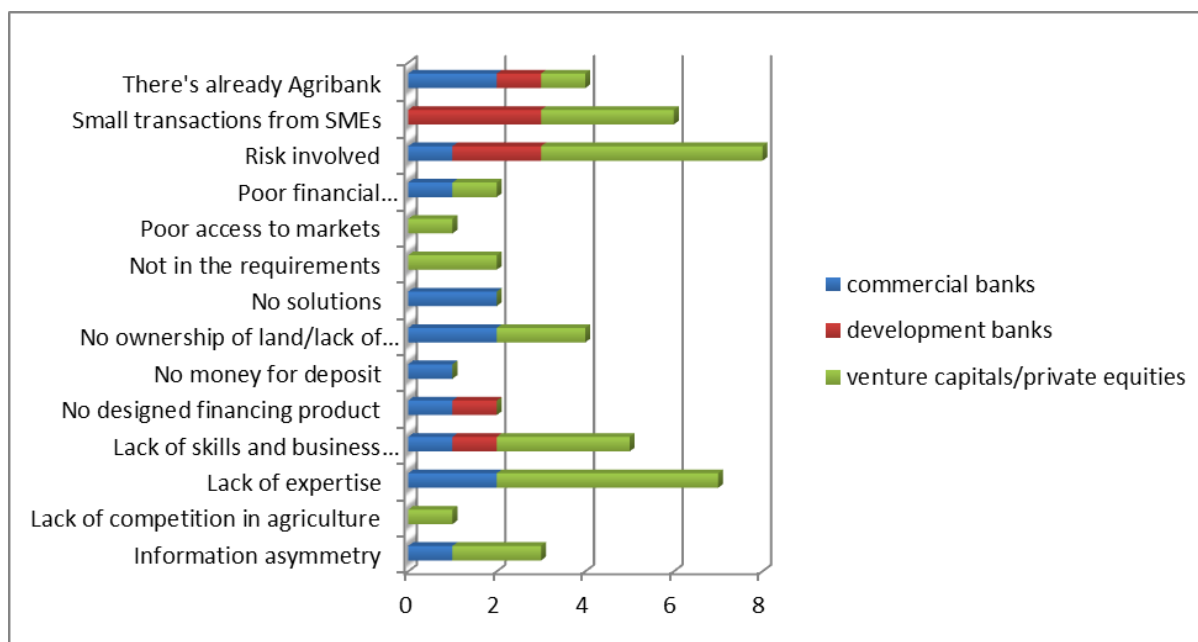


Figure 6.2: Reasons for not financing agriculture from financial institutions

Source: Author's data, fieldwork, 2014

Coates and Hofmeister (2012) point out that the understanding by potential investors is limited when it comes to businesses in the agricultural sector. This was confirmed by this study because all the venture capital funds acknowledged the lack of expertise as one of the main reasons for not taking the route of financing agriculture.

The reason for not financing the agricultural industry one is just the nature of the industry itself being agriculture you need to have specialist people that have specialised in that industry and who will be able to analyse the applications in that industry you know in the right way. (P19, 28:28).

Another venture capitalist respondent noted:

We would have loved to go into farming for instance or agriculture but we just said no, look here, we know nothing about agriculture. (P29, 27:27).

It is important to note that, although Bank Windhoek may assist in purchasing agricultural production machinery such as tractors and machines, these are treated as normal transactions only for people who can provide proof of income in order for the bank to determine repayment possibility.

Furthermore, the risk involved in financing agriculture also scored highest among the reasons found for not financing agricultural SMEs. This is consistent with results found by the World Bank (2008b) that because of reasons ranging from the weather to the low-returns in agriculture, SMEs, particularly farmers in primary production, are perceived to be high-risk businesses as opposed to farmers adding value to an already-produced product.

Being able to tell us what the risk involved is, you know the potential of that business and etcetera et cetera. For example, if the person would want to do cropping, you know it is one of the things that is viewed to be higher risk because the reason is you don't really know would this person be able to harvest or their project to harvest, What in case probably some natural disasters you know, diseases that you know can arise in the middle of you know, the process and all those things. (P19, 32:32)

Risks prevalent in the agricultural sector due to dependencies on nature, potentially capital intensive nature of agriculture with limited return capacity, unless the intensity is increased on the back of possible technological advances that come at great cost as well. (P24, 47:47)

The DBN argues that Agribank is already there, so it does not perceive the need to finance agriculture.

Agribank by law and by its pure definition is supposed to look at the agri-side of things were we look at the more commercial side of things so that distinction is there and that's why most of that products if not all will be routed through Agribank. (P20:47:47)

Nigeria has found that the high administrative or transaction costs of lending and investment of small amounts discourage financial institutions from investing in agriculture (Abereijo & Fayomi, 2005, as cited in Akingunola, 2011). This is also the case in Namibia, which is a major concern coming specifically from development banks and venture capital funds.

6.6 DISCUSSION AND IMPLICATIONS

The aim of the study was to investigate the financing options for agricultural SMEs from both the demand and the supply-perspectives and the reasons for not financing agriculture. The findings show that on the supply side, although financial institutions exist, very few (three out of nine) are interested in financing or providing support for agriculture to small- and medium-scale farmers, which by implication means that there is a lack of financial resources for agricultural production in the country. This implies that financial penetration in the country is low when it comes to agricultural financing. This is disturbing. Trzeciak-Duval (2003) cautions that government should ensure competition in financial markets in order to drive innovation and efficiency and minimise the risk of monopolistic practices.

Although the agricultural sector is rated as the third highest sector to which commercial banks in Namibia lend, as shown in Table 6.1, it could be that this lending is mostly to large and well-established farmers with collateral. This assumption is based on the fact that of the commercial banks interviewed in this study, FNB finances only SMEs with title to land and in commercial areas.

We do financing on the basis of security as you know in the communal area there is no, the land doesn't own to someone specific, the security is a problem (P21,28:52).

Bank Windhoek finances farmers' equipment, but this has to be salary backed. The reality, however, is that the majority of agricultural SMEs, particularly those in Green Scheme projects, are not farming in commercial areas and do not have title to land, indicating a challenge to access to finance for farmers without collateral.

All the venture capitals interviewed during this study acknowledged that they had no expertise for financing SMEs in agriculture:

The reason for not financing the agricultural industry one is just the nature of the industry itself being agriculture you need to have specialist people (P19, 28:28).

This finding resonates with the argument by Seibel *et al.* (2005), who maintain that the belief held by bank chief executive officers and donors with insurmountable problems of agricultural finance has turned into a *self-fulfilling prophecy*, either by categorically excluding this type of finance or, when giving it a try, failing because loan officers are not experienced and not convinced. Narteh (2013) suggests that there is a need for banks to monitor and understand the business needs of SMEs and provide adequate finance to ensure effective business development. It would also be prudent for banks to segment SMEs according to specific sectors so that the bank staff could specialise and provide the necessary services as required.

Further, the negative bias of financial institutions in perceiving agricultural SMEs to be high risk presents as fear on the part of financial institutions to become innovative and manage their risks while the failure of group lending by Agribank appears to be because of poor planning. The perception of risk might be linked to fears of crop failure because agriculture is largely rain dependent and drought results in uncertainty for the financial institutions as to whether these businesses will be able to harvest. However, risks can always be mitigated. For example, in Malaysia, the establishment of the SME Bank, with added corporate advisory functions and consultation given by coach clients, was an attempt by Malaysia to correct the risk profile of the SME borrowers (Ramlee & Berma, 2013). There are also promising signs in Kenya and Ghana of greater agricultural finance by increasing capacity building for staff in banking institutions. Given the right circumstances, the model used in these countries could work in other African countries, including Namibia (Coates & Hofmeister, 2012). According to Hartig *et al.* (2014:172), there has been no empirical evidence in the literature to prove that lending to agriculture is indeed more risky than lending to other sectors. They note that

It is often misleading to state that banks assess risk of farming businesses and lending to agriculture as high risk. Unfortunately many banks and other financial institutions have no clear understanding about farm economics and market for agricultural produce and they are lacking appropriate approaches to analyzing the related risks so there is no base for a professional credit risk assessment by the banks. Thus, the reference to high risks in agriculture by banks is often only uniformed perception based on prejudices (Hartig *et al* 2014: 172)

According to Cabannes (2012), agricultural planners often fail because farmers are not kept well informed, which also explains the reluctance on the part of SMEs to ask for loans. In this paper, insufficient information about the few credit possibilities available for farmers, especially those employed outside the Green Scheme projects, demonstrates poor marketing from financial institutions. This goes to show that information is relevant not only to lenders to make informed decisions as to whom they should lend but also to borrowers to seek financial assistance. “Firms stay with the same bank not simply because the bank treats them well but because that bank has information available” (Sharpe, 1990:1070).

It is safe to say that information asymmetry, lack of expertise, small transaction from SMEs and the risks involved play a major role in fulfilling the loan demand.

6.7 CONCLUSIONS

The findings of this study confirm and expand on the findings of previous studies and can be summarised as follows: The financing of agriculture is a major bottleneck in expanding agricultural production. Financial resources are lacking (Seibel *et al.*, 2005) for agricultural SME farmers, particularly those in communal areas. One possible reason why farmers are unaware of financing options could be that there are so few financial institutions in the country and information on them is not available. Based on the work of other authors cited in this paper, the researcher asserts that new financing mechanisms could be achieved by the various types of financial institutions by following the example of more successful countries.

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Chapter 7

IDENTIFYING THE GAP BETWEEN THE DEMAND FOR AND SUPPLY OF FINANCE AMONG SMALL- AND MEDIUM-SCALE FARMERS IN NAMIBIA

7.1 INTRODUCTION

Agricultural finance refers to finance that is used for crop and livestock production (Vitoria *et al.*, 2012). Formal financial institutions such as commercial banks and even venture capital funds and private equities refrain from providing finance to small businesses, more especially to those in the agricultural sector, due to the risk involved (Coates & Hofmeister, 2012), information asymmetry and lack of expertise (Amadhila & Ikhide, 2016). Because Agribank is the only formal institution set up with a mandate to provide finance to farmers, the motivation for this paper was to determine the magnitude of the agricultural SME finance gap and the causes of such a gap.

Although previous literature already provides useful information with regard to the SME finance gap in countries such as Ghana (Abor & Biekpe, 2006) and South Africa (Underhill Corporate Solutions, 2011), this information is very generalised (see also Lopez de Silanes, McCahery, Schoenmaker & Stanišić, 2015) in that it does not focus on specific sectors or focuses only on views from the supply side (Ramlee & Berma, 2013). Of the few studies that focus on the agricultural sector, many have been done in countries outside of Africa such as Australia (Watson *et al.*, 2009) or report on different countries in one report, and many times these reports do not include Namibia (Doran *et al.*, 2009). This paper goes beyond the methodology convention in previous research in the literature to describe and explain in more nuanced detail by making use of primary data and descriptive statistics to illustrate the data. This is combined with a naturalistic approach that involves narratives from interviews (from both the demand and the supply side) that highlight and illustrate key issues to gain a deeper understanding of the matter as opposed to the pure use of secondary information by similar studies in the literature (see Beck, 2013; Cressy, 2002) or the use of survey questionnaires (see Watson *et al.*, 2009). It is hoped that this methodology will provide new insights for planners, policy makers, researchers and others involved in the agricultural sector in order to provide evidence-based solutions to the challenges faced in the agricultural sector.

Following this introduction, this paper works at achieving the following objectives:

1. To determine the magnitude of the agricultural SME finance gap.
2. To determine the reasons behind such a gap in the Namibian context.

The structure of the paper is as follows: Section 7.2 provides a conceptualisation of the agricultural SME finance gap as well as the definition of Namibian SMEs, Section 7.3 provides the theoretical framework of the study, Section 7.4 looks at why a finance gap exists in agriculture, Section 7.5 gives the methodology of the study, Section 7.6 presents the results and Section 7.7 presents the discussion and summary.

7.2 CONCEPTUALISATION OF AGRICULTURAL SME FINANCE GAP

SMEs seem to fall between different financing arrangements. According to De la Torre, Martínez Pería and Schmukler (2010) and the IFC (2010), microfinance institutions have emerged to serve the smallest enterprises, commonly referred to as microenterprises, and banking institutions emerged to serve large corporations. SMEs fall between these two markets where there is a finance gap. Government efforts to subsidise inputs for SMEs have led to unreliable supplies and rationing, generally favouring large farmers (Minot, 1986), and when microfinance institutions decide to finance SMEs, this comes at usurious interest rates (Milder, 2008; Tschach, 2002).

The agricultural SME finance gap for farmers is referred to as the lowest three segments of farmers. The three lowest segments are semi-commercial smallholders, commercial smallholders and medium-sized farmers (see Figure 7.1 below). All three segments have difficulty accessing formal finance, especially when producing staple crops and seeking for medium- and long-term financing. This paper refers to agricultural SMEs as semi-commercial smallholders, commercial smallholders and medium-sized farmers engaged in primary crop and horticultural production in communal areas in Namibia.

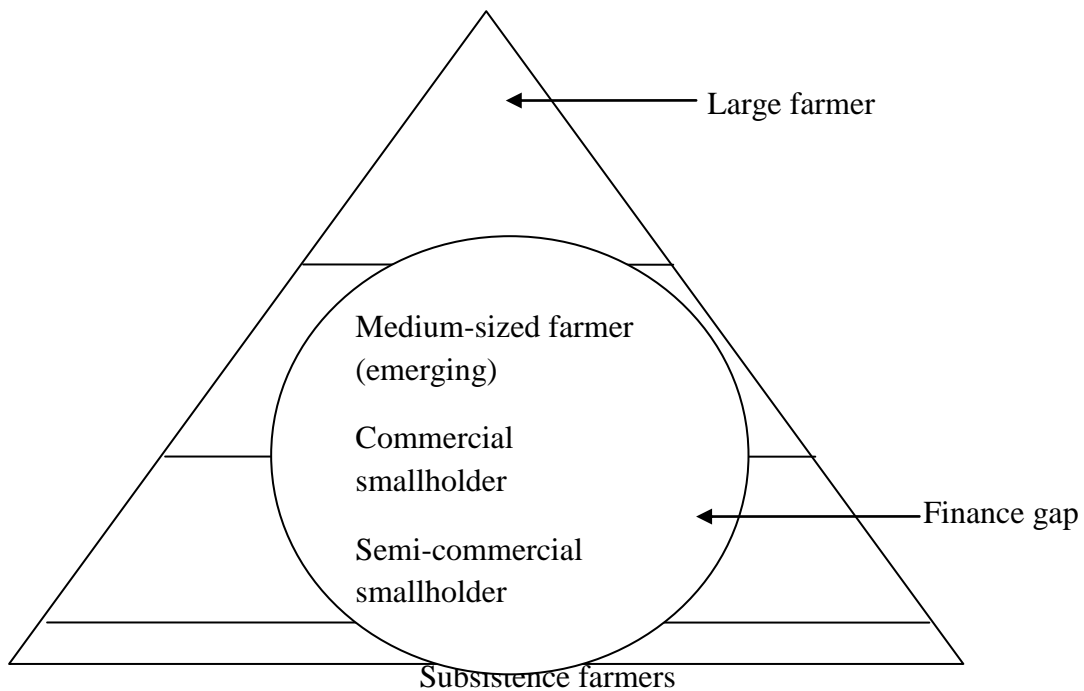


Figure 7.1: Segmentation of farmers

Source: Adapted from the IFC (2012:20)

Doran *et al.* (2009) refer to the agricultural finance gap as a ‘missing middle syndrome’, which means that loans are rarely provided in the range between where small amounts of finance requested end (US\$5 000) and where large amounts of finance commence (US\$500 000). In summary, agricultural SMEs usually borrow funds that fall between US\$5 000 and US\$500 000 and thus are referred to as the missing middle. Subsistence farmers have limited resources with most of their incomes from off-farm activities. The size of their cultivated land is less than two hectares, accounting for 80% of all farms in Africa.

