

PUBLIC-PRIVATE PARTNERSHIP (PPP) CHALLENGES IN NATIONAL AGRICULTURAL EXTENSION SYSTEMS IN UGANDA: TOWARDS A NEW MODEL

BM KISITU

 **Orcid.org/0000-0001-8659-0088**

Thesis submitted for the degree *Doctor of Public Management
and Governance* at the North-West University

Promoter: Professor Costa Hofisi

Graduation: May 2018

Student number: 28078780



Dedication

To

My God, the Most High

My Wife, Doreen Babirye Kisitu

My Mother, Jessica Walusimbi

My children

Bradley Kisitu

&

Brianah Kisitu

You have been so precious in this onerous but wonderful journey

Acknowledgements

All the glory and honour to the Holy Spirit, without His presence all this would not be possible.

I thank the Directors, Management and colleagues at Uganda Management Institute for not only supporting me but allowing me time to pursue my graduate studies. I extend my gratitude to African Development Bank through the Government of Uganda for providing the Financial Support.

I cannot express enough thanks to my promoter Professor Costa Hofisi for his continued support, pressure, encouragement, wise counsel but more importantly the learning opportunities provided. Professor Aaron Mushengyezi, your professional touch transformed the entire thesis into a fantastic piece to read. To Ms. Barbara Alago & Ms. Mary Kabana, am not sure I would have got some of the references right. To Bruno Lubwama, Mr & Mrs Joseph Musisi, the countless times you kept the children during the tight schedules will not be forgotten. Mr Mugisha Emmanuel, Ms. Molly Nyesigomwe, Mrs Rita Walala, May God reward you.

Rose Kwatampora ‘Big Mama’, this paragraph is dedicated to you. Thank you for being the pacesetter, cheer girl, the glow maker and amazingly, making this entire journey seem simple. You brought happiness even through the toughest times.....*tears rolling*.....you will forever be honoured and loved for the seed you sowed. You are a surprise! Toutie, thank you.

Thanks to my Mother, Jessica Walusimbi, your dream is not in vain, I love you so much.

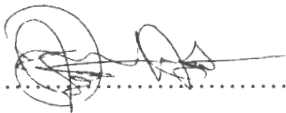
The completion of this project could not have been possible without the support of my children Bradley and Brianah – thank you for allowing me time away from you to research and write – without any complaint. You mean a lot to me and you will forever be my champions!

Finally, to my loving wife and number one supporter, Doreen Babirye Kisitu, I can’t explain the care, love, support and patience, you offered me through this journey, my deepest gratitude. It has always been comforting to know that there is a soul I can run to regardless.

You are a virtuous woman and I am forever privileged that you are made out of my rib. And again.....I look forward to growing old with you - my heartfelt thanks.

Declaration

I, **Bruce M Kisitu**, hereby declare that this thesis is my own original work, has not been submitted for any degree or examination at any other university, and that the sources I have used have been fully acknowledged by complete references. This thesis is submitted in fulfilment of a PhD in Public Management and Governance at North West University.

Signature:.......... Date:.....15/3/18.....

Abstract

PPPs are considered as one of the ways to address the global challenges that require collective effort like climate change and food security. This has prompted African governments to recognise PPPs as one of the avenues for promoting effectiveness, efficiency and sustainability in public service delivery and sustainable development. The rationale for PPPs is that they provide higher quality goods and services at lower costs, they promote innovation and adapt to rapid change and are considered to apply entrepreneurial skills or a business case in service delivery. In 2001, the Government of Uganda implemented an innovative farmer owned private driven agricultural extension system which attracted significant government and development partner support. Despite all the investment and support, the principal-agent relationship was terminated before it evolved through its stages. The primary objective of this study was to establish the PPP challenges in National Agricultural Advisory Services in Uganda and to develop a new PPP model for agricultural extension. The study was guided by the principal-agent theory which supports the emergence of the private sector into the delivery of public services and how it has revolutionized public management and introduced new principal-agent governance structures. The study adopted an exploratory design because PPPs are relatively new in Uganda with little information available on research issues addressing their challenges in agricultural extension. A qualitative approach was employed to gather qualitative data through use document review and semi-structured interviews with snowball and purposively selected participants who had over 3 years' experience in the NAADS PPP agricultural extension programme. It was discovered that politics punctured the implementation of the PPP while gaps in the policy, legal and regulatory framework affected its evolution. In addition, the programme suffered challenges in contract and performance management. The programme also failed to meet accountability expectations of different stakeholders. The study recommends sector wide policies that support private sector emergence and involvement, establishment of a robust contract and performance management system. In addition, the study recommends an accountability system for PPPs in agriculture. Lastly, a Village Enterprise Agent Model using mobile technology and integrated into the public extension system is proposed for agricultural extension.

Keywords: Public-Private Partnerships, PPP, Village Enterprise Agent, Accountability, Agriculture, extension, NAADS

TABLE OF CONTENTS

Dedication	i
Acknowledgements.....	ii
Declaration.....	iv
Abstract	v
ACRONYMS.....	xi
CHAPTER ONE	1
INTRODUCTION AND BACKGROUND TO THE STUDY	1
1.0 Introduction.....	1
1.1 Orientation and background.....	2
1.2 Problem Statement	7
1.3 Research questions.....	9
1.4 Objectives of the study.....	9
1.5 Research methodology	10
1.5.1 Research Design.....	10
1.5.2 Population and Sampling	11
1.5.3 Sampling Technique	11
1.6 Data collection strategy.....	12
1.6.1 Document Analysis.....	12
1.6.2 Semi-structured Interviews	13
1.7 Data Analysis Strategy.....	13
1.8 Ethical Considerations	14
1.9 Significance of the study.....	15
1.10 Chapter outline.....	16
1.11 Summary	18
CHAPTER TWO	19
THEORETICAL AND CONCEPTUAL CONTEXT	19
2.1 Introduction.....	19
2.2 The Principal-Agent Theory	19
2.3 Pluralist/Partnership Extension Model	23
2.4 PPP contract types and the tenets of an appropriate structure for agricultural extension	26
2.4.1 Service Contract.....	27
2.4.2 Management or Operation and Maintenance Contracts.....	29
2.4.3 Design and Build (DB)	30
2.4.4 Design–Build–Finance (DBF)	30
2.4.5 Build-Operate-Transfer (BOT)	31

2.4.6 Build-Own-Operate (BOO)	31
2.4.7 Affermage and Leases.....	32
2.4.8 Concessions.....	34
2.4.9 Joint Venture.....	35
2.5 Conceptual Framework.....	36
CHAPTER THREE	39
POLITICAL DYNAMICS AND HOW IT INFLUENCES PLANNING AND IMPLEMENTATION OF PPPS IN THE NAADS EXTENSION SYSTEM.....	39
3.1 Introduction.....	39
3.2 Political Commitment and its influence on PPP projects	41
3.3 Political control and its influence on PPP projects	43
3.4 Political ambition and how it influences PPP projects	46
3.5 Methodology	48
3.6 Discussion of findings.....	48
3.7 Summary	54
CHAPTER FOUR.....	57
POLICY, LEGAL AND REGULATORY BARRIERS FOR PPP IN AGRICULTURAL EXTENSION UNDER THE NAADS PROGRAMME	57
4.1 Introduction.....	57
4.2 Policy framework for PPP implementation and why it is important for agricultural extension	60
4.2.1 Rational for policy framework.....	60
4.2.2 Prerequisites for emergent PPP policy.....	61
4.2.3 Politics and PPP policy	63
4.2.4 Summary of agriculture extension policy reforms in Uganda	64
4.3 The legal framework and its influence on PPPs in agricultural extension	64
4.3.1 Prerequisites for PPP legal frameworks.....	66
4.4 Regulation and how it affects agricultural extension delivery.....	68
4.4.1 Regulation and politics	70
4.5 Research methods	71
4.6 Discussion of findings.....	72
4.6.1 PPP Policy diagnosis	72
4.6.2 Irregularities in the legal and regulation framework.....	76
4.7 Summary	78
CHAPTER FIVE	80
IMPLEMENTATION MANAGEMENT IN THE PRINCIPAL-AGENT RELATIONSHIP UNDER THE PPP IN THE NAADS EXTENSION PROGRAMME	80
5.1 Introduction.....	80