Data that show specific figures of the finance gap in Africa are very scanty; there is an argument that the financial development gap is stark (Allen, Carletti, Cull, Qian, Senbet & Valenzuela, 2012). Access to formal credit in many African countries is confined to larger urban centres where collateral requirements are high.

7.3 THEORETICAL FRAMEWORK

According to the Consultative Group to Assist the Poor (2013, cited in IFC, 2014), there are no precise numbers on the demand for agricultural finance except those based on estimations. Similarly, the percentage of smallholders with access to finance is difficult to quantify. This difficulty is brought about by a lack of data. For example, in many African countries, the issue of a financing gap between demand and supply is discussed but is hardly an exact figure put on paper to determine the magnitude of this gap. For instance, in Zimbabwe, the scale of demand is uncertain as there is no comprehensive data available for agricultural credit. However, there is evidence of a strong but unmet demand for credit amongst small-scale and medium-scale farmers. The unmet demand for credit is caused by the limited supply of credit and its prohibitive cost. Farmers expressed no interest in applying for agricultural loans due to fear of not being able to pay back the loans (Vitoria *et al.*, 2012).

In Asian countries, a study done in Uttar Pradesh in India by Desai (1988, cited in De, 2010) showed that in 1984 to 1985, the aggregate credit supply for agricultural production from all institutional sources amounted to Rs32 190 million while the credit requirement by farmers amounted to Rs278 240 million, amounting to a credit requirement gap of Rs246 050 million. Similarly, the Economic Survey of Pakistan 2009/10 indicated that total agricultural credit disbursements had increased from nearly Rs45 billion in the fiscal year 2000/01 to more than Rs166 billion in 2009/10. Despite such increase, growth in the supply of agricultural credit has also fallen behind growth in its demand. The demand-supply gap stood at about Rs280 billion in 2009/10, and the supply of institutional agricultural credit during the fiscal year 2009/10 fell short by more than half of the demand according to the State Bank estimates. This continued shortage of institutional credit has led to increased farmer reliance on the informal credit market (Arshad, 2011).

Most other studies that have estimated the finance gap (because of a lack of data) in microfinance literature tend to overestimate. The problem with overestimation, however, is that one runs the risk of making the unrealistic assumption that every person in the identified population would have an outstanding microloan all of the time. This is because the current methods used to calculate the potential demand for microfinance take into account the

population and income levels (Anand & Rosenberg, 2008). Some population-based estimates divide population by average household size on the assumption that there will be one microloan per household, more or less (Bruck, 2006; World Bank, 2006). Others reduce the overall poor population by suggesting a percentage who are 'economically active' or 'economically able' or 'the working poor' and thus are assumed to be potential borrowers (Ehrbeck 2006, cited, in Anand & Rosenberg, 2008).

Because of the difficulty in estimating the finance gap, country-specific estimates begin not with the poor population but with the number of micro-entrepreneurs, retrieved from survey or census data (Navajas & Tejerina, 2006; Tejerina & Westley, 2007, cited in Anand & Rosenberg, 2008). The danger in this approach is that the estimate of potential borrowers is too broad and needs further reductions. For example, to assume that every poor person in the identified population would require a microloan would be overambitious. Many poor people do not want microloans, even if they qualify for them. They may be unwilling to commit to the terms and conditions of the loan, including the repayment plan, and may prefer to be financed through savings, loans from family or informal money lenders or they simply may have no good use for borrowed funds (Anand & Rosenberg, 2008).

Reinke (2004) also points out that the methods used to estimate microfinance demand have significant shortcomings because many people who want to start microenterprises do not want to be in debt. They would rather wait until they have accumulated enough of their own assets before they start a business. Current estimates also ignore the fact that many of the poor prefer the safety of employment and do not want to be entrepreneurs. Starting a small business is a survival strategy and not their primary choice of generating an income. If they do choose to start a small business, owners might not want to take the risk to leverage their businesses upwards as they cannot absorb large amounts of capital due to the small size of their businesses. The perceived gap in the market is therefore limited and much smaller than the estimates (Anand & Rosenberg, 2008; Hes & Polednáková, 2013).

People who want and qualify for loans are not necessarily borrowing all the time. For example, between 2003 and 2004, microfinance institutions and the government of Bangladesh reported 23.8 million members, but only two-thirds were active borrowers as of

the respective reporting dates. This raises suspicion that demand estimates are overstated (Anand & Rosenberg, 2008).

The World Bank estimates for the mid-1980s posit that the need-versus-availability gap is aggravated by the fact that only around a third of the institutional disbursements goes to small and marginal farmers (De, 2010). The theory guiding this paper is that of demand and supply of finance for agricultural purposes from the formal sector. There is evidence that a lack of access to finance is a major bottleneck for agricultural development (Hartig *et al.*, 2014) and that financial penetration is low when it comes to agricultural finance, particularly in Namibia (Amadhila & Ikhide, 2016). Traditional commercial banks and other financial institutions are very reluctant to finance farmers, in particular small farmers.

Given the controversy surrounding the demand estimates for microcredit, establishing the demand potential of SME finance in developing countries is not as straightforward. However, there is a perception that a significant gap between demand for and supply of finance exists. The real question is how wide this gap is and what the cause thereof is. Just like previous studies, this essay also estimates (because of a lack of sufficient data) the gap between demand and supply. To avoid overestimation of demand, small- and medium-scale farmer (instead of the entire farming population) loan applications and amounts requested data are used. The next section reviews the empirical literature on causes and ways to reduce the SME finance gap.

7.4 WHY A FINANCE GAP IN AGRICULTURE?

There is a perceived gap between the demand for and the supply of funds for agricultural purposes (Morvant-Roux, 2007). This gap has been attributed to issues on both the demand and the supply side. This section reviews the empirical literature on access to finance in terms of causes of the agricultural finance gap and how it can be reduced.

The ‘unique nature’ of agricultural businesses is often viewed as an excuse by financial institutions for not financing agriculture and as a result of a finance gap. The IFC and McKinsey conducted a study in 2010 using existing research and a literature review as well as numerous primary interviews with SME banking experts and practitioners worldwide. It was found that agricultural SMEs faced special challenges and opportunities because finance

for agricultural purposes in general involves higher transaction costs due to the greater distances, lower population densities and lower quality of infrastructure encountered in serving rural areas, which discourage smaller transactions (IFC, 2013).

Similarly, addressing the historical background of agricultural finance in West Africa, Doligez *et al.* (2010) posit that the reach of financial services for agricultural farms remains quite limited because of the territorial dispersion of borrowers, distance from places of residence to places of business, isolation of some regions and low population densities in many rural situations, which increase financial services transaction costs. Further problems such as the small size of the unit amounts to be managed for the various transactions (deposits and loans), which are often not profitable given the unit costs of the individual records that must be borne by the financial intermediaries, were also identified. More unique features such as the weakness of human capital available locally, which increases the management constraints on institutions, and the financial discipline often referred to as the ‘culture of credit’ whereby a loan is sometimes treated as if it were a grant or an entitlement all explain the limited reach of financial services. The World Bank (2008a) report adds weather risks in Bangladesh as an additional challenge in serving farmers because of the uncertainty involved.

Tschach (2002) explored the problem of credit market segmentation based on graphical analysis, and he noted that although there was no literature that explained why no institutions that offered medium-sized loans to medium-sized enterprises at ‘medium’ interest rates existed, there was an argument that SMEs were too small – and thus unattractive – for formal sector banks. Medium-sized enterprises thus have no access to either formal- or informal-sector financing.

The IFC (2012) report using case study models based on a background stocktaking report by Rabobank International Advisory Services for the IFC as well as a databank with information provided by the IFC from other sources further elaborates that an assessment of agricultural SMEs’ creditworthiness is costly for financial institutions and in most cases exceeds the profits that they can make. As the farmer grows from a smallholder to a specialised farmer, the bank must analyse all the details of the business. To cover such costs, loans must be

significantly larger, reaching a size that greatly exceeds the absorption capacity for capital of the SME, hence the financing gap.

The OECD (2006) carried out a qualitative study and circulated a questionnaire to officials in all member countries as well as to a large number of non-members (over 100 economies in all) to gain some insights into factors influencing the provision of financing to the SME sector. The aim was to analyse the SME finance gap. The report argues that many non-OECD countries report a widespread shortage in SME finance and that one of the main reasons is that if commercial banks have possibilities of earning higher returns by lending to borrowers other than SMEs, they will not be willing to develop the skills needed to lend to SMEs and thus will not be very inclined to lend to SMEs. Similarly, in India, a study drawing on past studies and previous research found that commercial banks had failed to reach a target of 18% lending to farmers by 3.7% because other sectors such as information technology and real estate had entered the ambit of priority sector lending and as a result increased the competition for institutional credit (De, 2010).

Examining how the finance gap for SMEs might be addressed through a questionnaire survey based on a sample of 200 firms drawn from the database of the National Board for Small Scale Industries and that of the Association of Ghana Industries, Abor and Biekpe (2006) argue that the presence of the 'finance gap' is mainly the result of the existence of information asymmetries between lenders and borrowers, which should be improved. Information asymmetries refer to the disparity between the information available to businesses seeking capital and to suppliers of capital who are typically assumed to be at an informational disadvantage with respect to insiders of the business. When lenders do not have enough information about the borrower and are uncertain about the borrowers' ability to pay back the loan, the lender may deny credit to such a borrower even if he or she is creditworthy.

Within the context of information asymmetry, two issues are identified by Stiglitz and Weiss (1981). These are adverse selection and moral hazard. Concerning adverse selection, theoretical models often assume that borrowers have private knowledge about the success probability of their businesses or expected profits that they do not share with the lender. Consequently, lenders cannot differentiate between a high-quality business and a low-quality

business and adverse selection can result. Moral hazard refers to the inability of the lender to control fully how the entrepreneur uses the funds provided. Owners can conceivably benefit economically by, for example, redirecting borrowed funds to invest in higher risk businesses than those approved by the lenders. Both SMEs and financial institutions create the finance gap through SMEs' unwillingness to share information but also because financial institutions prioritise where the high returns will come from.

Milder (2008) examines innovative value chain finance applications that emphasise models tailored to SMEs that fall within the rural finance gap from the United States of America-based social investment fund Root Capital, which lends directly to rural grassroots in Uganda. Milder (ibid) is of the view that in order to close the finance gap, commercial financial institutions have the potential to respond to the demand of various financial services through agricultural value chain financing. These financing mechanisms could be 1) shifting local lending practices whereby agricultural banks provide loan guarantees (loan guarantees mean that an agricultural bank forms a relationship with a good number of local banks and the local banks enter into a risk-sharing agreement whereby the agricultural bank guarantees a portion of any losses from loans to farmers that pertain to the agreement) and 2) risk sharing with local banks with the objective of attracting local banks to farmers and convincing banks to accept other forms of collateral besides fixed-asset collateral (see Milder, 2008).

Drawing on examples from many countries worldwide, Doran *et al.* (2009) argue that in order to reduce the financing gap, the common theme is to work with the private sector to remove frictions of various kinds, thus improving the balance between risk, cost and return. A number of initiatives are suggested:

1. Nongovernmental organisations with a financial focus and a business development culture should create linkages and network in at least the early stages of the business among financial suppliers, women and men producers, buyers and other service providers.
2. Multilateral donors can be key sponsors of financial sector reform programmes, working with national governments and central banks. Reforms can focus on specific

institutions such as agricultural development banks or on stimulating competition in rural finance.

3. Innovative financing mechanisms such as warehouse receipts and leasing by donors and international financial institutions.
4. Forming of alliances between commercial banks and nonfinancial distribution networks, for example of irrigation equipment or mobile phone services.
5. Socially responsible investors of various kinds, either working directly or in conjunction with banks.
6. Foundations and socially oriented banks offering partial and temporary guarantees on a commercial basis.
7. Poverty-focused nongovernmental organisations exploring the possibility of building capacity in women's and men's smallholder groups in remote and difficult locations.

Implementation of these and other efforts is needed with careful examination of what is working and what is not in order for solving of the finance gap to be achieved and successfully implemented.

Estimating the link between credit to SMEs and growth on income per capita while at the same time assessing the potential impact that closing the credit gap for women-owned SMEs can have on economic development, Stupnytska, Koch, MacBeath, Lawson and Matsui (2014) reason that improved access to financing needs to be complemented with business training and mentoring to ensure productive use of capital. The researcher's view is that proper training to farmers as well will allow not only productive use of capital but also the sustainability of their farms in the long run. Finally, using secondary sources to understand the nature, extent and causes of the challenges faced in improving the level of financial inclusion in Zimbabwe's rural communities, Vitoria *et al.* (2012) opine that access to finance for the agricultural sector could be improved by enhancing both the demand and supply. Demand for finance could be enhanced through greater awareness and understanding of services while supply could be improved through enhancing key national issues affecting the

financial sector, the economy and law enforcement, thereby creating an enabling environment for investment (Vitoria *et al.*, 2012).

7.5 METHODOLOGY

For the first part of the objective of this paper, a quantitative approach was employed to estimate the finance gap. The loan approval rate of 70%²¹ at Agribank was used to estimate the number of loan applications received. After this had been determined, the average size of loans multiplied by price (amounts granted) determined demand. Given the total amounts granted by Agribank (supply), the difference between demand and supply gave the finance gap.

For the second objective, the causes of the finance gap were sought. A qualitative case study methodology approach was adopted using in-depth semi-structured interviews (this is explained in detail in Chapter 4).