5.2 Service contract management	81
5.2.1 Dilemma in contract management	84
5.3 Performance Measurement	86
5.3.1 Concept of performance measurement	87
5.3.2 Prerequisites for performance measurement.....	89
5.3.3 Output specifications	90
5.3.4 Performance based specifications	92
5.3.5 Evaluation of Public Private Partnerships.....	93
5.3.6 Performance monitoring	95
5.4 Research Methods.....	97
5.5 Discussion of findings.....	97
5.6 Summary	101
CHAPTER SIX.....	103
ACCOUNTABILITY AND IMPLEMENTATION OF PPP PROJECTS IN AGRICULTURAL EXTENSION UNDER THE NAADS PROGRAMME.....	103
6.1 Introduction.....	103
6.2 Accountability through a control lens: from hierarchical to horizontal relationships .	107
6.3 Accountability as a pursuit of public interests and expectations	110
6.4 Accountability as a flow of information	113
6.5 Research Methods.....	115
6.6 Discussion of findings.....	116
6.6.1 The nature of accountability mechanisms and relationships	116
6.6.2 Meeting public interests and expectations	119
6.6.3 Flow of information	120
6.7 Conclusion	120
CHAPTER SEVEN	123
E-EXTENSION AND THE VILLAGE ENTERPRISE AGENT (VEA) MODEL: AN INNOVATIVE PPP FOR AGRICULTURAL EXTENSION – A SYNTHESIS OF FINDINGS.....	123
7.1 Introduction.....	123
7.2 Justification for a new agricultural extension model based on a PPP.....	125
7.3 Conceptualising models.....	128
7.4 Methodological thoughts in model building.....	129
7.5 Agricultural extension and the public extension system.....	132
7.6 Rationale for the Village Enterprise Agent (VEA).....	134
7.6.1 The Village Enterprise Agent (VEA)	135
7.7 The Smart mobile phone and the e-extension application	136
7.8 E-extension and the VEA model.....	137

7.8.1 Model operationalisation	140
7.8.2 Connecting the Dots.....	142
7.9 Overall concluding remarks and policy implications	148
REFERENCE LIST	151
Annexure 1: Research Instruments	168
Annexure 2: Registration of Title	173
Annexure 3: Central Committee for Advanced Degrees (C-CAD) Letter	174
Annexure 4: Ethics Approval Certificate of Study	175
Annexure 5: Gate Keepers letters	178
Annexure 6: Notice of Submission.....	183
Annexure 7: Sample Participation Agreement for Districts	184
Annexure 8: Proof of editing	188
Annexure 9: National Agricultural Extension Policy	189

LIST OF FIGURES

Figure 1: Conceptual Framework for identifying the challenges of PPP under the NAADS programme	37
Figure 2 showing gaps in the current extension system	138
Figure 3 illustrating the e-extension and VEA model	141

ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
BPM	Business Partnership Model
BOO	Build Own Operate
BOT	Build Operate Transfer
BOOT	Build Own Operate Transfer
BROT	Build Rehabilitate Operate Transfer
CAO	Chief Administrative Officer
CKW	Community Knowledge Worker
DAES	Directorate of Agricultural Extension Services
DB	Design Build
DBF	Design Build Finance
DBFM	Design Build Finance and Manage
DBFOM	Design, Build, Finance, Operate, and Maintain
EAGC	East African Grain Council
EC	European Commission
EPEC	European Public Private Partnership Expertise Centre
FAO	Food and Agriculture Organization
FF	Farmer Forum
FIF	Farm and Infrastructure Foundation
GOK	Government of Kenya
GOU	Government of Uganda
ICCC	The Independent Consumer and Competition Commission
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IPPP	Institutional Public Private Partnerships
KPI	Key Performance Indicator
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
MPED	Ministry of Finance Planning and Economic Development
NAADS	National Agricultural Advisory Services
NCPPP	National Council for Public-Private Partnership
NDP	National Development Plan
O&M	Operation and Maintenance

OECD	The Organisation for Economic Co-operation and Development
PFI	Private Finance Initiative
PMA	Plan for Modernization of Agriculture
PNG	Papua New Guinea
PPP	Public-Private Partnership
PSC	Public Sector Comparator
SADC	South African Development Community
SAP	Structural Adjustment Policy
SSA	Sub-Saharan Africa
UK	United Kingdom
UNECE	United Nations Economic Commission for Europe
US	United States of America
USAID	United States Agency for International Development
VA	Village Agent
VEA	Village Enterprise Agent
VfM	Value for Money
WB	World Bank
WRS	Warehouse Receipt System

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

Agricultural extension in Sub-Saharan Africa is faced with confusion characterised by climate change, pressures from the global competitive market and an increasing reduction in public funding for extension (Krell *et al.*, 2016:1-2; Kwarteng & Naibakelao, 2016:1-3; Baloch & Thapa, 2017:2). This has raised debates over the future of agricultural extension given that there is an increasing demand for timely and relevant agricultural information which is not matched with innovative and better techniques in information dissemination (Krell *et al.*, 2016:2; Kwarteng & Naibakelao, 2016:3) which Houdret *et al.* (2017:2) partly blames for failure of many Sub-Saharan African countries to meet their full development potential. Kwarteng and Naibakelao (2016:5) argue that the confusion in extension can only be solved by highly motivated and practical individuals who are innovative, market-oriented and entrepreneurial. Given public sector deficiencies, the private sector is suggested as an option because they are perceived to know what farmers want and will innovate products and services which satisfy farmer needs and expectations. Public Private Partnerships are therefore proposed as a preference to fill the existing expertise, experience and knowledge gaps (Krell *et al.*, 2016:3). It is supposed that farmers will benefit from competencies of both public and private partners to develop timely, relevant and practical solutions for them. However, while PPP in extension are considered a panacea to the prevailing challenges, there is still limited data on PPP in extension (Krell *et al.*, 2016:3).

Agricultural extension in sub-Saharan Africa has gone through many reforms with Uganda not an exception. Following the failure of the Structural Adjustment Policies (SAPs) in Uganda in the early 1990s, the Government of Uganda (GoU) introduced the Plan for Modernization of Agriculture (PMA) in 2000. The SAPs had failed to respond to and deliver the desired expectations among stakeholders in the agricultural sector (MAAIF, 2000:4-5; Rwamigisa *et al.*, 2011). Agricultural extension in Uganda was characterized by poor farmer coverage and lack of appropriate and relevant technologies among others (Shankman, 1999; Demisse *et al.*, 2011:2). PMA was therefore established to transform agriculture through a holistic, multifaceted approach, which links agriculture to other sectors. The National Agricultural Advisory Services (NAADS) programme was established as one of the pillars

under PMA. The programme which begun in six trial districts of Arua, Mukono, Soroti, Tororo, Kibaale and Kabale, aimed at establishing a decentralized farmer owned and private sector driven extension system (MAAIF, 2000:1; Davis, 2008:23; Kisitu, 2010:15). This led to a new dimension in agricultural extension service: with private sector involvement, it was transformed from being a purely public service provided by government. A principal-agent relationship ensued where government acted as the ‘principal’ and the service providers became ‘agents’. Partnership extension services, which involve participation of other stakeholders such as Non-Governmental Organizations (NGOs), the private sector and government, were also adopted. Thus, roles that were traditionally played by the public sector in extension services – for example, farmer visits and training – shifted to or were shared with the private extension agents. A review of the NAADS programme in 2007/8 revealed that it was not meeting its objectives and resolutions were made by government to abolish the role of private extension workers. This study, therefore, aims at exploring the challenges involved in this Public-Private Partnership (PPP) model and proposes a possible model for future agricultural extension systems.

1.1 Orientation and background

Agriculture is the main stay in Africa with 64% of the total population engaged in the sector. In addition, agriculture employs about 70% of Africa’s labour force many of whom are rural based, undernourished farmers living in extreme poverty (Ahenkan & Osei-Kojo, 2014:167-169). The Agricultural sector is the major driver for growth, poverty reduction, and food security in Africa. The African Development Bank (AfDB) affirms that sustained coordinated investment and increased linkages with the private sector will unlock Africa’s agricultural potential and food security challenges (AfDB, 2013:19; Wilda *et al.*, 2014:2). Compounded by its Private Sector Development Strategy (2013-2017: VI), the AfDB believes that the future of Africa’s economic growth cannot be divorced from the private sector, which can deliver quality services to the people. For economic and sustainable growth to materialize, nations engage in major developments, which are so complex that neither a private developer nor a public entity alone can finance, design, develop, construct, and operate them. Therefore, developing public-private partnerships (PPPs) can significantly support the implementation of development projects (Corrigan, 2005:32).

The increased demand for efficiency and better service delivery from populations, coupled with deficient government investments, have triggered new and innovative ways of providing

public services (SAIIA, 2005:17; ADB *et al.*, 2014:33-34). This has prompted African governments to recognize PPPs as one of the avenues for promoting effectiveness, efficiency and sustainability in public service delivery and sustainable development (ADB *et al.*, 2014:13). However, some scholars argue that PPPs simply “do not work” because of the divergent objectives of the public and private sectors (Jomo *et al.*, 2016:1). They note that PPPs are complex, challenging and time consuming and only offer tangible benefits to government, the private sector and consumers if they are implemented under the right conditions and in the right sector (SAIIA, 2005:7). The World Bank (2016) & SAIIA (2005:7) confirms that with the correct regulatory framework and strong political commitment, PPPs offer value for money to governments and good opportunities for investors. For instance, Jomo *et al.* (2016:6) points out that, “the average size of PPP projects implemented in developing countries has increased from \$182 million in 2003 to \$322 million in 2013, but peaked in 2010 at \$410 million”. However, in developing countries the private sector has only provided a small fraction (15% to 20%) of infrastructure financing when compared to the public sector.