Following approval granted by the University of Stellenbosch Business School ethics committee and by Agribank, a total of 28 interviews were conducted on the demand side. Depending on the availability of farmers and a convenient time for the researcher and participants in the various regions, six interviews were conducted with farmers from the Ndonga Linena Irrigation Scheme, six with farmers from the Hardap Irrigation Scheme and six with farmers from the Etunda Irrigation Scheme. In addition, 10 independent farmers in the same regions in addition to the Oshana Region who were operating outside²² the Green Scheme projects were also interviewed. These farmers were from Second Chance Garden, Eugene Farming, Path Garden and S&T Veg in the Omusati Region, Pozere and Gamade gardens in the Kavango Region and four farmers from the Oshana Region. It is important to note that of the six Hardap Green Scheme farmers interviewed, three (medium-scale farmers) were operating within the project but were not receiving financial assistance from Agribank because either they did not want finance from Agribank or they had not been successful in

²¹ An approval rate of 70% is information received from Agribank.

²² Identified by way of snowball sampling.

securing finance, adding to the number of independent farmers. The interviews in Oshana region were conducted between December and January 2015.

On the supply side, two key informant interviews²³ were conducted at Agribank offices. These interviews were held with key informants at the Head Office in the Khomas Region and Oshakati Branch in the Oshana Region. The third interview was conducted at the MAWF Head Office in Windhoek (capital city of Namibia). Because Agribank is subsidised by the government, it was deemed necessary to also include the MAWF. Personnel from AGRIBUSDEV, an entity responsible for overseeing the operations of the Green Scheme projects in the country that are financed by Agribank, were also interviewed.

7.6 RESULTS

7.6.1 Brief background and characteristics of Agribank

Agribank started way back in 1907. It is a government-owned institution and provides loans for agriculture- and fisheries-related economic activities to small-, medium- and large-scale farmers.

When Agribank processes a credit application from a customer, the following minimum information is needed (Agribank, 2014):

- Comprehensive details regarding the identity of the borrower.
- Evidence of the borrower's legal ability to borrow.
- Ability to repay the loan, including the timing and source of repayment and evidence of verification thereof.
- Description of the terms of credit obligation.
- Assessment of major risks and key litigants.
- Credit checks.

²³ The justification of two key informant interviews at Agribank has been explained in Chapter 5.

- Overview of the facility and collateral.
- Documentary evidence of review and approval process.

Given that the government provides collateral and subsidised loans (through Agribank) to small-scale farmers employed in the Green Scheme projects, these farmers (many of whom come from practising subsistence farming) first go through agricultural training (including but not limited to seed production and crop production) for a period of one year to allow success of their projects once they are employed and for the government to access enough information about them and assess their ability to repay their loans. Once farmers are employed in the Green Scheme project, the financial management of their farms is carried out by a service provider appointed by the government, meaning that farmers do not deal directly with the loans despite the fact that these Agribank loans are their obligations. This is consistent with results found by Koranteng (2010) on financing smallholder farmers in South Africa in the case of the Industrial Development Corporation (IDC)'s Kat River citrus development scheme. Farmers employed at this scheme receive finance from the IDC, but it is controlled by Riverside Company who acts as a service provider.

Although farmers are subsidised by government, there are still small- and medium-scale farmers who are excluded from the Green Scheme. Of the small-scale farmers who are funded, 80% is guaranteed by government and 20% by Agribank. The small-scale farmers have to sign the tripartite agreements between the farmers (the MAWF signing as an underwriter for the loan), the service provider and the financier, Agribank. A fair number of small-scale farmers refuse to sign the tripartite agreements as they feel that some of the terms of agreement are not favourable to them (Kandjeke, 2013). Medium-scale farmers, in contrast, are expected to provide their own collateral if they intend to borrow money from the bank. This gives a reason to estimate the gap between demand and supply.

7.6.2 Characteristics of borrowers interviewed

Farmers in the Green Scheme have signed renewable lease agreements for a period of five years with the MAWF. and many are between the ages of 24 and 55. All farmers interviewed have employed only up to a maximum of five people but only on a temporary basis because

of the seasonal nature of the work and because the sizes of the plots do not allow many assistants.

7.6.3 Magnitude of the finance gap between demand and supply

Table 7.1: Gap between demand and supply among communal farmers in Namibia

Year	2012	2013	2014	Overall
Number of loan applications received	623	316	529	1 468
Number of loans approved	436	221	370	1 027
Amounts granted (N\$)	62 333 436	28 764 407.84	56 828 666.66	147 926 511
Percentage of total amount granted	23%	11%	19%	18%
Amount applied for (estimate)	89 068 189.54	41 129 198.54	81 249 634.22	211 447 022
Finance gap (estimate)	26 734 754	12 364 790.70	24 420 967.56	63 520 512

Source: Agribank (2012; 2013; 2014) and estimations by the author

From Table 7.1 above, one can see that for the three-year period 2012–2014, there is a clear mismatch between demand and supply. The estimated agricultural finance gap stands at N\$63 520 512. However, the finance gap has fluctuated, falling significantly between 2012 and 2013 and rising again between 2013 and 2014 from N\$12 364 790 to N\$24 420 967.56.

7.6.4 Causes of the finance gap

This section provides the causes of the finance gap in Namibia from both the demand and the supply side.

7.6.4.1 Supply side

The major issue arising from the supply side, namely Agribank, is loan default by farmers.

The manager of xxx at the Agribank Head Office noted:

The recovery problem is, is generally a problem especially with the Development Finance Institutions (DFIs) and when the people have got the perception that it is government money so it's always a bit of problem. (P17, 73:73)

This supports previous literature by Singh and Sagar (2004, as cited in De, 2010) who posit that a notion has settled among many rural borrowers that loans taken up by them are government supported and hence need not be repaid.

Figure 7.2 below indicates that amounts in arrears have been on the increase between 2012 and 2014 from N\$224 million reaching N\$387 million.

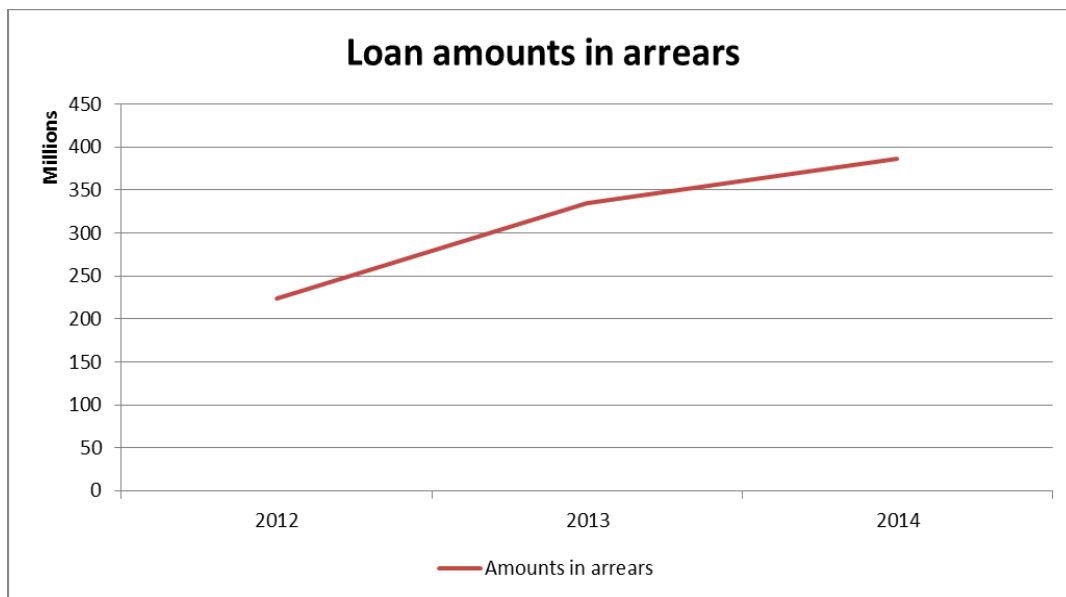


Figure 7.2: Loan amounts in arrears

Source: Agribank (2012; 2013; 2014)

On the issue of loan default, farmers feel that their default on loans (as argued by lenders) is caused by insufficient capital provided by the bank, higher cost of inputs and low selling price. The following quote summarises this belief:

The requirements are fine its just that the loan amount itself is not enough because for anyone to put up collateral at the bank they usually put up a collateral equal to the value of the amount of money they are requesting so when the government decided to put a collateral, we don't get enough money because the value of the collateral is small. It makes it difficult because the costs of inputs nowadays are very high

especially considering the fact that most of the inputs such as fertilizers and chemicals are coming from South Africa now you have to buy this product on higher costs and when it comes to selling price the selling price is too low because which leads us not to pay back the money from Agribank. (P11, 104:104)

Riedl (2007) argues that low selling price is caused by overproduction and market influence on price, which lead farmers to reduce their prices in order to sell most of their produce.

In addition to loan default, dishonesty among medium-scale farmers towards Agribank is argued by lenders to be another issue that widens the gap between demand and supply. Impressive business plans are drawn up with promises of qualification in agriculture, but when farmers are given funds, the job on the ground does not match the promises on paper, which leads to low agricultural production and therefore losses. The importance of the quality and the content of the training offered to farmers may need to be reconsidered to make sure that funds are used productively.

7.6.4.2 Demand side

On the demand side, three different categories of farmers are found: those who borrow, those who do not borrow and those who borrow but are given lower amounts than they applied for. All three categories share the sentiment that demand mismatches supply because of a lack of compliance with bank requirements and also because of a lack of financial institutions in the country. Two farmers narrated the following:

Money is available but if one does not have the requirements e.g. collateral that the banks are looking for, it becomes a problem to get access to funds. (P35, 57:57)

I think demand is more than supply because is there any other institution that gives funds to farmers apart from Agribank? (P38, 72:72)

Farmers who choose not to borrow, many of whom are operating outside the Green Scheme projects, argue that they do not have information on the financing schemes available at

Agribank and that is why they do not borrow. This reason was advanced more frequently than any other. Farmers from the Omusati and Hardap regions noted the following, respectively:

I think there is a lack of information on the side of the farmers on where to get funding that is why they struggle to get funding. (P15, 107:107)

Rumours from the community for example from SME funds are spread but because no formal institution is giving awareness so trust is minimal. Information is not very clear about agricultural funds. (P2, 88:88)

Other independent farmers feel that they do not need the funds to carry out their agricultural activities, and that is why they do not borrow.

I don't need the funds. It is not hundred of thousands so I do not really need funds from financiers. (P1, 67;67)

This is consistent with results found in Ecuador, Guatemala, Nicaragua, Panama and the Dominican Republic cited in Anand and Rosenberg (2008). They found that 42% of people (among their respondents) who did not apply for loans did not do so because they did not need the loans.

Finally, there are some farmers who borrow but are given lower amounts than they applied for.

The amount which I applied for was three hundred and fifty thousand and the one I got was one sixty one. (P9, 159:159)

Another participant noted:

We give our business plans and then Agribank goes with it and then our cropping programmes go to the extension officer's office, Agribank looks at it and come up with a decision on how much money to give. (P13, 91:91)

Agribank decides what amounts farmers (employed in Green Scheme projects) should receive, and thus it is not always up to the applicants to decide on the amounts that they should receive for their farming activities.

7.7 DISCUSSION AND SUMMARY

The aim of this paper was to identify the gap between the demand for and supply of financial resources and the reasons behind this gap. The results confirm that there is a mismatch between the demand for and supply of funds. The finance gap increased between 2013 and 2014. From the interviews conducted, it is clear that the mismatch between demand and supply is caused by loan default and insufficient information provided by farmers (on the supply side) and lack of satisfying financing requirements and low supply of funds (on the demand side). While there are farmers outside the Green Scheme who do not borrow because they are not sufficiently informed about financial services, the researcher argues that there is no gap in this regard but rather a lack of information on the availability of financial services in the country. This points to imperfections in financial markets. Access to information is important, and Agribank could implement aggressive marketing to allow farmers in rural communities, especially those working outside the Green Scheme projects, to be aware of the financing schemes available at Agribank. This may allow them to apply for financial assistance and thus promote agricultural activities.

Farmers who borrow attribute the loan default problem to factors such as insufficient capital, higher cost of input and low selling price. Perhaps in addition to subsidised credit extension, agricultural support should develop innovative ways of lending because the question still remains how much subsidized credit is really 'sufficient' to allow purchase of inputs and still be able to repay the loan. For countries such as Indonesia that have performed better in their agricultural sectors, subsidy programmes have also always provided limited quantities of subsidised credit so that not all farmers had access to this credit. Most farmers who had access still could not obtain all the financing that they wished to obtain with the subsidy. Instead, there was improved provision of formal sector credit through Bank Rakyat

Indonesia²⁴ (BRI) (Cervantes-Godoy & Dewbre, 2010). The sole focus on subsidised credit for farmers could therefore be doing much harm, not only to farmers but also to lenders because of loan default.

This study has implications for crafting and developing financial services structures that have macroeconomic effects, especially regarding the profitability of agriculture for smallholder farmers, such as access to information and finance.

²⁴ A detailed discussion on BRI is provided in the following chapter.

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Chapter 8

GOVERNMENT FINANCIAL SUPPORT FOR AGRICULTURAL SMEs: LESSONS FROM BRAZIL AND INDONESIA

8.1 INTRODUCTION

The government is considered as an entity that consists of a multitude of actors such as politicians who must seek political support from various groups, bureaucrats, technocrats and so forth. It is a nonmarket organisation, and it generally must do things on a large scale (including enforcement of contracts, provision of information, such as agricultural research, and extension and provision of basic public services, such as roads and communication) (Krueger, 1990).

Governments in most African countries have tried to intervene and set up financing mechanisms in the agricultural sector. Despite the operations of Agribank, which has been in existence for 26 years after independence in 1990, agricultural productivity has not been encouraging. From 2008 to 2011, the agricultural production index in Namibia has been on the decline: 85.60 in 2008, 85.14 in 2009, 83.97 in 2010 and 81.01 in 2011 (Food and Agriculture Organization, 2015).

This paper intends to review countries (Brazil and Indonesia) that have achieved high agricultural output through reliance on government-sponsored financial institutions to finance agriculture. The issue is what we can learn from their financing model (Duff & Padila, 2015).

The specific questions that the paper tries to answer are, What are the specific government financial efforts or interventions to support farmers in Namibia, and how do such interventions compare with those in Latin America and South-East Asia? Are these interventions directed at the real sector, in other words production and marketing, and/or at the financial sector, in other words agricultural finance? The answers to these questions are crucial because for governments in both developed and developing countries, the agricultural sector remains a strategic sector and ensuring food security is high on the political agenda (Maurer, 2014).

Towards this end, the history of government intervention in agriculture is reviewed in Section 8.2, Section 8.3 reviews the literature on the new forms of intervention in the agricultural sector, Section 8.4 focuses on the methodology, Section 8.5 looks at the Namibian case, Section 8.6 explains the major issues with the interventions in Namibia, Section 8.7 compares Namibia's government intervention to those of Brazil and Indonesia and Section 8.8 provides the discussion and conclusion.