According to ADB *et al.* (2014:18), PPPs have no standard and widely accepted definition (Jomo *et al.*, 2016:3). Different institutions and countries have developed and contextualized PPP definitions (Jomo *et al.*, 2016). This study adopts the definition by ADB *et al.* (2014:14) that defines PPPs as a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.

The analysis from the definition above demonstrates that PPPs generally take the form of a medium and long-term value agreement whereby the private partner commits to perform some or most of the phases of the service or asset provision originally offered by the public sector (Burnett, 2005:21; Renda & Schrefler, 2006:5). In addition, (Burnett, 2005:21) concurs with Renda & Schrefler (2006:9) that PPPs create greater opportunities and risks when compared to other public contracts and therefore necessitate a careful and lengthy selection process. According to Renda & Schrefler (2006:5), the core principle of PPPs lie in the redistribution of risk, responsibility and fair reward to the party that is best suited to manage and do it with the least cost (Jomo *et al.*, 2016:3). Therefore, the choice of the PPP model should be selected only if the benefit cost ratio of private provision outweighs the results

obtainable with traditional government interventions (Renda & Schrefler, 2006:7; Delmon, 2010:8; Levai, 2012:4).

According to Renda & Schrefler (2006:7), the National Council for Public Private Partnerships NCPPP (2002:4) and the European Commission (2003:16), the definitive goal of a PPP is to provide a more efficient and cost effective means of providing the same or better level of service ('value for money') than what the traditional public procurement options would deliver. But some studies have found cases of deceptive techniques of assessing value for money which attempt to make PPPs appear to out-perform traditional public provision (Jomo *et al.*, 2016:1). In order to derive the desired 'value for money' and transparency in implementation, the European Commission (EC, 2003:38) suggests that early development of conducive and consistent national legislative and regulatory structures which ease the identification, development and implementation of PPPs, is critical. In addition, developing PPP policies should be associated with how the government will interact with the private sector in order to improve public services or create innovation (Hodge & Greve, 2011:3).

Therefore, PPPs can take the form of design, construction, financing, operation and maintenance of public infrastructure or facilities, or the operation of services, to meet public needs. As the NCPPP (2002:4) observes, the rationale is that the private-sector should have the capability to provide more favourable long-term financing options than may be available to a government entity and to secure financing in a shorter time. Moreover, the private sector is expected to innovate and design the best solution according to the government's specifications, offer technical expertise as well as bear the associated operational risks (SAIIA, 2005:14). This means that the success of a PPP programme hinges on thorough planning, good communication, strong commitment on objectives and expectations from all parties, in addition to effective monitoring, regulation and enforcement by government (SAIIA, 2005:7; NCPPP, 2002:17).

While PPPs are becoming more widely used, there are significant gaps in their design, construction and operational phases (Burnett, 2005:1). Like other forms of government tendering, PPPs are facing challenges in filling the service delivery gap between what the government can afford and what the people need (Hammami *et al.*, 2006:3). According to El-Gohary *et al.* (2006:595), this challenge has led to failure of some PPP initiatives around the world and because of this, there is need for public entities to create systems which guarantee

quality results or quickly detect and rectify any bottlenecks in the PPP agreements and implementation (NCPPP, 2002:17).

According to International Finance Corporation (IFC, 2013:8), the potential for PPPs in Africa is enormous with opportunities likely to expand further into new sectors such as social services, targeting small and large projects, local, regional and international players. Within the agricultural sector, a new thinking is evolving in the delivery of agricultural extension services in the context of decentralization, outsourcing, cost recovery and involvement of private sectors and Non-government organizations (NGOs) (Jumaboev *et al.*, 2013:21). The World Bank defines the concept of agricultural extension as a “process that helps farmers become aware of improved technologies and adopt them in order to improve their efficiency, income and welfare”, adopted from (Demisse *et al.*, 2011:1).

Originally, the primary objective of extension services in Africa was to offer research-based knowledge to the rural communities to improve farmer livelihood. Extension today goes beyond technology transfer to cover “facilitation which may include formation of farmer groups, addressing market dynamics and partnering with a broad range of service providers and other agencies,” thus the phrase, “agricultural advisory services” (Davis, 2008:16). This research adopts the term agricultural advisory services and uses it interchangeably with extension to mean the contemporary view of extension.

Historically, many governments in developing countries assumed the responsibility of providing extension services to farmers (Swanson & Samy, 2002:1). However, the delivery of agricultural extension service in Africa just like it is globally has encountered major challenges, the most significant being poor coverage and lack of appropriate and relevant technologies among others (Demisse *et al.*, 2011:2). As a result, extension programmes in most countries have deteriorated and negatively affected the farmers’ technical needs due to insufficient investment and lack of a continuing flow of appropriate technology (Swanson & Samy, 2002:1). The smallholders in Africa, therefore, are not only failing to meet standards and satisfy demand from buyers, but have also been excluded from high value markets (Narrod *et al.*, 2009:9).

Researchers like (Demisse *et al.*, 2011:1) have, therefore, suggested policy changes in the current extension systems where governments need to act in defining and implementing a

holistic extension policy that includes growth of multiple service providers, reduced public sector responsibilities, and a change in the nature of agriculture research and structure of the agricultural sector. This change will lead to a new dimension in agricultural extension service in Africa, from being completely public service led to more private sector involvement. Partnership or pluralist extension services have become a common phenomenon in East, Central and Southern Africa where many stakeholders like farmers, NGOs, the private sector and government, participate in the delivery of advisory services to farmers (Saliu *et al.*, 2009:75). Roles that were traditionally played by the public sector in extension services are shifting to, or are being shared with, the private sector.

In Uganda, the PPP policy framework (2010) defines PPP as a medium to long-term contractual arrangement between the public and the private sector to finance, construct, renovate, manage and/or maintain public infrastructure or to provide a public service (MoFPED, 2010:7). The Uganda PPP Act (2015) elaborates that a PPP exists where a contracting party, for instance a Ministry, Government department or any other public body, enters into a commercial transaction with a private party, where the private party performs a function on behalf of the contracting authority (MoFPED, 2015).

In 2001, the Government of Uganda (GoU) implemented a farmer owned, private sector driven extension system which is one of the pillars of the Plan for Modernization of Agriculture (PMA) and designed as a response to a government proposal to transform agriculture through adoption of a holistic, multifaceted approach which links agriculture to other sectors. This shift followed the challenges of the Structural Adjustment Policies in the early 1990s, which failed to deliver the desired expectations in the agricultural sector (MAAIF, 2000:4-5; Rwamigisa *et al.*, 2011). Established by an Act of Parliament in 2001, the NAADS programme begun in six trial districts of Arua, Mukono, Soroti, Tororo, Kibaale and Kabale with a vision of a decentralized farmer owned and private sector serviced extension system contributing to the realization of the agricultural sector objectives (Davis, 2008:23; Kisitu, 2010:15; MAAIF, 2000:1).

A public private partnership involved contracting private extension workers or Private Service Providers (PSPs) under performance service contracts to deliver public extension services on a commercial basis. The partnership explored the involvement of the private sector in research and delivery of advisory services (MAAIF, 2000:45; Rwamigisa *et al.*,

2011:2). The PPP took the form of an agency relationship where the agent acts for, on behalf of, the principal. The service providers representing the private sector were contracted by the NAADS programme representing government with the expectation that they will fulfil government's mandate of providing timely and relevant information to farmers (Babayan & Kadlečíková, 2016:2).

During the financial year 2007/2008, policy makers raised concerns about NAADS not meeting the needs of the intended beneficiaries and it was temporarily suspended (MFPED, 2009:21). The Government of Uganda passed a series of resolutions for restructuring NAADS, which led to abolishing of private extension workers. Abolishing private service providers in Uganda raised questions which prompted this research, to explore the challenges involved in the innovative PPP model in the NAADS. Siemiatycki (2012:34) reports that PPPs are not a static model of project delivery and, therefore, the knowledge generated from the shortcomings of PPPs in agricultural extension provide an opportunity for innovations to address these contemporary challenges.