8.2 HISTORY OF GOVERNMENT INTERVENTION IN AGRICULTURE

Before independence in 1990, agricultural services in Namibia were provided mainly by the second-tier ethnic administration operation in the context of the pre-independence regime's policy of apartheid. The commercial sector was well served as compared to the communal sector in terms of research, extension and training services run by the colonial administration. In addition, a number of statutory bodies and parastatals provided additional research, financing and marketing services to the commercial sector. This type of practice excluded black native farmers mainly operating in communal areas (Vigne & Whiteside, 1997).

In order to include the mass of native farmers, mainly small- and medium-scale farmers, one way of intervention in Africa took the form of contract farming. In the period 1930–1950, contracting was used in many food and fibre sectors. Given the poor performance of agriculture in many developing countries, especially in Africa, many donors and governments hoped that contract farming and its variants (outgrower schemes, nucleus estates and satellite farming) would bring about improved incentives, increased income for farmers and positive multiplier effects for impoverished rural economies; indeed, there was considerable growth in the number of contract farming schemes during the 1970s and 1980s (Kirsten & Sartorius, 2002).

In the 1980s to the 1990s, the predominant approach in agricultural finance by the government was the provision of farmer credit with subsidised interest rates, particularly via specific state programmes or state-owned agricultural/development banks (Köhn & Jainzik, 2014).

Government intervention started through the establishment of state-owned DFIs. These were established to serve as a response to the widespread perception that the private financial

entities were uninterested in serving the target clientele, especially those in agriculture. These institutions obtained much of their funding from related governments or from foreign assistance. They were planned to provide SMEs with the long-term financing that the commercial banking sector would not supply. The underlying primary objective was to reduce poverty (Yaron, 2004).

The government implemented a Green Scheme policy with Agribank (a state-owned bank) to encourage the development of irrigation-based agronomic production in Namibia (including small- and medium-scale farmers who received subsidised loans by government). The ultimate aim was to increase food production, thereby contributing to the national agenda for food self-sufficiency and food security as well as job creation (MAWF, 2008) As a result of the Green Scheme implementation, a funding scheme with Agribank was created in 2010 in accordance with Cabinet Decision No. 1st(b)/13.04.10/008) (Kandjeke, 2013). The decision authorised the utilisation of the Cooperative Loan Guarantee Fund for the purpose of guaranteeing loans to be advanced to small-scale farmers. The loan for the small-scale farmers was guaranteed by government at a level of 80% and 20% by Agribank. The small-scale farmers had to sign the tripartite agreements between the farmers (the MAWF signing as an underwriter for the loan), the service provider and the financier, Agribank. The consequence of the Green Scheme intervention by government was that a fair number of small-scale farmers refused to sign the tripartite agreements and defaulted on their loan repayments. The refusal to sign arose from small-scale farmers who felt that some of the terms of agreement were not favourable to them and thus sold their produce to an independent marketer. This violated Article 2 of the lease agreement that stated that the small-scale farmers should “honour their obligations towards the Financier, Service Provider and the Ministry failure of which he/she shall be required to vacate the plot and dwelling” (Kandjeke, 2013:13). Ten small-scale farmers owed an amount of N\$1 452 856 to Agribank and N\$1 583 459 to the service provider as at 31 March 2012. As a result, they were put up for eviction (Kandjeke, 2013).

Besley (1994) criticised government’s intervention on the ground that many of the policies were not consistent with objectives of helping the poor. Two central facets of many government backed-loan programmes were pointed out: Firstly, default rates were typically

very high and, secondly, much of the benefit appeared to go to wealthier farmers (Besley, 1994). This mirrored observations made in Namibia when it was found that Agribank ran the risk of loan default among borrowers because government provided collateral on behalf of smallholder farmers and these farmers felt that if they defaulted on their loans, they had nothing to lose. This led to high default rates (see results in Chapter 7). Trivelli and Venero (2007) argue that lending programmes by government merely served government's political ends and/or underestimated the difficulties and risks implicit in their implementation as subsidised credit encouraged farmers to choose unprofitable crops and therefore led to non-repayment of loans.

It was in this context that considerable re-thinking about interventions in rural credit markets, especially in developing countries, and in particular the view that interventions should be restricted to cases where a market failure has been identified was suggested (Besley, 1994).

8.3 NEW FORMS OF INTERVENTION

It is thought that some of the many roles of government are to 1) contribute to the development of institutions for improving the markets for labour, finance, technology and so forth and to 2) offset or eliminate price distortions that arise in cases of demonstrable market failure (Stiglitz, 1993; Wade, 1990). For this reason, market failure in the credit sector has been used as a motivation for government to intervene. This intervention takes the form of state-owned DFIs. The intervention of the government through state-owned DFIs is justified as the only option to provide financial services to underserved segments of the population when the primary objective is to reduce poverty (Yaron, 2004). Market failures may occur if large firms have control over credit markets and use their bargaining power to obtain loans on privileged terms. Large firms have an implicit guarantee in that they are more likely to be rescued by government when there is a crisis, hence the need for government intervention to increase small firms' access to credit. However, there is also the view that government should limit its own activities to improving the functioning of markets and to providing only those goods and services in which the government has a clear comparative advantage relative to private agents (Wade, 1990).

There have been two main schools of thought regarding government intervention in the credit sector. The first school argues in favour of government intervention in order to reduce market failures, and the second school argues that a market approach should suffice to deal with market failure problems. There have been justifications and major criticisms for each.

8.3.1 School in favour of government intervention

The need for government intervention to reduce market failure in rural financial markets has been motivated by four issues, namely monopoly, externalities, imperfect information and enforcement problems.

8.3.1.1 Monopoly

Monopoly (also referred to as market power) arises when loan arrangements cannot be tailored to each individual. This leads to monopoly inefficiencies whereby lenders restrict funds to increase profits. In this case, intervention by government through regulation of interest rates and provision of alternative source of credit is an option (Besley, 1994). A firm may be found to have monopolised a market unlawfully by maintaining a monopoly power for a period of time substantial enough to indicate that market forces by themselves will be unable to undo the firm's dominant position. The existence of dominant firms has undesirable consequences. Some of these consequences are resource misallocation and the inability to deal with established monopoly results (Williamson, 1972).

8.3.1.2 Enforcement problems

An enforcement problem arises when a borrower is able but unwilling to repay his or her loan. Enforcement problems can take two forms: Firstly, the lender must attempt to enforce repayment after default has occurred. Secondly, enforcement problems are exacerbated by the poor development of property rights such as land. In the first case of enforcing payment after default, defaults by rich farmers are usually not penalised because the political costs are too high. The government then steps in and introduces debt-forgiveness programmes. This has been common in India and documented in Bangladesh as well. In the second case where there is poor development of property rights such as land to serve as collateral, government can help to solve collateral by improving the codification of property rights. However,

government intervention in enforcement by introducing debt-forgiveness programmes gives the wrong signal to borrowers if these programmes engender expectations that loan default will ultimately be rewarded by debt being forgiven. Ultimately, government's ability to commit itself to a policy of imposing sanctions on delinquent borrowers is a significant aspect of the political economy of credit programmes (Besley, 1994).

8.3.1.3 Imperfect information

Imperfect or asymmetric information may prevent an efficient allocation of lending, leading to credit rationing (Pagano & Jappelli, 1993). Greenwald and Stiglitz (1986, cited in Hoff & Stiglitz, 1990) posit that markets with imperfect information give rise to externality-like effects, for which government intervention may be more successful. In the context of credit markets, government expenditure on rural infrastructure (for example land titling and commercialisation in the goods market) that reduces farmers' risks will likely reduce the importance of information asymmetries.

8.3.1.4 Externalities

Externalities may take the form of benefits created by a firm, in the form of goods, services and technology, for which these benefits are not fully compensated in market transactions (Wade, 1990). Furthermore, externalities may also occur in institutions that facilitate the overcoming of informational problems in rural credit markets. Such institutions are, for example, those who provide group lending. There is an externality in this type of lending because the individual who bears the initial cost of organising the group lending institution is providing a form of social capital that in the end will benefit all members of the group. When this externality occurs, there will be an undersupply of the socially beneficial service and there will therefore be a need for government to intervene to help to organise and act as a catalyst in the formation of such institutions (Hoff & Stiglitz, 1990).

Despite the four issues that call for government intervention, the school in favour of government intervention has not been left without criticism. There is an argument that attempts by government to intervene in the market have failed and resulted in wasted economic resources and stagnant growth rather than actually correcting the market failures that they were designed to correct. Furthermore, there is an argument that government

intervention in one market runs a substantial risk of lowering the welfare of the poor because of its connection with other markets that provide some degree of welfare insurance (Timmer, 1989).

Pettinger (2012) opines that governments should not intervene for three reasons: Firstly, they are likely to make wrong decisions in their market intervention by being influenced by political pressure groups as they spend on inefficient projects that lead to inefficient outcomes. Secondly, government intervention takes away individuals' decision on how to spend and act. Thirdly, the market is best at deciding how and when to produce.

There is thus a warning by Yaron, Benjamin and Charitonenko (1998) that there should be careful analyses before appropriate interventions to expand rural incomes. Even if a market failure is identified, direct interventions (subsidies, credit programmes or institutions) are necessary only if the market failure can be addressed cost-effectively; thus, the benefits must exceed the costs.

8.3.2 School in favour of market approach

The second school argues that a market approach should suffice to deal with market failure problems. This school justifies this argument by claiming that market failures are matched by a corresponding list of government failures (Stiglitz, 1987).

Yaron *et al.* (1998) are of the opinion that information constraints do not immediately justify direct government intervention in the market because markets may be constrained-efficient; that is, they maximise incomes subject to the information and other barriers that participants face. For example, features of rural areas such as isolated markets, low population densities and widespread crop failures in a given region often result in high transaction costs. These features differentiate rural financial markets from urban ones and often scare off traditional for-profit financial intermediaries. They do not, however, result in market failure because these features result in high real costs to society that government interventions would also face. "A government failure is not a solution to a market failure" (Yaron *et al.*, 1998:154).

Nonetheless, this school has been criticised on the basis that "free market prices do not provide a satisfactory degree of price stability" (Timmer, 1989:25). The market's own

allocation of resources has been found to be inefficient or unacceptable because of five reasons:

1. Imperfect markets in insurance futures or credit: This means that farmers cannot obtain complete insurance against the big risks that they face without having to pay usurious interest rates.
2. Public goods and increasing returns: The provision of public goods in agriculture such as water is a pure public good, and the marginal cost of using irrigated water is relatively low when government is involved as compared to when left to the market, which excludes the majority of people from benefiting.
3. Imperfect information: The dissemination of information by government, for example what crops grow best in a particular area, is a local public good. However, disseminating information is costly and the benefits accrue mainly to those who receive it.
4. Externalities: The existence of externalities, for example new technology, justifies subsidies for farmers to adopt new technologies.
5. Income distribution: Given the initial holding of assets, the distribution of income generated by free markets does not satisfy society's ethical judgements. It may result in a significant number of people having low incomes or supplies of food (Stiglitz, 1987).

De Cleene (2014) posit that a critical ingredient in bringing about actual sustainable investments on the ground is the need for government and businesses to work together to overcome some of the challenges to successful agricultural growth. A key focus should be the forging of partnerships between the public and private sectors to ensure that African agriculture will be more profitable for smallholder, medium-scale and large-scale farmers alike. Partnerships have the potential to bring about multisector commitment to action. Farmers need access not only to land, seeds and fertilisers but also to transport, power and water. Roads must be built to reach farmers. This calls for access to rural financing through innovative financing instruments that support agricultural development at different stages.

There is a warning that careful analyses should be carried out before appropriate interventions to expand rural incomes are implemented. Even if a market failure is identified, direct interventions (subsidies, credit programmes or institutions) are necessary only if the market failure can be addressed cost-effectively; thus, the benefits must exceed the costs (Yaron *et al.*, 1998).

For this reason, this paper supports the need for government intervention so as not to leave everything to the private sector. This is especially important in minimising monopolistic practices. However, as aptly expressed by Krueger (1990:18), “What is needed is the specification of a set of criteria, or rules, by which interventions will be administered, and an indication as to the process by which this will occur.” Craig *et al.* (2007) caution that one should not jump to the conclusion that the presence of market imperfections in a credit market means that government intervention to correct these is desirable unless one can find a positive correlation between measures of loan guarantees by government and the local economic performance (see also Williamson, 1972). Furthermore, although the market is constrained, government should seek for efficiency, taking into account the imperfections that the market in question has to deal with (Besley, 1994).

8.4 METHODOLOGY

As explained in Chapter 4, a case study research design was adopted. Three data sources were used for this paper: desk research (also referred to as desk reviews), secondary data and semi-structured interviews (with key informants) at Agribank. Because this was a comparison study between three different countries, in the case of Namibia, all three data sources were used. Secondary data included physical research reports, government policies, newspaper articles, and published and unpublished articles that dealt with government projects mainly from the MAWF, Agribank and the Agricultural Marketing and Trade Agency (AMTA). In the case of Brazil and Indonesia, the researcher relied purely on desk research.

The desk research entailed a review of the existing literature on the provision of financial services to smallholder farmers worldwide, including a review of specific innovations and products in Latin America and South-East Asia (see Appendix C for a list of these). This was

done in order to establish what was known about serving this market and to identify where knowledge gaps remained to be filled. The knowledge gaps are summarised as follows:

8.4.1 Country specific research

Most of the literature on government efforts to finance agriculture comes from countries other than those in Africa, and much less literature comes from African countries. This could be attributed to the fact that Asian institutions are frequently suggested as models for successful government interventions in credit markets. The Bank for Agriculture and Agricultural Cooperatives in Thailand, Village Banks of BRI and Grameen Bank in Bangladesh reach millions of clients, many of whom are poor, and they serve agriculture directly or indirectly (IFC 2014; Meyer, 2014). The IFC (2014) disseminated the best practices of microfinance institutions that have successfully implemented agricultural lending operations targeting agricultural smallholders in Latin America and the Caribbean.

8.4.2 Types of products and services offered

The type of assistance offered in the current literature (IFC, 2011; 2014) does not specify whether these products and services are targeted at the production and marketing sector (real sector) of the business or at the financial sector. According to Maurer (2014), price controls and subsidies constitute the real sector interventions while agricultural finance institutions constitute the financial sector of government intervention. However, there are a few studies that distinguish between these two types of interventions by government. The difference between the two types of interventions is briefly discussed next.

8.4.2.1 Real sector interventions: Price controls and subsidies

With a dependency on agricultural products in many African countries, the impact of crop prices on real incomes by sector and income class is enormous. Because of the economic significance of agricultural products, maintaining reasonable stability in agricultural prices contributes directly to political stability. “Nothing is more unsettling politically than rapid shifts in real income and wealth among large sectors of the population” (Timmer, 1989:24). Government price interventions can eliminate at least one important cause of price instability by stabilising prices for agricultural products. Continuous market interventions and price

controls have an impact on the development of a private marketing sector. Farmers need this dynamic type of intervention as it provides them with information about what to produce and how profitable it will be (Timmer, 1989). Furthermore, economic growth is affected by the level and stability of price incentives to farmers, which stimulate growth in output and rural incomes. Low and stable consumer prices keep real wages low, thus stimulating investment, industrial output and exports (Timmer, 1989).