1.2 Problem Statement

The NAADS programme in Uganda was established by an Act of Parliament (NAADS Act 2001). The programme was set up as a PPP following the negative outcomes of the agricultural reforms triggered by the structural adjustment policies of the early 1990s' (NAADS, 2001:7). The NAADS programme coordinated by the NAADS Secretariat contracted out extension services to private individuals and corporate bodies (known as service providers) in order to foster accountability and delivery of quality services (NAADS 2001:19). The programme design was consistent with the principal-agent model where NAADS acted as "principal" and the service providers as "agent". In line with the principal agent models, the NAADS specified a set of actors, possible actions they can take, and how they would evaluate consequences of those actions (Gilmard 2012:4; NAADS 2001). According to Babayan and Kadlečíková (2016:318), this arrangement resulted into delegation of tasks, which established a principal-agent relationship where the principal depends on the agent to undertake a task on the principal's behalf.

In order to face and solve principal-agent dilemma, each service provider signed a service contract which, according to the model, addresses the most complex issues and precisely defines the tasks assigned to the agent, the measurement of the agent's performance, and the

extent to which the principal can control and monitor the agent's performance for the whole duration of the contractual relationship (Renda & Schrefler, 2006:5). This contractual agreement, according to (Laffont & Martimort, 2009:18), is essential in aligning the interests between all parties and it influences the agents' behaviour to ensure that they do not deviate from their performance commitments (Babayan & Kadlecikova, 2016:317). In addition, NAADS planned to provide an incentive for service providers to serve more remote areas with poor farmer groups (NAADS, 2001:19).

The innovative demand driven approach meant that the private extension providers offer services that have been demanded by the farmers, thereby minimizing costs arising from a supply driven approach (Okoboi *et al.*, 2013:2). In line with South African Institute of International Affairs SAIIA (2005:14), the plan for the NAADS programme was to ensure a gradual shift from the public to the private sector as the main service provider with the aim of increasing private sector funding of agricultural advisory services in the long term (MAAIF, 2000:xi). The first phase of the 25-year programme commenced in 2001 to 2010 attracting a total \$180m. The second phase (July 2010 to June 2015) under the Agricultural Technologies and Agri-business Advisory Services included a component on agricultural research development and use of ICT in research and extension. This phase was projected to cost \$665.5m (World Bank, 2010:5).

Despite high levels of investment accorded to the PPP, coupled with a well-developed and detailed NAADS implementation manual with structures established at all levels, the programme suffered several set-backs. The national service survey conducted from 2007 to 2008 showed that only 10% of the farmers were receiving extension support with the majority expressing dissatisfaction with services provided by the agents (Auditor General, 2008:22). During 2007/2008 financial year, policy makers who included the technical persons in the agricultural sector and politicians observed that NAADS was not meeting the needs of the intended beneficiaries and on September 10th 2007, the President of Uganda H.E the President of Uganda, Mr. Yoweri Kaguta Museveni temporarily suspended the programme (Rwakakamba & Lukwago, 2014:4). Government passed a series of resolutions for restructuring NAADS which were concretized into the NAADS New Implementation Guidelines 2008 (MFPED, 2009:21). The new guidelines abolished the private service providers thereby bringing to an end the principal-agent relationship.

While many researchers such as Rwamigisa *et al.* (2013); Friis-Hansen *et al.* (2014); Malinga and Nampungu (2015); Benin *et al.* (2018) have focused on the impact, opportunities and limitations of the NAADS programme, few studies have been conducted on the challenges of PPPs in an agricultural extension service programme such as NAADS. In this study, emphasis was put on exploring the challenges of a PPP in agricultural extension services, specifically highlighting the possible shortcomings in the principal-agent relationship. The study adopted a qualitative approach to discover the causes of discrepancy between what the NAADS programme reported as performance and what the agent actually delivered. The study uses its findings to propose a model that may be adopted by future projects.

1.3 Research questions

The study sought to answer the following questions:

1. What are the theoretical and conceptual issues related to PPPs in agricultural extension in Uganda?
2. How did the political dynamics influence planning and implementation of PPPs in the NAADS extension programme?
3. Are there policy, legal and regulatory gaps in the planning and implementation of PPPs in the NAADS extension programme?
4. What are the effects of implementation management in the principal-agent relationship under the PPP in the NAADS extension programme?
5. How did accountability affect the implementation of the PPP in the NAADS extension programme?
6. What model can be developed to stimulate PPPs in the National Agricultural Extension system in Uganda?

1.4 Objectives of the study

The objectives of this study are:

1. To establish the theoretical and conceptual issues related to Public Private Partnerships in agricultural extension in Uganda.
2. To explore how the political dynamics influence planning and implementation of PPPs in agricultural extension services under the NAADS programme.
3. To find out the gaps in the policy, legal and regulatory frameworks in planning and implementation of PPPs in the NAADS extension programme.

4. To identify the effects of implementation management in the principal-agent relationship under the PPP in the NAADS extension programme.
5. To find out how accountability affected the implementation of the PPP in the NAADS extension programme
6. To innovate a possible PPP model for the National Agricultural Extension System in Uganda.

1.5 Research methodology

This section presents the research methodology and techniques used. It specifies the research design, target beneficiaries, area and population sample size and sampling procedure that was used. It also gives the techniques and procedures of data analysis. The section also states the research principles that were considered as part of the ethical evaluation standards.

1.5.1 Research Design

As explained in the objectives and research questions, the primary concern of this study was exploratory. It adopted an exploratory design because PPPs are relatively new in Uganda with little information available on research issues addressing their challenges in agricultural extension (Sekaran 2003:119; Babbie 2007:88). This design focused on satisfying the curiosity and deeper understanding of how the PPPs in NAADS were conducted before proposing a model that may be adopted by future projects (Sekaran, 2003:119). This design was considered appropriate because it helped to unravel why the objectives of the PPP and the principal-agent relationship were not achieved. The information generated will contribute to the policy framework for future PPPs in agricultural extension services (Patton, 2002:193). Exploratory studies have been criticized for not providing satisfactory answers to research questions due to the failure to identify a representative sample (Babbie 2007:89). This study, however, ensured that proper sampling techniques are undertaken in order to pick a representative sample.

The research also employed a case study in order to get an in-depth and contextual analysis of districts, sub-counties and parishes where the NAADS PPPs were implemented. The cases also helped to answer questions why, what and how the failure of PPPs occurred (Saunders *et al.*, 1997:77). Amin (2005:201) confirms that case studies can be used in exploratory studies. Therefore, the cases were critical in understanding and correctly translating the dynamics of the research problem to each area of study (Sekaran, 2003:36; Yazan, 2015:139).

1.5.2 Population and Sampling

Population in research, as Sekaran (2003:265) & Babbie (2007:190) observe, is the total of the entire group of objects, subjects or elements under investigation and from which a sample is selected. The study targeted districts where the NAADS programme was implemented from which a sample of three districts (Tororo, Arua and Kabale) was drawn. The target population in this study encompasses four groups as outlined below.

The first target group comprised three top management officials at the NAADS Secretariat. The second group included district and sub-county NAADS Coordinators together with the sub-county chief. The research also targeted officers in charge of procurement at the district and sub-county levels. The third category was the service providers. The study interviewed service providers who were awarded NAADS contracts and operated for at least three years in the programme. Individual services providers of firms or agencies were considered for the study. The agencies were identified at the sub-counties under study. The last category was farmers at village level. Only farmers who were beneficiaries and interacted with a private service provider were considered for the study. Eighteen farmers were drawn from each district making a total of 54 farmers, three farmers per village.

1.5.3 Sampling Technique

The study used non-probability sampling methods to draw the sample. This method was adopted because it is effective in obtaining a holistic view of situations and understanding systems, institutions and underlying processes (Amin, 2005:244).

1.5.3.1 Purposive sampling

This technique was used to identify key informants with knowledge and experience on PPPs in NAADS. Purposive sampling helped to identify respondents with experience and knowledge of PPP implementation that took place in their area of jurisdiction (Amin, 2005:243; Saunders *et al.*, 1997:145; Sekaran, 2003:277). It should be noted that this sampling technique is also recommended for case studies (Saunders *et al.*, 1997:145; Yazan, 2015:141).

Purposive sampling was also used to draw samples of private extension service providers with at least three-year experience in supporting the NAADS programme. This technique was

applied to service providers because they are the only ones with first-hand experience in executing PPP contracts provided by the NAADS programme (Sekaran, 2003:243).

This sampling technique has been criticized for having potential for inaccuracy in the researcher's criteria and the resulting sample selection. However, the researcher ensured that that the sample was drawn based on the desired characteristics of the sampled elements.