8.4.2.2 Agricultural finance interventions: Financial sector

Agricultural finance interventions involve government intervention in the form of subsidised targeted credit for agricultural development (Yaron, 1996). Intervention by government through the financial sector differs by product/services and by institutional arrangements. Specific sets of laws in financial sector intervention govern commercial banks, state-owned development banks and other financial service providers (De Klerk *et al.*, 2013). As previously discussed in Section 8.3, government intervention for agricultural finance purpose usually takes place through state-owned development banks. However, there is a general rule that state-owned rural financial institutions should not receive special privileges that create unfair competition (Klein *et al.*, 1999) as this may lead to unnecessary government failures.

8.5 THE NAMIBIAN CASE

Agricultural production in Namibia has always been heavily dependent on rainfall (rather than irrigation) and is therefore an inherently risky activity (see Figure 8.1 below).

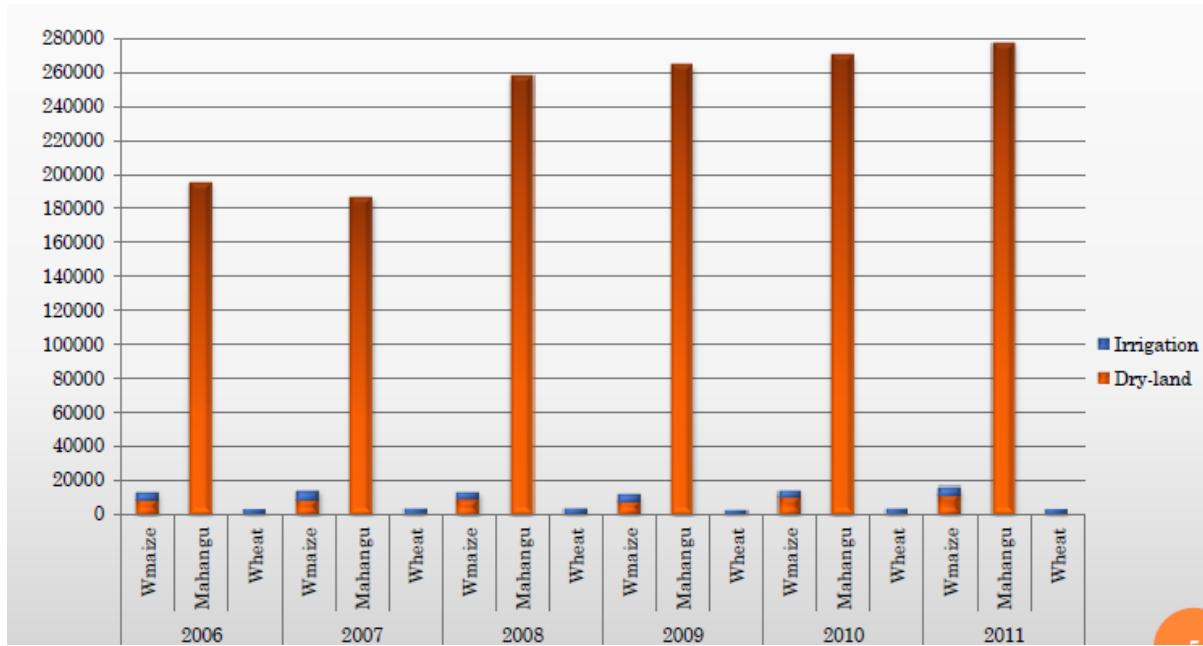


Figure 8.1: Crop production status: Area planted (ha)

Source: Lucas (2012)

Namibia's potential for agriculture is severely limited due to climatic and soil factors (Schmokel, 1985). The main food crops grown in Namibia are millet (also known as mahangu) and maize. Other food crops include groundnuts, wheat and sunflowers. In terms of livestock, the main agricultural output in Namibia is beef cattle, sheep and goats, which are produced on commercial and communal farms. During the past 10 years, agricultural output has been seriously constrained by recurring drought, floods, locusts, insects and worm invasions. The MAWF has implemented initiatives geared towards improving food production, including the diversification of crop production to bring about improved nutritional status in the country (World Health Organization Africa, 2014). These initiatives are discussed below.

One of the strategies (in order to attain national objectives) by government is to encourage Agribank to provide both financial and technical assistance to support its agricultural development efforts (MAWF, 1995).

8.5.1 Agricultural Bank of Namibia

The mission of Agribank is to promote agriculture and its related activities through affordable and sustainable financial solutions towards socioeconomic development in Namibia. It serves various clients such as commercial farmers, communal farmers, emerging commercial and resettled farmers, cooperative societies, companies and partnerships, individuals, trustees of trusts and control boards and provides different types of loans (Agribank, 2013).

In conjunction with the MAWF, Agribank offers certain loans under special schemes to farmers to improve their livelihoods. These schemes are government subsidised and are offered with favourable conditions. Favourable conditions include low interest rates. For example, interest rates are determined by the cost of funding rather than by the market prime interest rates. Furthermore, the area (whether it is a communal area or a commercial area) also determines the interest rate charged for farmers because there is an emphasis on trying to stimulate production in the communal areas²⁵.

In cases where farmers are expected to provide collateral as security, this security is pledged by way of farmers providing their birth certificates, their identity documents, proof of income for those who have an income, balance sheets and collateral for those who can afford to provide collateral. Those who have been backed by the government (in different schemes) are being treated differently because Agribank liaises with the government to provide collateral, for example for farmers farming specifically on the Green Scheme farms, but the others provide their own collateral. The 'own collateral' preferred by Agribank includes mortgage collateral, be it a house or any form of fixed property that has a title deed in the borrower's name and can be used to register the bond. In addition, fixed investments, for example 32-days-notice accounts or any other fixed investment with commercial banks, can be used by the bank in case of default (P17, 85:85).

The following programmes/loan schemes are offered by Agribank, with some of them introduced as far back as 1992 in terms of Cabinet Resolution CAB 92 (Agribank 2011).

²⁵ This information is from interviews conducted at Agribank

8.5.1.1 Post-settlement support funds

In terms of a Memorandum of Understanding signed in 2009, Agribank established post-settlement support funds for resettled farmers to enable them to enhance their agricultural productivity. Resettled farmers are regarded as previously disadvantaged farmers arising from colonial injustices in land distribution. The Namibian government buys farms from commercial farmers on a willing seller, willing buyer basis and allocates them to previously disadvantaged farmers (Ministry of Land and Resettlement, 2013). The post-settlement support funds allow for a co-financing agreement with Agribank regarding post-settlement support to resettled farmers that led to the forming of a post-settlement support fund of N\$30 million. By 2015, the Ministry had acquired a total of nine farms within the Khomas Region, and a total of 34 families had been resettled. Officially introduced in 2014, the resettlement financing support programmes cover the Kharas, Otjozondjupa, Erongo and Khomas regions with the intention to replicate the initiative to all the regions in the country. The maximum loan amount is limited to N\$200 000 per farmer, and by 2015, more than 350 loans had been disbursed to resettlement farmers country-wide (Resettled farmers receive loans, 2015).

8.5.1.2 Green Scheme

The government of the Republic of Namibia, in terms of Cabinet Decision No. 18th/06.08.02/004 (MAWF, 2008), approved an amount of N\$1 billion to be made available for investment in the agricultural sector of Namibia over a period of 10 years. A model was adopted whereby a commercial irrigation farming enterprise was tied to a settlement of small-scale irrigation farming units in a joint enterprise. This arrangement was aimed at inviting the private sector to invest in the remote and underdeveloped areas, thus building local capacity in terms of production and marketing management (MAWF, 2008). In this context, commercial farming enterprises are tied to a settlement of small-scale farming (Green Scheme) units in a joint enterprise. The idea is for the latter to learn by watching the commercial farmers, thereby building local capacity in terms of production and marketing management. In addition to training, the commercial farmers serve as service providers to the small-scale farmers by providing them with the necessary farm equipment, transport and marketing services at a cost (African Development Bank, 2004).

AGRIBUSDEV was established in 2011 as a state-owned company. The objective of the agency is to monitor and create an ideal environment for the achievement of the Green Scheme objectives as circumscribed by the Green Scheme policy of 2003. Eleven Green Scheme projects were established by the MAWF, namely 1) Etunda Green Scheme Irrigation Project; 2) Musese Green Scheme Irrigation Project; 3) Sikondo Green Scheme Irrigation Project; 4) Uvhungu-Vhungu Green Scheme Irrigation Project; 5) Mashare Green Scheme Irrigation Project; 6) Ndonga Linena Green Scheme Irrigation Project; 7) Shitemo Green Scheme Irrigation Project; 8) Shadikongoro Green Scheme Irrigation Project; 9) Kalimbeza Rice Green Scheme Irrigation Project; 10) Hardap Green Scheme Irrigation Project; and 11) Orange River Green Scheme Irrigation Project (AGRIBUSDEV, 2015).

In 2014, Agribank disbursed N\$4.5 million in total for some of the Green Scheme projects as follows: Etunda Irrigation Project received N\$600 000, Ndonga Linena Irrigation Project received N\$1.9 million and Orange River Irrigation Project received N\$2 million. Total Green Scheme project disbursements in 2014 showed an increase of 23% in comparison with the 2012/13 financial year. This was despite the fall in allocation to Etunda Green Scheme Project by 83% due to poor crop yields by small-scale farmers in the project (Agribank, 2014).

Farmers in Green Scheme projects fall under the National Agricultural Credit Programme whereby production loans, livestock loans and infrastructure loans are provided. The provision of these loans aims to maximise agricultural productivity, ensure surplus production and contribute towards food security.

The types of loans and classifications provided to all types of farmers are as follows:

- (i) Short-term loans: repayable between 1 and 5 years.
 - Production loans – repayable within one year but can be granted as a five-year revolving facility.
 - Horticulture production loans – repayable within one year.
 - Green Scheme loans – repayable within one year.

(ii) Medium-term loans: repayable between 5 and 10 years.

- Infrastructure loans – repayable within a maximum of 10 years. For vehicle and tractor loans, the repayment period in the case of the purchase of a new tractor is 10 years and for a second-hand vehicle, it is 5 years.
- Improvement loans – these are granted to acquire equipment for improving or repairing dilapidated infrastructure and implements such as irrigation equipment, boreholes, windmills, dams, water pumps and pipes, hammer mills, mahangu threshers, silos, and so forth.

(iii) Long-term loans: repayable between 10 and 25 years.

- Alternative energy solar farm systems – used for purchasing and installation of alternative energy to contribute towards sustained productivity.
- Loans for the construction of labourers' houses – available to commercial farmers for the construction of labourers' houses of an acceptable standard at 4% interest rate.
- Loans for the purchase of farmland – for example, the purchase of a pig farm. Loans are made available for the purchase of farmland and/or additional land for agriculture-related activities.
- Loan consolidation facility – several existing loans are combined into a new bigger loan from a single lender that is used to pay off the balances of the existing loans. Clients should have a loan facility with Agribank to qualify and should offer some form of collateral such as a house, a farm and/or other acceptable collateral.

All the loans are granted against security of fixed property, investment or any other acceptable form of security. Access to agricultural credit (for different types of loans to both communal and commercial farmers) from Agribank is shown in Table 8.1 below:

Table 8.1: Total loans disbursed by Agribank

Year(s)	Amount (N\$)	Number of farmers who obtained credit
2012	195 731 015	1 040
2013	245 189 468	970
2014	244 935 918	842

Source: Agribank (2012; 2013; 2014)

As much as efforts are made and despite the fact that most of the loans provided are subsidised by the government, evidence from Table 8.1 above indicates that the total number of farmers being financed by Agribank has declined every year from 2012 to 2014. This is attributed to economic and financial security problems experienced in the country such as drought in 2012 and 2013 and a lack of collateral (Agribank, 2014). The drought has also resulted in more people being employed by Green Scheme farmers on a temporary basis than on a permanent basis (see figures 8.3 and 8.4 on p. 135).

8.5.1.3 Drought Relief Scheme

Because Namibia is faced with severe recurring droughts with potentially devastating effects on food security and livelihood of farmers in certain areas, the Drought Relief Scheme was introduced by government in 2015 and is operated by Agribank. Agribank has developed four drought relief facilities under this scheme in order to mitigate the effects of the drought:

1. Interest holiday for one year: This was established to give a repayment break to Agribank clients whose loans became due from 1 January 2015 to 31 December 2015.
2. Ring fencing of arrears and suspension of penalty interest: This offers amnesty to clients to repay their arrears, essentially restructuring the debts. This is done in order to ensure that clients meet their debt obligations.

3. Production loan facilities: The purpose of this facility is to enable farmers to cover the day-to-day costs of production inputs such as seeds, fertilisers, herbicides, pesticides, vaccines, fuel, oil costs, wages and licks.
4. Water and infrastructure improvement: This facility enables farmers to upgrade water and other infrastructure to sustain the farming operation throughout the drought crisis. For the third and fourth facilities, normal Agribank collateral conditions (mentioned above) apply in order to gain access to these loans (Johannes, 2015).

8.5.2 Agricultural Marketing and Trade Agency

Because of a lack of access to markets for small- and medium-scale farmers in Namibia, the government through the MAWF established AMTA as a specialised agency of the MAWF to coordinate and manage the marketing and trading of agricultural produce in Namibia. AMTA aims to create a market for the produce of the small- and medium-scale farmers involved in horticultural farming. AMTA is a trading platform whereby infrastructure such as floor space is provided to store the produce of farmers (both in Green Scheme projects and individual), and cooling facilities are provided to extend the shelf life of produce such as cabbages. Agents are recruited to sell on behalf of the farmers once an agreement (between farmers and agents) is reached on the price to sell the produce at (AMTA, s.a.).

The AMTA has enlisted six marketing agents who source and market the produce on behalf of the farmers; however, three of the agents' contracts were terminated during the period under review because they did not meet the market requirements. AMTA has been able to obtain supply contracts with two major retailer fresh produce distributors. These are Freshmark, which supplies Shoprite and Checkers and also has a supply contract with Nature Food Valley, which supplies Pick n Pay (AMTA, s.a.).

8.5.3 Dry Land Crop Production Programme

In addition to the loans provided by Agribank, in 2007, the government made available an amount of N\$5 million for the Dry Land Crop Production Programme. The MAWF through the Department of Extension and Engineering Services is responsible for the implementation of the Dry Land Crop Production Programme. The aim is to support the majority of

households who depend on rain-fed crop farming for subsistence and incomes from surplus. The MAWF prepares a budget proposal annually and submits it to the Ministry of Finance for funding. The Ministry of Finance makes funds available yearly for the execution of the Dry Land Crop Production Programme. Under this programme, the MAWF provides four types of services (MAWF, 2010):

- Provision of ploughing services: Government provides ploughing services to the target group through government-owned tractors and through employing the services of private tractor owners. Every participant has three hectares ploughed at a subsidised rate between government and the beneficiary. The level of subsidy is determined depending on the prices and resources available to government for this programme.
- Provision of improved seeds: Government provides improved seeds to the target group at subsidised rates determined from time to time depending on the prevailing prices and resources available to government for this programme. Training to improve production is provided to farmers.
- Provision of fertilisers: It has been observed that soils in North-East and Central Namibia are predominantly sandy, very low in nutrients, organic material and water-holding capacity, neutral to slightly acidic, susceptible to wind erosion and prone to compaction. Government therefore provides fertilisers that address the needs of the different types of soil to the target group at subsidised rates to be determined from time to time depending on the prevailing prices and resources available to government.
- Provision of weeding services: Government provides weeding services to target beneficiaries on a subsidised basis at rates to be determined from time to time, depending on the prevailing prices and resources available to government. These services are provided at a subsidised rate.

8.5.4 Conservation Agriculture Programme

It has been observed that the smallholder sector in Namibia is vulnerable to climate change/variability and that rainfall variability is likely to increase, resulting in a higher frequency and intensity of extreme events such as droughts and floods. A new way of farming known as conservation agriculture was established to counter and reverse land degradation and to adapt to climate change variability while ensuring national food security. The programme targets all crop producers in Namibia, encouraging them to adapt conservation agriculture practices. Assistance is provided by government in the form of a subsidy. Under this programme, government has assigned roles and responsibilities to the different agents, some of which are from the Ministry of Finance, to ensure that the needed subsidies and bank loans are available and that there is better access to farm inputs, machinery and implements for small-scale farmers. Agribank has to ensure easy access to loans for organised and individual farmers (MAWF, 2015).

8.6 MAJOR ISSUES WITH THE INTERVENTIONS

The abovementioned interventions have brought about both negative and positive issues. The various interventions by government have achieved some measurable success. Firstly, Agribank's loan book has increased by 9% from N\$1.8 billion in 2012/13 to N\$2.0 billion in 2013/14. This rise is attributed to the growing number of farms purchased by previously disadvantaged Namibians as well as an increase in improvement loans. Supporting the upward trend were the loan amounts disbursed per beneficiary in respect of the post-settlement support funds, which rose from N\$65 000 per loan in 2012/13 to N\$2 000 000 per loan in 2013/14. These loans have helped resettled farmers to improve their productivity and thus contribute to food production in the country (Agribank, 2014). (See the increment in productivity, although at a very slow pace, especially in wheat production, from 2006 to 2011 in Figure 8.2.)

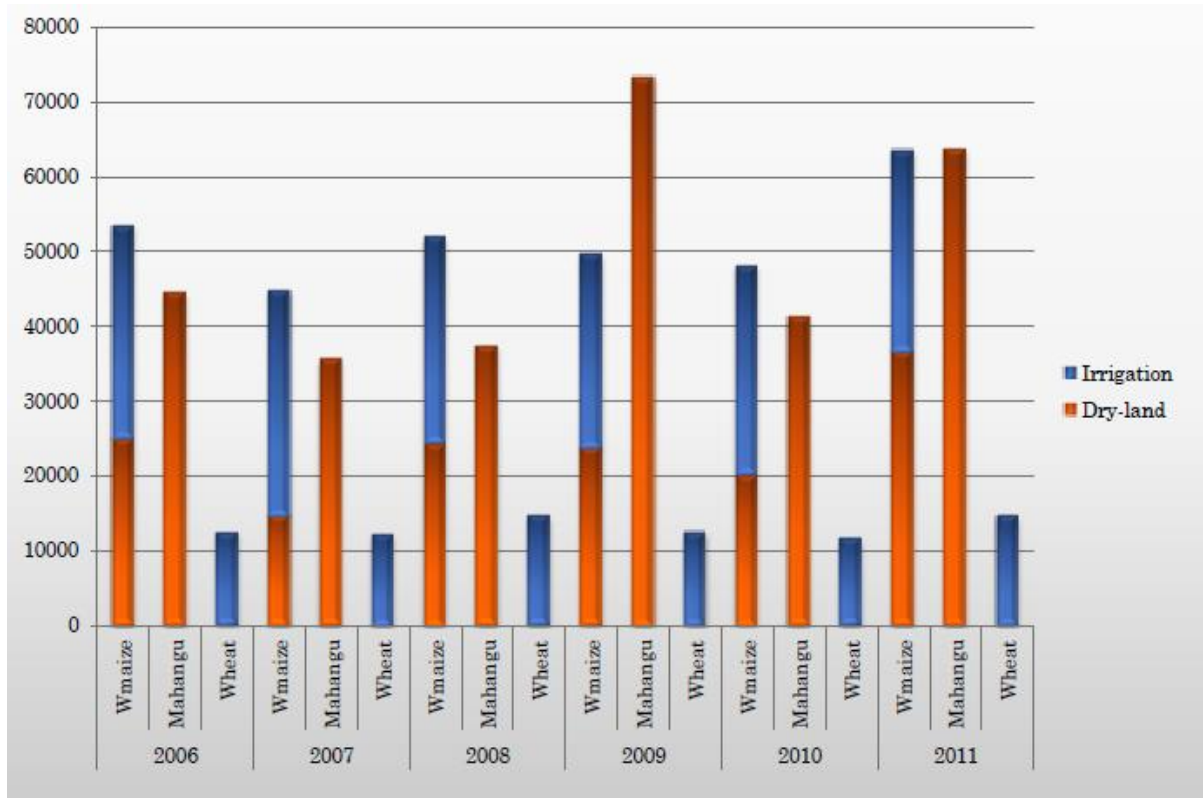


Figure 8.2: Crop production status: Total production (ton)

Source: Lucas (2012)

Both the post-settlement support funds and the Green Scheme projects have absorbed many unemployed people (and improved their quality of life) in rural areas who otherwise would not have been absorbed by an increasingly sophisticated labour market that demands readily honed skills and experience (see figures 8.3 and 8.4 below for an increase in employment between 2014/15 and 2015/16).

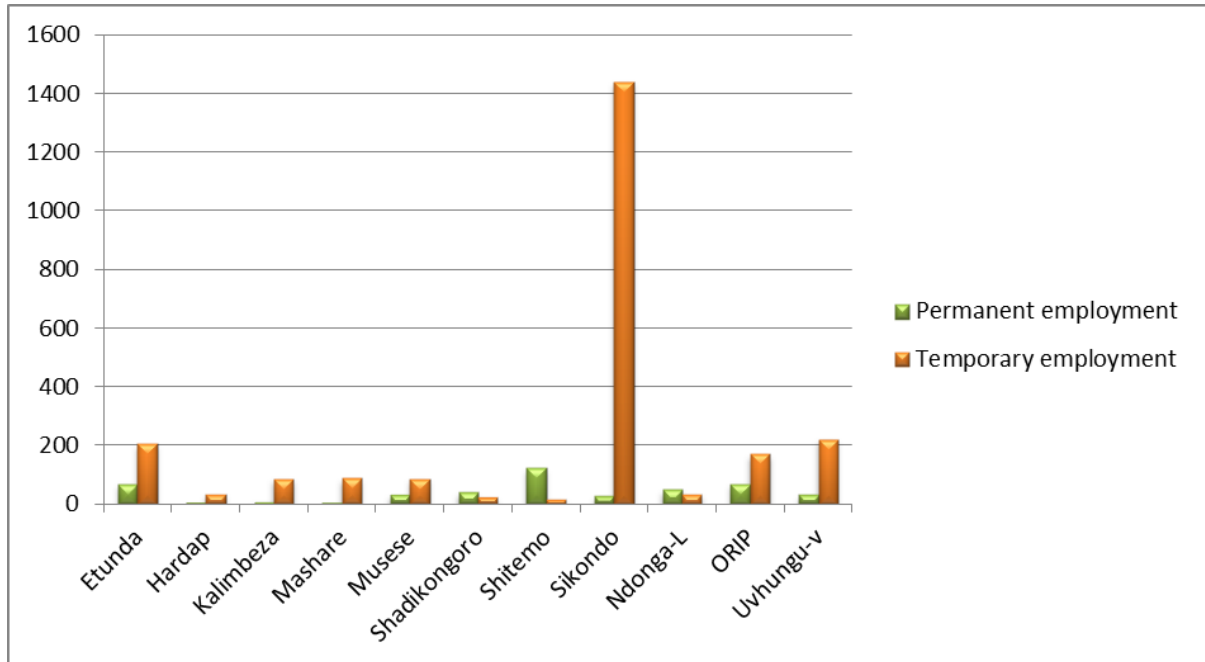


Figure 8.3: Employment created by the various Green Scheme projects in 2014/15

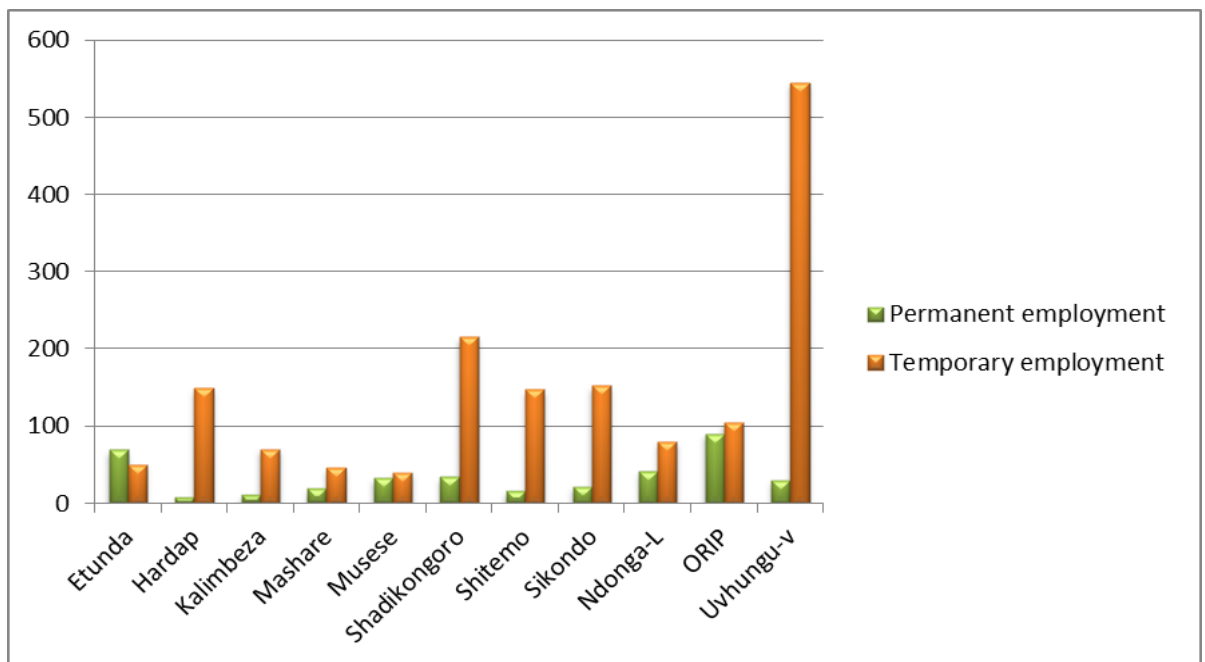


Figure 8.4: Employment created by the various Green Scheme projects in 2015/16

Source: Titus (2016)

Apart from access to finance, increased productivity and employment creation, sales volumes increased from 269 metric ton in 2013/14 to 863 metric ton in 2015 as a result of AMTA's establishment, which means that revenue collection for farmers has shown significant growth. This significant growth has been attributed to the fact that most farmers are now using AMTA to market their produce as opposed to 2013/14 when the hubs opened their doors. This has positively impacted on the incomes of farmers who are selling their produce through the hubs (AMTA, s.a.).

However, the problems of agricultural finance through these interventions still persist. Small-scale farmers find it hard to take advantage of the interventions because they lack adequate collateral to participate in the schemes (Amadhila & Ikhide, 2016).

The drought conditions have negatively impacted clients' ability to service their debt from different types of loans provided by Agribank, and as a result, the number of permanent jobs created in the various schemes supported by Agribank has kept on declining: 3 210 in 2012, 2 910 in 2014 and 2 526 in 2014 (Agribank, 2012; 2013; 2014). Hay (1988) provides evidence that during 1981/82, the rains failed in Botswana and this had a negative impact on agricultural output and employment. Because of the low agricultural output as a result of the low rainfall, incomes derived from agricultural output also declined and wage employment opportunities were lost or fell. Rural wage employment fell because these opportunities were mostly in agriculture or dependent on it. In the Namibian case, the loss of employment and incomes due to drought resulted in loan default.

Despite the increase in sales volumes because of AMTA's establishment, there is a concern that AMTA has not addressed the issue of pricing. Farmers buy their inputs at high prices and these prices are non-negotiable. However, the prices that they receive for their produce could be lower due to excess produce in the market.

With agriculture, the input costs do not change, but the price we get for our produce changes. For example, if our input costs are N\$70 per hectare then sometimes our prices fetch N\$70 to N\$75 per hectare. However, two weeks later the exact same crop can fetch as little as N\$45 per hectare (Reliable prices crucial for horticulturists, 2015:1).

Assuncal, Hemsley and Gandour (2015) refer to low output price as price risk. They argue that price risk is a major concern for both farmers and policymakers: Unmanaged risks can not only lead to low income for farmers but can also affect the agricultural banking sector, contributing to a rural poverty trap. In the works of Jaleta and Gardebroek (2007) in which they explain the relative bargaining power of tomato buyers and sellers by regressing the relative deviation between initial price quotes and the final trading price on a set of economic variables using farm-gate transaction data from central Ethiopia, they argue that one possible reason for the uncertainty of farmers' prices is the fluctuating wholesale price at the central vegetable market. Lack of accurate central market information and the perishable nature of vegetables affect farmers' valuation for their products and their bargaining power. When farmers cannot wait for better prices by storing their harvest, they are forced to accept a lower price to avoid the risk of not selling. The resulting low vegetable prices have a direct impact on the next household resource allocation decisions on food and cash crop production. Jaleta and Gardebroek (2007) therefore argue that transmitting the daily vegetable wholesale price information to the potential vegetable-producing areas via radio or internet could help both vegetable producers and buyers to have up-to-date knowledge of the central market prices. Establishing and supporting farmers' vegetable marketing cooperative unions could also help to bridge the price information gap, facilitate the price information transmission process and, when there is a shortage of buyers at the farm-gate, assist farmers in assembling and transporting their vegetable products to the central market (see also Svensson & Yanagizawa, 2009).