1.5.3.2 Snowball or network sampling

Snowball sampling is a strategy which consists of identifying respondents who are then used to refer a researcher to other respondents (Atkinson & Flint, 2001:1). This method was used to identify the farmers who have benefited from the NAADS programme during the period 2001 to 2007. This technique was used because the researcher had difficulties in accessing lists with details of farmers who benefited from the NAADS programme during the period 2001 to 2007 (Saunders *et al.*, 1997:147). In addition, the researcher had to establish some degree of trust in order to initiate contact especially among some suspicious beneficiary farmers who may have been reluctant to participate in the study (Atkinson & Flint, 2001:2).

The researcher traced farmers with guidance from district officials or service providers and then asked them to pinpoint other members who may have benefited from the programme. Therefore, trust was developed through referrals made by acquaintances or peers. A total of 54 NAADS beneficiary farmers from 9 villages were selected for the study (Berg, 2001:33; Kothari, 2004:59). Only villages where NAADS was implemented for at least three years from 2001 to 2007 were considered for the study.

1.6 Data collection strategy

During this study, research questions were answered using a combination of secondary and primary data (Saunders *et al.*, 1997:159). The data collection process used semi-structured interviews and document analysis. All the tools were developed with guidance from Yin's (1984) principles of designing tools for case studies as adopted from Tellis (1997:6).

1.6.1 Document Analysis

Document analysis involved carefully studying recorded or published information accessed through the Internet or libraries or archives from different targeted samples. Some of the documents included newspapers, articles, speeches, reports, and policy documents. The

review was done with the help of a documentary review checklist to capture all the relevant key research questions. The essence of reviewing existing project documents was to answer the research questions thereby, getting acquainted with the project design, implementation strategy, deliverables as well as assess factors that led to failures of the PPPs (Saunders *et al.*, 1997:158).

1.6.2 Semi-structured Interviews

Semi-structured interviews were also used to source for primary data. The semi-structured interview is a qualitative method of inquiry that combines a set of pre-determined open-ended questions with the opportunity to explore further particular themes or responses. The interviews targeted three staff at the NAADS Secretariat, 15 private service providers and 54 farmers. This method was helpful in identifying some salient issues from which the researcher was able to determine variables that need further in-depth investigation (Sekaran, 2003:225). An interview guide consisted of a list of themes and questions guided by the research questions and objectives (Saunders *et al.*, 1997:212). The nature of the questions and subsequent discussions prompted note taking. The flexibility of semi-structured interviews assisted the researcher to adjust the interviews to meet any diverse situations and to follow up leads and obtain more data and clarity (Amin, 2005:184).

The essence of using the semi-structured interviews was to gather expert knowledge and views about the project design, implementation strategies and lessons learnt. These would guide formulation of future models and policies for PPPs. The semi-structured interviews allowed conversation with the respondents and gave an opportunity to the interviewer to ask probing questions in order to clarify and refine the information provided (Stake, 2010:95).

1.7 Data Analysis Strategy

The researcher transcribed key informant notes from respondents, edited and harmonized them for completeness, accuracy, readability and meaningfulness. Data was then transferred to MS word for processing and analysis using a content analysis framework. The key research questions guided the content analysis process. Content analysis was used to provide knowledge and understanding on the objectives under study (Hsieh & Shannon, 2005:3). Two major approaches – conventional and summative content analyses – were adopted for this study. A conventional content analysis was adopted for the study because there is little literature available on PPPs especially in agricultural extension in Uganda (Hsieh & Shannon,

2005:4). The researcher avoided preconceived categories and allowed the names of the categories to flow from the data. The researcher allowed new insights to develop through inductive category development (Hsieh & Shannon, 2005:4; Schutt, 2011:322).

The researcher identified problems and concepts that appeared to help in understanding the situation (Schutt, 2011:325) by reading all data repeatedly to make sense of it as a whole. Data was then read word by word to derive codes by first highlighting the exact words from the text that appear to capture key thoughts or concepts. Reconstruction of the original comments from interviews produced initial notes based on first impressions and thoughts, and these helped in the analysis (Schutt, 2011:326). During this process, labels for codes emerged that are reflective of more than one key thought. These were generated directly from the text and became the initial coding scheme. Codes were then sorted into categories based on how different codes are related and linked. These emergent categories were used to organize and group codes into meaningful clusters. Definitions for each category, subcategory, and code were then developed (Hsieh & Shannon, 2005:4). The relationship between categories and subcategories was further analysed based on their concurrence, antecedents, or consequences identified. The advantage of the conventional approach to content analysis was gaining direct information from study participants without imposing preconceived categories. Hsieh & Shannon (2005:6) argue that the result of a conventional content analysis is concept development or model building.

A summative approach to qualitative content analysis commenced with identifying and quantifying certain words or content in the text to understand the contextual use of the words or content. In this analysis, the focus was on discovering underlying meanings of the words or the content. The quantification of words was an attempt not to infer meaning but to explore usage. A summative approach to qualitative content analysis focused beyond mere word counts to include latent content – the process of interpretation. The summative content analysis was instrumental in providing basic insights into how words and phrases such as public-private partnerships are actually used thereby helping in interpreting the contextual meaning of concepts (Hsieh & Shannon, 2005:11).

1.8 Ethical Considerations

The research process followed the North-West University (NWU) ethical standards. The researcher sought written permission from the department before proceeding to the field.

Thereafter, written permission to conduct the study in the district and other institutions was also sought from the Uganda National Council for Science and Technology. The researcher recruited enumerators with experience in conducting field research. The research assistants attended a two-day training which highlighted, among others, the objective of the study, ethical issues, data collection and analysis procedures.

The research assistants sought for written informed consent from all respondents at least 24 hours before carrying out any interviews. The consent forms are kept by the researcher for the period specified by NWU. Respondents were given adequate information about the objectives of the study and they were allowed to ask questions. The nature of the research was explained to the participants so that they are in a better position to make an informed decision about whether to participate in the study.

Participants were assured that their participation was voluntary and that they had the option not to participate or withdraw from participating at any given time. During data collection, all responses did not bear details of the respondents in order to prevent any bias. The identity and anonymity of the respondents was also guaranteed. The respondents were informed that their responses would remain confidential and would not be shared with any other party. The research was conducted in a favourable environment, which allowed open communication and transparency. This helped to avoid any fears and possible risks that may result from the interaction with the respondents. The findings of the study have been aggregated not only on the basis of the individual but based on responses from all participants. In terms of data storage, the study data sets have been encrypted in digital form and stored on a cloud platform, Salesforce. The platform is protected, accessible online only by the researcher and supervisor with a secure login account and password. The data sets will be protected for a period of 5 years as stipulated by the University regulations.

1.9 Significance of the study

This study acknowledges that globally PPPs are a not new phenomena and their failures are unavoidable because of the incongruence of objectives of the public and private sectors (Jomo *et al.*, 2016:3). Various scholars have conducted research on PPPs in agricultural extension specifically focusing on their impact and limitations without identifying why the partnerships actually failed. Davis (2008:24) argues that there is need to understand extension

models of different countries in Africa if countries are to develop and implement more effective ones. This research, therefore, envisages contributing new knowledge in this area.

The study provides insights in the analysis of why few PPP projects especially in agricultural extension in Uganda have not gone through the complete cycle of their design, construction and operational phase. This will assist public officials, financial institutions and the private sector to better plan and implement PPP interventions. The analysis will assist in creating an innovative hybrid PPP model in agricultural extension that encourages deeper and more meaningful collaborations between partners. Secondly, the study will contribute towards policy instruments with regard to management of PPP relationships in Uganda.

The findings from the research will be disseminated through a workshop organized at Uganda Management Institute. The workshop will attract key stakeholders in agricultural extension. A policy dialogue session will also be organized to inform policy for future programmes.

1.10 Chapter outline

This section presents an outline of all the chapters in this study. All the empirical chapters in this study are written in article format with each chapter presenting specific literature review on the phenomenon under investigation, specific method employed for the chapter as well as discussion of findings and conclusion. The chapters include;

Chapter 1: Introduction and background to the study

This study was conducted to explore the failure of PPPs in National Agricultural Advisory Services in Uganda. The NAADS programme was chosen as a case study because it is one of the key government programmes that implemented a farmer-owned, private driven performance based extension model. This chapter presents the overall background to the study. The chapter is further structured into the statement of the problem, objectives, significance and justification of the study.

Chapter 2: Theoretical and conceptual context

This chapter presents the theories underlying this study and how they are linked to the problem being investigated. Contributions made by other scholars, weaknesses and gaps therein will be reviewed in this chapter. This chapter presents the different PPP contract types

and it identifies how they are linked to agricultural extension. The chapter supports the synthesis of agricultural extension and public-private partnerships.

Chapter 3: Political dynamics and how they influence planning and implementation of PPPs in the NAADS programme

This chapter presents the political dynamics that affect the implementation of PPPs in the NAADS programme. This section is conceptualized under sub-themes generated during data analysis. The themes include political commitment, political control and political ambition.