Finally, under the Conservation Agriculture Programme, good opportunities for improved availability of ripping services exist due to numerous tractors being in private hands (though not having ripping implements yet) and opportunities for financing new tractors and equipment. However, there has been a serious lack of tractors for the provision of ripping services. In addition, high running costs, problems with drivers and competition from government tractors pose threats to ripping service provision by the private sector (Von Hase, 2013).

8.7 COMPARISON OF BRAZIL AND INDONESIA TO NAMIBIA – LESSONS FROM SUCCESSFUL INTERVENTIONS IN THE AGRICULTURAL SECTOR

8.7.1 Why compare Latin American and South-East Asian countries to Namibia?

The recent research work in Latin America and South-East Asia and their respectable rates of agricultural productivity growth in the recent past (Duff & Padila, 2015) gave reason for this paper to draw a comparison between selected features of both regions' government intervention in the funding of agriculture by financial institutions and that of Namibia and government intervention in lending to agriculture. Table 8.2 below provides some indicators that gave reason for a comparison between the three countries under discussion. Just like Namibia, both Brazil and Indonesia are classified as developing countries. The GDP annual rates for all three countries fell between 2010 and 2013. Furthermore, the gross national income (GNI) for Namibia and Brazil kept increasing while for Indonesia it fluctuated. Most notable is that while the percentage of people employed in the agricultural sector has fluctuated between 2005 and 2013, the Crop Production Index (CPI) has done relatively well although declining a little between 2010 and 2013 (this is attributed to the drought conditions in the country). In comparison, although the percentage of people employed in the agricultural sector in Indonesia has been on the decline, the CPI has been on the increase between 2005 and 2013.

Table 8.2: Selected indicators between Namibia, Brazil and Indonesia

Indicators	Namibia			Brazil			Indonesia		
	2005	2010	2013	2005	2010	2013	2005	2010	2013
GDP annual rates (%)	2.5	6	4.4	5.8	7.5	2.5	5.7	6.2	5.8
GNI per capita (US\$)	3 526.8	4 876.7	5 408.0	4 602.6	10 780.0	11 002.9	1 211.5	2 863.9	1 273.5
Employment in the agricultural sector (%)	29.9	16.3	27.4	17.0	15.3	21.4	44.0	38.3	35.9
CPI	94.7	108.8	107.4	98	126.6	140.3	98.5	123.5	136.6

Source: The World Bank Group²⁶ (2016); United Nations Statistics Division (2016)

8.7.2 Brazil

In the 1950s, the increasing failings of agriculture prompted governments into action and a series of measures was put in place to encourage the modernisation of estates and commercial farms in Latin America. Among such measures were subsidised credit for the purchase of agricultural machinery and equipment, for the acquisition of fertilisers and improved seed varieties and for the delivery of technical assistance programmes (Kay, 2002). During the 1960s, resources for credit made up a large part of externally funded agricultural programmes in Latin America. This assistance came from the Agency for International Development, the Inter-American Development Bank and the World Bank Group (Adams, 1971).

One particular country from Latin America that has succeeded in transforming its agriculture, particularly for smallholder farmers, is Brazil. Market failures and chronic rural poverty in

²⁶ Only the CPI data were sourced from the World Bank Group website.

Brazil have prompted government intervention in domestic food markets to connect large predictable markets to smallholder production. One way of intervention took the form of structured demand. Structured demand connects large predictable markets such as provision of food to schools and hospitals to create a market for smallholder farmers. The idea stems from the fact that in many rural areas of the developing world, there is a narrow demand with limited marketing options and a lack of competition to purchase from smallholder farmers. These circumstances lead to uncertainty for the farmers as to what price they should receive in the market for their produce, unfairly low purchase prices from private traders and few outlets for new varieties of crops. The government thus intervened through the creation of the Food Acquisition Programme (PAA) and the National School Feeding Programme (PNAE). The most innovative mode by the PAA was the one that allowed for the purchase of immediate delivery of produce to food-insecure populations identified in nurseries, schools public hospitals and so forth. Payment is made after produce has been delivered. The PNAE, in contrast, provides meals prepared with the produce from smallholder farmers to schools in Brazil. In the end, the main objectives of these interventions was to make sure that there was no surplus production that lay around without a market (Veras Soares, Nehring, Schwengber, Rodrigues, Lambais, Balaban, Jones & Galante, 2013). The consequences were an increase in the market. Particularly the number of municipalities where schools received food from the PAA increased from 597 in 2009 to 815 in 2012. This is an important initiative that the Namibian government could learn from, given the issue of excess produce and thus low output prices currently experienced in the market.

There were, however, challenges with these initiatives such as timely and efficient payment of farmers after delivery of their produce. For this reason, the PAA introduced a debit card system to ensure that bank transfers were made as soon as produce had been delivered. In contrast to the PAA system in Brazil, the Namibian AMTA has two marketing systems, namely the wholesale system and the commission system. With the wholesale system, the producers are paid after delivering the produce and this payment is done via electronic transfer within seven days. With the commission system, the producers are supposed to be paid after the produce is sold and the agent's and market's commissions are deducted. However, in order to boost producers' trust in the market, AMTA has made a decision to pay

all producers within seven days regardless of the marketing system used. The main reason for AMTA to pay within seven days (usually done within 3–5 working day) is to minimise transaction costs. If AMTA is to pay every producer as he or she delivers, the cost will be high and will have to be transferred to the price of the final selling product. Since AMTA is effectively using a wholesale system, price determination of farmers' produce is done taking into account the local supply of produce in the local market as well as the imported produce. The price is negotiated with the producers (and not imposed). The challenge, however, is a defined margin of mark-up with wholesaling. As a result, AMTA end up having to set a fixed price for the week that may not be responsive to price changes or demand/supply in the market since AMTA is only allowed to mark up 12% on cost price. The upside is that the producers are guaranteed payment for everything that they deliver (Enkono, 2016).

Other ways in which Banco de Brasil, a bank in Brazil, promoted agricultural production in Brazil and increased access to finance were through the provision of unsubsidised loans at market interest rates against a note issued by the farmers. This note works in such a way that it commits farmers to delivering a specified amount of product or an equivalent payment on a future date to a buyer. With this method of financing, farmers are more likely to invest, improve their technology or seek out new buyers to deliver their products to. This in turn allows farmers to make a leap forward in productivity by adopting upgrades. If farmers have a standing source of technical assistance, they become more attractive to buyers, in turn improving their income and ultimately increasing their access to financing (Chalmers, Wenner, Tiffen & Galvez, 2006). This has not only allowed many smallholder farmers to gain access to credit without collateral (promoting borrowing among farmers) but has also increased agricultural production (Alcantara, Enrique, Enrique, Corrales & Leonela, 2006).

This differs greatly from the Namibian context where limited smallholder farmers who have access to credit are mostly employed in government Green Scheme projects and provided with subsidised loans through Agribank. Smallholder farmers outside Green Scheme projects quite simply do not have access to credit because they do not have collateral to offer. The problem is that it is a challenge to Agribank to offer loans without collateral. When asked about what Agribank could still do to support smallholder farmers in Namibia, in other words areas for improvement, managers at Agribank offered the following:

For us is to design a system or to come up with a strategy on how to finance small-scale farmers who do not have collateral and to base our lending on the cash flow.

(P18, 99:99)

Working capital loans in Brazil and other Latin American countries are the predominant type of credit disbursed in Latin America with flexible payment terms matched to agricultural production cycles (a personal guarantor) (IFC, 2014) as compared to Agribank where repayment of loans is based on the number of years predetermined by the bank, depending on the type of loan that the farmer takes out (Agribank, s.a.). If, for example, a farmer takes out a production/horticultural loan at Agribank, this loan needs to be repaid within one year; however, if the farmer does not have good harvests, repaying these loans becomes a problem. The number of years that one is given to pay back a loan most of the time does not match production cycles. For example, a production loan needs to be paid back within a year. However, if there is not a good harvest that particular year, repayment of the loan can be affected.

It is important to provide specialised training to credit officers managing agricultural loans, regardless of the individual's professional background (IFC, 2014), in order to allow success of interventions set up by government. Lending expertise in Namibia is quite a challenge (see Amadhila & Ikhida, 2016). As much as staff at Agribank pointed out that they received training through the Southern African Development Community at the DFI forums, perhaps the content of what is included in the training should be re-examined in terms of including specific topics such as lending to agriculture. The staff interviewed acknowledged that this training did not necessarily focus on agricultural finance but rather focused on financing development industries in general.

8.7.3 Indonesia

South-East Asian countries have much in common with Africa in terms of rich natural resources of productive farmland, forests and minerals and weaker human capital. Moreover, these countries have had to cope with periods of political instability and therefore South-East Asia provides a much more relevant model for comparison to Namibia than East Asia. The large East Asian countries such as Korea and Japan are less relevant because their large

economies and well-educated workforce hardly describe the characteristics of Africa (Boestel, Francks & Kim, 2013).

A specific country in South-East Asia that could be compared to Africa is Indonesia. Just like many countries in Africa, more than half the population of Indonesia is still defined as rural and a large proportion of rural people depend on farming for a living.

Along with overcoming land and water resources problems, the government of Indonesia invested heavily in irrigation and actions were taken such as increasing the quality of intensification, increasing cropping intensity, expanding planting area to cater for an increase in population, improving agriculture infrastructure and facilities (including improvement of irrigation networks) and improving food diversification. Eventually, in 2000 and 2001 there was sufficient rice with a surplus of more than two million ton. Depending on the source of water and the provision of irrigation facilities, land in Indonesia is classified as technical irrigation areas (3.4 million ha or 31%), semitechnical irrigation areas (1.12 million ha or 10%), simple irrigation areas (0.77 million ha or 7%), village irrigation areas (2.29 million ha or 21%), inland and tidal swamp areas (1.677 million ha or 15%) and rainfed areas (1.77 million ha or 16%) (Suprpto, 2002).

During the Asian financial crisis in mid-1997, the agricultural sector in Indonesia was heavily hit and as a result, the head count poverty rate rose from 17.6% to 23.4%. However, the Indonesian government has used a wide variety of policy instruments to achieve food sufficiency and price stability. Policy efforts in Indonesia have included fertiliser subsidies and agricultural credit subsidies. Although fertiliser subsidies fell in the early 1990s and had been entirely eliminated by 2000, they were reinstated in 2009 and had risen to Rp16 trillion from Rp357 billion, representing 30% of the entire agriculture budget in that year. Furthermore, government-financed purchases (price support) of rice afforded rice producers prices above what would have prevailed in the marketplace. A guaranteed price for rice producers in Indonesia stimulates farmers' output as it leads to a protected agricultural sector and securing of farmers' incomes. Furthermore, it provides a stronger domestic market for food security. Price incentives are a key stimulus for farmers to take risks and invest in high crop production outputs (Timmer, 1993). Verhaegen and Van Huylenbroeck (2001) reason

that price support reduces price uncertainty as compared with sometimes volatile markets. Furthermore, an important benefit of better price security is that farmers can better estimate their revenues for a given period (Verhaegen & Van Huylenbroeck, 2001).

In order to increase limited quantities of subsidised credit to farmers, policy efforts in the farm credit introduced the improved provision of formal sector credit through BRI and this has proven successful as it now accounts for a larger share of credit to the agricultural sector (Cervantes-Godoy & Dewbre, 2010). This move away from credit subsidy to market-determined credit allocation continued to focus on income expansion and poverty reduction, just like the credit subsidy approach. However, the difference between the two is that the formal market allocation approach makes the case for cost-effective alternatives, such as increased investment in rural infrastructure or in human development, unlike the credit subsidy allocation, which has failed in many countries as it pursued short-term objectives framed in terms of agricultural production gains rather than long-term objectives aimed at the sustained expansion of rural incomes (Yaron *et al.*, 1998). For example, in order to promote timely repayment of loans disbursed, BRI offered a monthly interest rebate on the original loan value. Staff incentives for better performance on extending and collecting loans were also offered (Yaron, 1994). The staff incentives for loan officers work in such a way that incentives are linked to the performance of the loan portfolio, so clients are monitored more closely than is usual. This move has not only allowed investment in human capital and rewards (monetary incentives and promotions) that are related to sound financial performance and sustainability of the institution but has also created innovative and flexible loan terms and conditions adapted to social, economic and cultural circumstances, such as monthly repayment schedules tailored to the clients' cash flow (see Yaron *et al.*, 1998).

There is evidence that loan recovery is a problem in Namibia as it leads to Agribank's reluctance to lend (see results section in Chapter 7 of this dissertation). However, Indonesia's BRI has provided a good example to show that rural finance can be profitable when it does not rely on subsidies as long as the government intervention is directed towards improving the legal and regulatory framework, adopting appropriate governance arrangements and having management principles and operating procedure for interventions that reflect a new and more promising approach to rural finance (Yaron *et al.*, 1998).

8.8 DISCUSSION AND CONCLUSION

The purpose of this paper was to review the specific government financial efforts to support farmers in Namibia while at the same time drawing lessons from Brazil and Indonesia. The efforts to finance agriculture in Namibia both in terms of real sector interventions and agricultural finance are laudable. However, there is still room for improvement, especially when it comes to the issues of pricing and the training of agricultural lenders. There is also a need to adopt innovative lending techniques that are suitable to agricultural finance, which will benefit financial institutions and farmers. These are some of the lessons to learn from other developing countries such as Brazil and Indonesia who have advanced agricultural sector productivity.

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Chapter 9

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND AREAS FOR FURTHER RESEARCH

9.1 SUMMARY

This research comprised a collection of essays that examined the issue of access to finance for agricultural SMEs in Namibia. In the first essay, the researcher sought to identify and explain the constraints to financing agriculture for agricultural SMEs among crop production farmers and Agribank. In the second essay, the researcher went on to identify the financing options for agricultural SMEs and to give reasons for the unfulfilled loan demand among agricultural SMEs. In the third essay, the magnitude of the agricultural SME finance gap and the causes of the gap were determined. The final essay compared government efforts to financing agriculture in Namibia to Brazil and Indonesia in order to draw some lessons.

The research used primary data, adopting a qualitative methodology using semi-structured interviews. In addition, secondary information from selected financial institutions and relevant organisations' websites, reports, booklets and newspaper articles was consulted to support the analysis. This method provided an in-depth understanding of small- and medium-scale enterprises' access to agricultural finance. For example, the study used illustrative quotes that highlighted key issues, which makes this study more exploratory than previous studies.

Apart from providing valuable empirical knowledge needed not only for the growth and development of the sector but most importantly for improving agricultural finance and initiating a new dimension to the debate and controversies regarding access to information on agricultural financial services for independent farmers as compared to Green Scheme farmers, the study also contributes to the body of knowledge relating to SMEs in the agricultural sector by focusing on the financial aspect both from the supply and the demand side. Furthermore, previous studies that have focused on small-scale farmers have subjected farmers' access to finance to rural credit markets, in other words informal moneylenders, using secondary information with a quantitative approach to collect and analyse the data

(Aleem, 1990; Hoff & Stiglitz, 1990; Obeng, 2008). This study focused on formal financial institutions such as development financial institutions and banks using primary data with a qualitative approach in order to get to the grassroots and gain an in-depth understanding.