Chapter 4: Policy, legal and regulatory frameworks in planning and implementation of PPPs in the NAADS extension programme

This chapter provides reviewed literature on the contribution of policy, legal and regulatory framework in planning and implementing PPPs. The chapter also presents a review of the policy, legal and regulatory frameworks and identifies any gaps that may have affected the planning and implementation of the PPP in the NAADS extension programme. Empirical evidence on the sub-themes is also discussed in the chapter.

Chapter 5: Implementation management and the principle agent relationship under the PPP in the NAADS extension programme

This chapter presents literature on implementation management and how it influences the success of PPPs. It discusses scholarly contributions from other scholars who have researched this area. The chapter also provides empirical evidence on how implementation management affected the principal-agent relationship under the NAADS PPP extension programme.

Chapter 6: Accountability and implementation of the PPP in the NAADS extension programme

This chapter presents debates on accountability and public private partnerships. The chapter attempts to explore accountability in PPP for agricultural extension. This chapter also provides empirical evidence on the accountability gaps and how they affected the principal-agent relationship under the NAADS PPP extension programme.

Chapter 7: Discussion of the PPP model

This chapter discusses the proposed PPP model based on the conceptual and theoretical framework and lessons learnt from the weaknesses, failures and findings of the study.

1.11 Summary

Chapter one presented the background to the study and illustrated the problem statement and significance of the study. The objectives of the study and research questions were also tackled in this chapter. The next chapter discusses the theoretical and conceptual context of the study. The chapter presents the theory that underpins the study as well as the conceptual framework of the study.

CHAPTER TWO

THEORETICAL AND CONCEPTUAL CONTEXT

2.1 Introduction

Many governments are increasingly being forced to think innovatively on how to engage the private sector to address the increasing public demand for improved service delivery and management of public infrastructure (Farquharson & Yescombe, 2011:10; Roehrich *et al.*, 2014:110). Farquharson and Yescombe (2011:10) emphasise that this increasing public demand coupled with the public investment gap, has forced governments to mobilize private investments to speed up the delivery of public services through public-private partnership (PPP) projects. PPPs in agriculture are a major stimulant for modernization of the agriculture sector and they deliver manifold benefits for sustainable agricultural development that is all-encompassing of smallholders (FAO, 2016:3). PPP arrangements are also becoming an alternative for effective agricultural extension service delivery where government funding for extension programmes especially in Sub-Saharan Africa has dwindled (Ferroni & Castle, 2011:1066; Gwary *et al.*, 2016:50). Gwary *et al.* (2016:51) argues that PPPs can potentially improve extension service delivery because the government and the private sector can collaborate by providing resources and expertise to improve and manage extension activities. Despite the growing acknowledgement of the value of PPPs in agriculture, very few arrangements of this nature exist in developing countries and those that do are largely experimental, and they form a new field of practice and inquiry (Ferroni & Castle, 2011:1065).

This chapter is structured into five sections: section one presents the principal-agent theory and how it relates to the study. The second section covers the pluralist model of extension, which complements the agency theory and is considered as a new appropriate framework of delivering advisory services. Section three examines different PPP structures and proposes a suitable structure for extension services. The last section presents the conceptual framework guiding this study.

2.2 The Principal-Agent Theory

This study applies the principal-agent theory (agency theory) as a framework to analyse the probable effects of agency problems that may develop as a result of contracting agents and

the probable implications to the public private-partnership. The theory is, therefore, used to explore the challenges of agency problems in contract arrangements. The principal-agent theory is a model where the principal delegates tasks to the agent (Babayan & Kadlečíková, 2016:315; Roach, 2016:29), which Hlaváček and Hlaváček (2006:18) refers to as a principal striking a bargain with an agent. This culminates into an agency relationship where an agent acts for, or on behalf, or as a representative for the principal (Shankman, 1999:321; Turner, 2004:75; Müller & Turner, 2005:398; Babayan & Kadlečíková, 2016:316). In this study, the NAADS programme is the principal representing the public sector and the Private Extension Worker/Agricultural Advisory Service Provider (AASP)/Private Service Provider (PSP) is the agent representing the private sector.

The principal chooses an agent who has the competencies to undertake the task which the principal may not have. However, during the agent selection process, there may be hidden characteristics, intentions and actions which may not be easily monitored by the principal and yet they are critical in selecting and determining the agent's compensation (Saam, 2007:824; Poulton & Macartney, 2012:99). This implies, therefore, that there is asymmetric information in the agency relationship usually favouring one party, which may result to adverse selection. Often times, the principal and agent are not well aligned in terms of access to the same information, and the principal may not know why the agent makes certain choices and actions, and whether they are making the most appropriate actions on their behalf (Müller & Turner, 2005:398). For example, during the process of delivering technical agricultural information to farmers, the principal may not know the level of individual knowledge sharing behaviour and why they chose a given approach in providing technical assistance; especially if the approach is in the interest of the principal.

In addition, the agency theory assumes that both the principal and agent may have their own divergent interests (goal conflicts) thereby driving the agent to secure their interests by prioritising what they consider paramount for themselves. They thus only do what is appropriate for the principal if their interests are aligned. The agent may decide to work less or even shirk but pretend to be working hard, something the principal may not be able to detect. This disorder results into self-seeking where the actors may cheat, disguise, mislead, or distort as they engage in the agency relationship (Wright *et al.*, 2001:415). An agency relationship with information asymmetry and divergent interests results into a moral hazard – a situation where the principal loses the ability to control the agent's actions because no one

is able to verify the value of the agent's actions (Babayan & Kadlečíková, 2016:316). In this situation, the principal and agent are inspired to conduct themselves in a manner that benefits one party (Roach, 2016:31). Wright *et al.* (2001:415) posits that adverse selection or moral hazard will give rise to self-interest even where the project has instituted strong incentives and monitoring systems. This discussion suggests that the agency relationship is not immune to challenges which may influence the role, behaviour, expectations, interests, outcomes, information, resources and control mechanisms.

Quinn and Jones (1995:34) argue that one of the tenets that makes the principal-agent relationship hold, and which addresses the agency problems, is honouring agreements. Therefore, the principal-agent relationship should be bound by a contract which Schieg (2008) refers to as bureaucratic control (Shankman, 1999:328). The contract, whether outcome or behaviour based, creates a conducive environment that enables collaboration and cooperation, and it facilitates control of the agent's behaviour. The contract also ensures that all decisions and actions are made and aligned for the benefit of the principal's objectives (Turner, 2004; Müller & Turner, 2005:399; Saam, 2007:828; Babayan & Kadlečíková, 2016:317). Roach (2016:30) contextualises contracts within the public sector framework for contingent employees (who act as agents), emphasising that they should outline services to be rendered, tasks to be accomplished and deadlines required, performance evaluation criteria to be used, measurement of inputs, outputs and outcomes, and details of salary and other compensation schedules (Leruth & Paul, 2007:6).

It should, however, be noted that having a binding contract is one thing but operating an effective contract is another. Bergen *et al.* (1992:5); Hueth and Hennessy (2002:7) concur that for a contract to be effective, it should satisfy the agent's interests in such a way that they lure the agent to undertake the project. In addition, the contract should satisfy incentive compatibility; that is, the actions with the highest payoff to the agent are also the actions that are most appropriate from the principal's point of view. A non-incentive compatible contract may drive the agent to undertake actions of less value to the principal (Bergen *et al.*, 1992:5). Therefore, the reward system should ensure that incentives are appropriate enough to motivate the agent to pursue outcomes compatible with the principal's goal (Bergen *et al.*, 1992:4; Saam, 2007:828; Wang & Lv, 2017:4).

Monitoring systems are considered important in the principal-agent contract particularly because they specify how the agent will be evaluated, but they also allow the principal to collect information on the agent's activities thus managing the agent's behaviour (Bergen *et al.*, 1992:4; Saam, 2007:828). However, developing effective contracts is still a primary concern with scholars continuing to pay attention to agency problems and the effectiveness of the contracts, incentives and appropriate monitoring systems for agents in the agency model (Wright *et al.*, 2001:415). This implies that there is no standardized contract which addresses all the agency problems. Therefore, there is need to continuously develop and refine contracts, incentives and monitoring systems for agents (Wright *et al.*, 2001:416).

Some studies have argued that the principal-agent theory has been replaced by the public choice theory of public administration (Basheka & Tshombe, 2017:4). However, Public choice emphasises individual rationality in making prudent and consistent decisions on collective action problems based on their perception about the world with the expectation of yielding the greatest benefit or satisfaction (Farber, 2014:2-3). Russell and Nicholson (2016:8) point out that the public choice theory has not been successful in guiding public goods provision. In the PPP context, the principal-agent theory is therefore still an appropriate theory for explaining the relationship between the public sector and the private sector.

The agency theory presents insights which are relevant to this study regarding review of the nature of PPP contracts, and the management structures that are critical for inducing agents to behave in a manner consistent with the principal. The theory provides logical forecasts about what individuals may do if placed in an agency relationship. It is worth noting that the principal-agent relationship faces many other conflicts beyond the agency problems in the theory, some of which are linked to the context of the project environment. Therefore, the scope of the contract needs to be broadened beyond what is implied in the economic relationship of the principal and agent.

Scholars like Shankman (1999:332) propose recognition of other stakeholders in a principal-agent relationship since they also play a key role in shaping the agent's tasks and realizing the principal's objectives. It is not surprising that some developing countries have shifted to the pluralist extension model, which recognizes the role of other actors (the private sector) in the

provision of agricultural advisory services. Section 2.2 reviews the pluralist/partnership extension model to guide the design of a new extension model.

2.3 Pluralist/Partnership Extension Model

It is imperative to note that PPPs aim at shaping relations between parties by defining which sector is better placed to take on risk and deliver maximum results (Aneta & Ewa, 2007). The rationale for the pluralistic extension model is that the public or national agricultural extension systems, have proved to be very expensive and unsustainable (Saliu *et al.*, 2009:72; Davis, 2008:18; Swanson & Rajalahti, 2010:37). In developing countries, governments have become overwhelmed because they have very limited resources and the political will to invest in public sector and NGOs (Swanson & Samy, 2002:6; Ladele, 2011:3). In Africa, for example, this has triggered a paradigm shift from purely public services to more private sector involvement in agricultural extension. Some experts point out that extension programmes especially in developing countries will continue deteriorating if governments and other actors fail to recognize and appreciate the emerging role of the private sector in providing an integrated package in production of inputs, technical information and advisory services to all types of farmers (Swanson & Samy, 2002:6; Swanson & Rajalahti, 2010:41).

The partnership model observes that alternatives to extension have shifted from just diversity of methods to one of many institutional options in delivery of agricultural extension, thus making other stakeholders important replacements in supporting farmers (Swanson & Samy, 2002:5; Ladele, 2011:3). This means that the model not only attracts new players but also seeks diversity in terms of partner objective and line of business (Samii *et al.*, 2002:995).

The pluralistic model is consistent with the United Nations Industrial Development (UNIDO) partnership model (1998) which aims at identifying ways and means to initiate a dialogue and working relationship with the private sector as a means of innovating new approaches to development (Samii *et al.*, 2002:993). The promoters of the partnership model commend adoption of multi-dimensional strategies in organizing extension programmes in developing countries (Swanson & Samy, 2002:6). The key stakeholders under the pluralistic/partnership extension framework may include farmers, input dealers, NGOs, cooperatives, banks, training organizations, the private sector and even government (Saliu *et al.*, 2009:75). The model highlights the prerequisites for partners to ensure that the mutual benefits from the partnership exceed those achieved through individual activities. According to Ladele, such

benefits include “technology transfer, input and credit linkages, farmer mobilization, technical empowerment, market linkages, quality control, lower production costs, risk-sharing, enhancement of income and improved level of services” (Ladele, 2011:4).

Under the partnership extension framework, participating actors are encouraged to craft innovative ways of working together in order to serve the long term societal interests and development goals (Swanson & Samy, 2002:6). This may be achieved through each stakeholder in the partnership capitalizing on their respective comparative advantages in supporting the extension projects. Swanson & Samy (2002:6) & Samii *et al.*, (2002:997) note that this may avert the challenge of overlapping and duplicating activities that are likely to result from inter-institutional conflicts. In addition, stakeholders in the partnership must comprehend their roles, responsibilities and assignments. They must also clearly understand the implications if they fail to deliver (Ladele, 2011:4; Ladele & Ayoola, 2011:76). This helps partners to identify their strategic fit prior to commencement of extension interventions, take ownership and ensure timely planning and allocation of required resources for successful implementation of the project (Samii *et al.*, 2002:997; Swanson & Rajalahti, 2010:36).

Under the partnership extension framework, partners are bound by a Memorandum of Understanding (MOU), which stipulates resources and commitments of each stakeholder. The MOU not only acts as the legal framework for partnership but it also highlights the flexibility and specific roles of all members based on their competences and needs (Ladele 2011:4; Samii *et al.*, 2002:997). Just like the agency model, the pluralist model also promotes performance and results in order for the partnership to deliver quality services (Swanson & Samy, 2002:6). The partnership extension model has been applied to some extension projects in countries such as Uganda, Kenya, Rwanda, Ghana, Mozambique and Malawi (Davis, 2008:22). It has also been observed that while different countries have adopted the model, the operational framework and nomenclature is different and diverse (Davis, 2008:21). For instance, in Nigeria the model as packaged by Farm and Infrastructure Foundation (FIF) is called Commodity Alliance Model or Business Partnership Model (BPM) where the private sector operates strictly for business and profit (Ladele, 2011:3). Other jurisdictions like Mozambique have used the model as a contract with private actors who include NGOs, consultancy firms, private firms, and training organizations (Saliu *et al.*, 2009:76; Swanson & Rajalahti, 2010:3&43). Swanson & Rajalahti (2010:37) notes that NGOs and private sector

firms are more effective in implementing donor funded projects, compared to public extension agencies.

One of the advantages of the partnership model is that if managed well, it creates a learning platform for all members participating in the partnership through knowledge sharing and adoption of innovative solutions and approaches. The model also generates commitment from the partners since they are collectively engaged in defining the scope, duration, activities, goals and milestones of the project (Samii *et al.*, 2002:998). The model, according to Ladele (2011:4), empowers farmers through competition of stakeholders to make choices of different actors based on the quality of service provided. The critics of the partnership model have faulted it for having issues of poor coordination and regulation given the increased number of players and stakeholders. Inadequate flow of information and high prices for services offered have also been cited by some experts (Davis, 2008:21). The partnership model also creates some cracks in sustainability of services especially where service providers heavily depend on donor funds, instead of demand driven business actors whose desire is to make profit. This implies that when the donors cease supporting the provision of extension services, the programme will crumble.

The partnership extension model is vital to this study because it offers guidance on the agricultural extension ecosystem, thereby illuminating the researcher's insights into the key areas that should be covered when identifying gaps that led to PPP challenges in the NAADS extension system. The gaps identified will be used to innovatively develop a new model which may inform implementation of future agricultural extension interventions. However, while the agency theory and partnership model point out the need for performance based contracts and MOU respectively, the available literature does not offer adequate information on the type of contract appropriate for PPPs in agricultural extension. Most of the literature focuses on the implementation framework of PPPs in agricultural extension without explicitly highlighting the PPP contract model or structure being executed. In addition, literature does not provide a harmonized position on the type of PPP contract that fits agricultural extension. This study, therefore, reviews the different PPP models in order to identify appropriate characteristics for a PPP contract in agricultural extension.

2.4 PPP contract types and the tenets of an appropriate structure for agricultural extension

Farquharson and Yescombe (2011:9) & Bouman *et al.* (2013:11) highlight that PPP models are contractual arrangements of varied nature where the public and private sector share rights and responsibilities during the duration of the contract. Some scholarly and practitioner debates point out that the contractual arrangements are differentiated among others by the extent of private sector risk, the role of the private actors, how the private party is paid, the type of asset (new or old) and the type of project being proposed (Farquharson & Yescombe, 2011:9; Gibson *et al.*, 2015:16; WB, 2017a) & (ADB *et al.* 2014:18). Some PPPs involve green field projects or financing, building and managing new public assets, while others transfer responsibility for upgrading and managing existing assets to the private sector often referred to as “brownfield projects.”

Delmon (2010:15) points out that there is no universally agreed position on the most suitable approach or model for PPPs. While there are diverse PPP projects which have registered successes and contributed towards value addition, it is not plausible to point out that one PPP type or model is necessarily more universally appropriate than another. The public sector, therefore, faces a predicament of identifying the appropriate PPP arrangement or form to adopt. Delmon (2010:9) underscores the challenges in comparing PPP structures in different countries and sectors because similar structures often use different nomenclature, while unrelated projects may use similar nomenclature. This is because no attempt has been made over the last two decades to integrate the general and agriculture management literature in order to provide a holistic view of PPPs in agricultural service delivery (Delmon, 2010:5; Roehrich *et al.*, 2014:110). Consequently, there is fragmented literature and a limited systematic approach to PPP models or contract types which has occasionally resulted into inconsistency and confusion across national, regional divides, and sectors and this complicates PPP studies (Delmon, 2010:5-8; Roehrich *et al.*, 2014:111; Mouraviev *et al.*, 2016:157).