The results of the study can be summarised as follows:

Constraints to financing agriculture arise as a result of market imperfections. These are lack of timely response to farmers, lack of access to markets and lack of access to land that can be used as collateral, among others. This study shows that these market imperfections are more systemic than acknowledged in mainstream economics. The findings suggest that instead of just promoting smallholder agriculture, fixing market imperfections first may be the best solution.

With regard to financing options for agricultural SMEs, the financing of agriculture is a major bottleneck in expanding agricultural production. There is a limited provision of financial institutions in support of agriculture. The findings prove that on the supply side, although financial institutions exist, very few are interested in financing agriculture, which by implication means that there is a lack of financial resources for agricultural production on the demand side. On the demand side, many farmers are not aware of the financing options available for agriculture.

There is confirmation that demand outstrips supply (for three consecutive years). Farmers default on their loans and provide insufficient information to lenders, which limit Agribank's supply of loans. Furthermore, the lack of financial institution in the country also causes a financial gap. Farmers outside the Green Scheme projects do not engage in borrowing because they are not aware of financial services in the country, pointing to poor marketing structures by Agribank and imperfections in the financial market.

The study made a comparison of the government of Namibia's efforts towards agricultural finance for agricultural SMEs to efforts in Latin America and South-East Asia. The government of Namibia has intervened in the credit market both through agricultural finance and real sector interventions. However, there is still room for improvement, especially when

it comes to the issue of payment of appropriate prices to farmers and acquisition of skills by agricultural lenders.

9.2. CONCLUSIONS

The financing constraints identified in Chapter 5 have confirmed that many of the constraints presented in the results section occur as a result of other constraints. The researcher argues that finance is a binding constraint. The top five issues identified on the demand-side are a lack of collateral, bank rules and regulations, insufficient capital, poor understanding among loan officers and Bank paperwork and bureaucracy paperwork and bureaucracy. On the supply-side, the issue of lack of collateral makes up the major constraint among the interviews conducted at Agribank. Finance is a binding constraint. The paper supports previous literature that fixing market imperfections may be the best solution.

In Chapter 6, the study investigated the financing options for agricultural SMEs from both the demand and the supply-perspectives and the reasons for not financing agriculture. The findings of this paper confirm and expand on previous studies that financial resources are lacking for agricultural small and medium-scale farmers, particularly those in communal areas. One possible reason why farmers are unaware of any financing options is attributed to the fact that there are few financial institutions in the country and information on them is not available.

Chapter 7 confirms that demand outstrips supply. The mismatch between demand and supply is caused by loan default and insufficient information provided by farmers on the supply-side. On the demand-side, the inability of farmers to meet financing requirements and low supply of funds causes a gap. While there are farmers outside the green-schemes who do not borrow as they are not well informed about financial services, the researcher argues that there is no gap in this regard but rather a lack of information on the availability of financial services in the country.

Finally in Chapter 8, the study reviewed countries (Brazil and Indonesia) that have achieved high agricultural output through reliance on government sponsored financial institutions to

finance agriculture like in Namibia. There is a lesson for adopting innovative lending techniques that are suitable to agricultural finance which will benefit financial institutions and farmers. Namibia lacks agricultural financing expertise, and there is poor access to markets for farmers to improve their farming practices. There is a need to learn from the examples from the Brazilian and Indonesian governments who have adopted innovative lending techniques suitable to agricultural activities in order to promote agricultural activities in these countries.

In the findings of the all four empirical essays, there is clear evidence that there is indeed a market failure in the loan market and that there is a need for government intervention and collaboration by both the public and the private sector. Fixing market imperfections such as adopting innovative lending techniques to suit all types of farmers may be the best solution in promoting access to finance and increasing food production.

9.3 RECOMMENDATIONS

This dissertation recommends some interventions necessary for the improvement of agricultural finance. Interventions should be directed at reducing the bottlenecks that prevent a number of SMEs, particularly in the agricultural sector, from accessing finance. Addressing the bottlenecks may incentivise financial institutions to enter this largely untapped segment (agricultural SMEs) of the agricultural industry. Of specific concern are the following points:

1. Interventions should holistically address both the demand- and supply-side constraints.
2. Priority areas should include market inefficiencies such as bureaucracy and enforcing contracts.
3. Financial institutions should invest more in training of staff to understand the unique nature of agricultural lending practices.
4. Examples from other countries such as Bangladesh, Australia, Indonesia, Kenya Uganda and Brazil should be studied on how they have mitigated their risks in financing agriculture and promoting access to markets.

5. Products that would address constraints brought about by a lack of collateral should be developed in order to ensure affordability.
6. Departments for lending to small-scale farmers that would target constraints, particularly for farmers in communal areas, should be created.
7. Agricultural research and development should be heavily invested in to make sure that the country's institutions and infrastructure are conducive to the success of farmers.
8. Guaranteed minimum prices should be fixed by government at the farm-gate markets to ensure that farmers' losses resulting from unforeseen events such as the incessant drought in Namibia do not interfere with the welfare of farmers. This will boost the ability of farmers to repay loans and enhance lending by financial institutions. The example of pricing in Indonesia is a good lesson regarding this issue.

The key issue is to ensure access to finance to as many individuals as possible and to allow Namibia to move up the ranks again in terms of individuals with access to credit, given the latest information that the Doing Business 2015 report section on 'Getting Credit' ranked Namibia 61st out of 189 economies, down from 55th in 2014 (Phiri & Ojiri, 2015).

Sometimes credit interventions in agriculture do not take into account other factors, for example the availability of water, and this is a mistake because agriculture is one activity that depends heavily on the availability of water and having access to funds without having access to water is as good as having nothing. The scarcity of water will lead to crop failures, poor profits and perhaps to loan default. For an arid country such as Namibia, there is a need to learn from examples from countries such as Indonesia. As discussed earlier, along with overcoming land and water resources problems, the government in Indonesia invested heavily in irrigation and actions were taken such as increasing the quality of intensification, increasing cropping intensity, expanding planting area to cater for an increase in population, improving agriculture infrastructure and facilities (including improvement of irrigation networks) and improving food diversification. The result was a great success in agricultural production.

Finally, the provision of information to farmers on the financial services available to them will assist in reducing the finance gap. Information could be provided by using reliable social networks in the rural areas, through formal meetings in rural areas or through the media.

9.4 AREAS FOR FURTHER RESEARCH

The phenomenon of agricultural credit requires innovative thinking in practice. This would require further research in the mode of delivery of agricultural credit aimed at resolving market imperfections. For this reason, further research could be conducted to focus on how to link the support provided to farmers towards social perfection. The role of government supported Development Finance Institutions utilising market based approaches but emphasising the social capital in the communities to reach SMEs in the agricultural sector needs to be further explored using appropriate research methodologies.

Furthermore, such research could identify the current training programs offered to credit officers in development finance institutions operating in the agricultural sector. The overarching goal is on how to build sustainable financial institutions in this all important sector of the Namibian economy.

APPENDIX A

Interview guide for Agribank and other relevant stakeholders²⁷

Introduction

The results of this interview will provide the basis for a PhD dissertation in which the financing of agricultural small and medium enterprises (SMEs) is investigated.

Extant research in developing countries such as Ghana, Nigeria, India and Malawi has tended to focus on SMEs in general. Namibia has had few studies done on this topic that focus not only on SMEs in general but also on the demand side or supply side separately. This study will thus contribute to the body of knowledge relating to SMEs in the agricultural sector by focusing on the financial aspect both from the supply and the demand side. To the best of the researcher's knowledge, a study of this nature will be the first one carried out in Namibia.

Rest assured that the responses will be treated in strict confidence in that measures will be put in place to protect identities by assigning pseudonym codes and never reporting any identifier details. Furthermore, data will be kept in a safe locker in the postgraduate laboratory that only the researcher has access to.

To verify the authenticity of this research project, please contact Prof Sylvanus Ikhide, Development Finance, University of Stellenbosch Business School, at +27 (0)21 918 4485.

Personal experience level

1. Name of financial institution.
2. What position do you hold in the department?

²⁷ Modified from Samuel, Ernest and Awuah (2012) and Amiss (2012), and further questions were added as arising from the related literature.

Financing constraints, options and existing support mechanisms (Agribank and other relevant stakeholders)

1. What kind of borrowers do you deal with? (Small-, medium- or large-scale enterprises.)
2. Which of the categories of borrowers above do you prefer and why?
3. Do you fund primary agricultural SMEs? If not, why? (Please elaborate.)
4. What do you think about the quality of applications that you receive and why?
5. What other support/services do you offer to primary agricultural SMEs apart from providing funds?

The following questions are only applicable if your institution is involved in financing or providing any support to agricultural SMEs

6. What are the lending criteria used in terms of providing financial access or any support to primary agricultural SMEs?
7. What are the problems that you can identify when agricultural SMEs apply for financing or any other assistance?
8. What support do you provide to assist SMEs in overcoming the problems experienced when applying for finance?

Finance gap (Agribank only)

9. Have you received any training in dealing with agricultural SMEs when you started working in the department?
10. How has the loan recovery performance been in the past few years since you started giving out loans, and how has this affected the bank?
11. What (in your opinion) are the causes of poor loan recovery performance?
12. What factors do you use in determining your interest rate?

13. Do you sometimes fail to grant loans and why?
14. Do you ask for security to grant loans?
15. What type of security is usually preferred?
16. Do you think that your institution is effectively catering for the needs of SMEs in Namibia in terms of finance that SMEs need and finance that is available? (Please provide any evidence of requested funding and provided funding.)

APPENDIX B²⁸

Interview questions for SME clients

The results of this interview will provide the basis for a PhD dissertation in which the financing of agricultural small and medium enterprises (SMEs) is investigated.

Extant research in developing countries such as Ghana, Nigeria, India and Malawi has tended to focus on SMEs in general. Namibia has had few studies done on this topic that focus not only on SMEs in general but also on the demand side or supply side separately. This study will thus contribute to the body of knowledge relating to SMEs in the agricultural sector by focusing on the financial aspect both from the supply and the demand side. To the best of the researcher's knowledge, a study of this nature will be the first one carried out in Namibia.

Rest assured that the responses will be treated in strict confidence in that measures will be put in place to protect identities by assigning pseudonym codes and never reporting any identifier details. Furthermore, data will be kept in a safe locker in the postgraduate laboratory that only the researcher has access to.

To verify the authenticity of this research project, please contact Prof Sylvanus Ikhide, Development Finance, University of Stellenbosch Business School, at +27 (0)21 918 4485.

Section A – Personal details

1. Name of business.
2. What position do you hold in the business?
3. Do you own a small- or medium-scale farm?
4. How long have you been in business?
5. How many people have you employed or do you plan to employ and why?

²⁸ Interview guide adapted from Samuel, Ernest and Awuah (2012), and further questions were added as arising from the related literature.

Section B – Finance

6. What was the start-up cost of the business?
7. What was the main source of funds for starting the business?
8. Have you ever applied for a loan from an institution? (If yes, where?)
9. If you have never applied for a loan from an institution, please explain why.

(If you answered ‘no’ to Question 8 and gave a reason in Question 9, please proceed to questions 15 to 17 and that is the end of the questionnaire. Thank you very much for your time. If you answered ‘yes’ to Question 8, please proceed to Question 10.)

10. What were the requirements from your financial provider to gain access to finance, and what are your thoughts on these requirements?
11. What do you think are the biggest challenges to accessing finance for agricultural SMEs in Namibia?
12. Was the loan that you applied for approved the first time?
13. What was the amount of the loan that you applied for?
14. If you applied and did NOT receive the loan, what was the reason behind your failure to obtain the loan?

Section C – Financial institutions

15. Are you aware of Agribank?
16. What are the services that you expect from financial institutions such as Agribank?
17. Whom have you approached for advice about access to finance in the past?
18. What other finance options are you aware of apart from loans?
19. What are the problems that you experienced when you applied for the loan?

20. Kindly indicate the reason for your decision to apply for financial assistance at the institution where you applied.
21. Do you think that the staff at the financial institution where you applied are knowledgeable enough and understand your business? If not, please elaborate.

APPENDIX C

Desk review list of examples

Access to finance for smallholder farmers – Learning from the experiences of microfinance institutions in Latin America

Practical lessons for Africa from East Asia in industrial and trade policies

APPENDIX D**Code book families**

Code families	Definition	Example of a code	Example of a quotation
Demand-side constraints	Refers to difficulties experienced by borrowers, i.e. SME farmers, in accessing finance from financial institutions.	Demand-side constraint_lack of collateral	<i>I have a desire to get money from a bank but the biggest challenge is security to secure for the loan. (P8, 84:84)</i>
Supply-side constraints	Refers to difficulties experienced by lenders, i.e. Agribank, in providing finance to borrowers (SME farmers).	Supply-side constraint_no collateral to offer	<i>As people don't have collateral which is part of the requirements that we need that becomes a bit difficult for us to grant loans. (P17, 82:82)</i>
Financing options	Refers to formal financial institutions providing both monetary options, e.g. loans, and non-monetary options, e.g. land, to SME farmers for the purpose of financial support.	Financing options_loan guarantee by the government	<i>Now what happens is the government has entered into an agreement with Agribank and at the same time this agreement is between government and the small-scale farmers now what is happening is the small-scale farmer borrows money from Agribank but the</i>

			<i>government is providing guarantee to that in case that should this small-scale farmer pass away or should they not be able to pay back then government will step in but only if the cause is justifiable example natural causes such as drought, fire. (P22, 28:28)</i>
Reasons for not financing agriculture	Refers to all the motives of financial institutions not to provide financial support to SME farmers.	Reason for not financing_lack of expertise	<i>We don't really have people that is specialised in that industry so we want some people who are specialised in financing agriculture. (P19, 91:91)</i>
Government support mechanisms	Refers to all the financial support made available to SME farmers by government.	Agribank support mechanism_loans	<i>If you are a farmer and you need a loan you have to come to Agribank and Agribank will approve your facility then will issue you with a voucher, this voucher you will use it to go and procure services from different service suppliers and we will pay directly to the suppliers. Once you have procured</i>

			<p><i>the service from the supplier he will issue with a receipt and he will send his claim directly to the bank provided that the client who is a small-scale farmers has confirmed and signed on that invoice that indeed he or she has received that services and he gives that authorisation for us to pay that supplier.</i></p> <p>(P18, 43:43)</p>
SME finance gap issues	Refers to causes of the agricultural SME finance gap.	Cause of SME finance gap_loan default	<p><i>I think demand is more than supply. The money is available but if one does not have the requirements that the banks are looking for it becomes a problem to get access to funds. (P35, 57:57)</i></p>