Delmon (2010:9) & Mouraviev *et al.* (2016:156) recommend harmonisation of terminologies and concepts especially those that have already been extensively discussed at the global level. The harmonisation will not only simplify dialogue between policy makers and practitioners but will also allow comparison of practice across nations thereby benefiting from experiences of other economies. In addition, Delmon (2010:8) recommends that policy makers should

conduct a comprehensive analysis of the commercial and financial viability of the potential PPP types focusing among others on cost-benefit, value for money, sources of finance, commercial arrangements, as well as the nature of investors and government participants before adopting a specific model. Delmon (2010:8) & Farquharson and Yescombe (2011:5) agree that the success of PPP projects depends on firm policy foundations, a long-term political commitment, and a sound and predictable institutional, legal and regulatory framework.

This literature review focuses on swotting literature broadly on PPP models or structures, and analysing scholarly and development partner debates on different PPP approaches. The literature review process adopted an exploratory analysis of the global operations and definitions of different PPP structures while investigating their linkages to agricultural extension. This approach is appropriate because PPPs in developing countries are quite new and there is still paucity of PPP literature (Mouraviev et al., 2016:169). The literature, therefore, covers various meanings attached to a PPP in Western literature, it contrasts and compares them and identifies commonalities and differences between them. Additionally, the literature surveys the understanding of what PPPs are. The analysis guided the researcher in identifying some gaps in the operationalization of the NAADS PPP under study. The PPP models discussed below describe the different partnership agreements between public and private sectors. Many PPP studies ignore assessing stakeholder understanding of the PPP structures they are implementing.

2.4.1 Service Contract

A service contract is a PPP model where government or public sector hires a private company or entity to carry out one or more specified tasks or services for a period, typically 1 to 3 years. These contracts aim at exploiting private sector skills, innovation and management competencies to boost time and cost efficiencies in delivery of public services (Abdel Aziz, 2007:918). According to Renda and Schrefler (2006:8), service contracts are particularly suited for simple, short-term operational requirements where the service can be clearly defined in the contract, the level of demand is reasonably certain, and performance can be monitored easily. Under the service contract, the public authority remains the primary provider of the infrastructure service and contracts out only portions of its operation to the private partner (ADB, 2008:29). In addition, the private party agrees to offer services at a pre-

determined cost and must adhere to the performance standards set by the public sector (ADB, 2008:29; Bouman *et al.*, 2013:18).

ADB (2008:29) adds that governments generally use competitive bidding procedures to award service contracts, and is responsible for funding any capital investments required to expand or improve the system. In a pure service (and management) contract PPP, there are two main reward options. In one, the private sector may invoice directly (or indirectly through various forms of state guarantees) the public sector and is paid irrespective of the demand for services, thus the public sector bearing a higher commercial risk. In the other, the private provider is paid according to effective results, either directly by the level of end user demand or indirectly through performance-based subsidies from the public sector. In this case the main commercial risks are born by the private sector (Warner *et al.*, 2008:12).

In addition, Service contracts provide a relatively low-risk option for expanding the role of the private sector. Service contracts can have a quick and substantial impact on system operation and efficiency, and provide a vehicle for technology transfer and development of managerial capacity (ADB, 2008:29). Furthermore, this model allows the public sector to benefit from the technical expertise of the private operator and obtains some cost savings, without transferring control over the quality of outputs. Service contracts are commonly used for toll collection services, provision and maintenance of vehicles, or other technical activities (Renda & Schrefler, 2006:8). Service contracts have been adopted in the provision of extension services in India and Chile (Swanson & Rajalahti, 2010:18), and many other Latin American countries (Warner *et al.*, 2008:53). However, most of the cases related to provision of extension services do not provide details or characteristics of the PPP contract type. In Uganda, the NAADS programme contracted private extension workers under a PPP structure with characteristics typical of a service contract to support farmers with advisory services. While service contracts are believed to improve efficiency, they are also deemed unsuitable if the main objective is to attract capital investment. It is actually envisaged that the efficiency of the contractor under the service contract is likely to be affected if public financing does not materialize. The sustainability of activities under a service contract lies in balance if the public sector remains in charge of tariff setting and assets (ADB, 2008:29).

2.4.2 Management or Operation and Maintenance Contracts

A management or operation and maintenance (O&M) contract is a PPP arrangement where a private entity provides some operation and maintenance services for a fee, usually based on delivering satisfactory services (Kwak *et al.*, 2009:54). Gwary *et al.* (2016:52) defines the model as an operation licence where the private entity is granted a license under an agreement to operate a public utility for a specific period. Often, the private entity under this PPP arrangement is paid a pre-determined rate by the public sector for labour and other anticipated operating costs (Delmon, 2011:135; Bouman *et al.*, 2013:18). Bouman *et al.* (2013:18) augments that an additional amount for achieving pre-determined targets may be paid to the contractor or the management contractor in form of profit sharing. Just like the service contract, the obligation for service provision and major capital investment remains in the public sector, while daily management control and authority is assigned to the private partner or contractor (Bouman *et al.*, 2013:18). ADB (2008:31) further observes that often, the private partner provides working capital but no financing for investment. Delmon (2011:135) adds that the role of the private entity is essentially to protect the revenue stream of the project delivered.

Where the management contracts are performance-based, the private entity usually takes on more risk; for instance, the risk of asset condition and replacement of more minor components and equipment (WB, 2017a). Performance based incentives not only provide strong incentives to the private sector in the management of assets but they also ensure the greatest value for money is obtained by the government and end-users (Thomas Ng & Wong, 2007:915-916). The effectiveness of the performance-based incentives depends on reasonable and achievable performance benchmarks.

Management contracts are believed to reap from operational gains that result from private sector management without transferring the assets to the private sector. The contracts are less difficult to develop and easier to manage. Management contracts can also be seen as interim arrangements, allowing for modest improvements while more comprehensive contracts and structures are developed. Similarly, a management contract can be structured to phase-in increasingly extensive involvement of the private sector over time and as progress is demonstrated (Renda & Schrefler, 2006:8; ADB, 2008:32). In the agribusiness sector, management contracts are reportedly often used for running plantations and agro-processing facilities for products such as tea, rubber and sugar. Some agribusiness companies offer both

managerial and technical assistance (Warner *et al.*, 2008:53; Shukla *et al.*, 2016:114). For instance, in 2010 the Government of Uganda constructed Merikit Market with support from International Fund for Agricultural Development (IFAD) and African Development Bank (AfDB). The operation and management of the market was then contracted to a private individual through competitive bidding to ensure proper management and revenue generation from the market.

Delmon (2011:135-138) is concerned about risk allocation under the O&M arrangement which, according to him, is generally not as clear as under a build contract. There is also the risk that the private management contractor does not enjoy the autonomy or the authority required to achieve deep and lasting change. This creates a gap between the obligation for service, management, financing and expansion planning (ADB, 2008:32). Equally, the O&M may not provide a pricing structure that is as fixed or certain as a build project. The private sector is, therefore, in a very sensitive position as the operator of a public service. If the operator is paid a portion of profits or given an incentive payment, controls should be in place to prevent inflation of reported achievements or deficient maintenance of the system to increase profits (ADB, 2008:32)

2.4.3 Design and Build (DB)

In a design and build (DB) model, the private entity designs and builds an infrastructure to meet the need of the public entity for a fee. On completion of the project, the public entity assumes full responsibility for its operation, invariably transferring the risks of cost overruns to the private entity (Gwary *et al.*, 2016:52).

2.4.4 Design–Build–Finance (DBF)

PPPs adopting the Design-Build-Finance model (DBF) involve the private partner providing the necessary capital investment for a new plant or infrastructure facility and is generally repaid by the public sector in a series of instalments funded by taxes, fees, or tolls. DBF projects are typically short-term financing arrangements, ending 5–7 years after construction. They spread out payments for a large project in order to make them more affordable (USDOT, 2014:2).

2.4.5 Build-Operate-Transfer (BOT)

The Build-Operate-Transfer model is a type of PPP where the private entity has the sole responsibility for financing, designing, building and operating a processing plant or other infrastructure works according to performance standards set by the public sector or government (Gwary *et al.*, 2016:52; Shukla *et al.*, 2016:113). The period within which the private sector operates the project is long enough to pay off construction costs and make profit. The ownership of the asset is finally transferred to the public entity after a concession period (Kwak *et al.*, 2009:54; Gwary *et al.*, 2016:52). These contracts are usually designed to attract private investment in construction of new plants or infrastructure facilities. This model is considered common in road and highway projects (Shukla *et al.*, 2016:113). BOTs are relatively not very common in developing countries, because private sector potential to mobile capital is low (Warner *et al.*, 2008:52). BOT just like BOOT concessions are generally applied where there is envisaged advance in user demand for the infrastructure or facility, for example, a toll road or market. It should, however, be noted that the private sector in developing countries has largely not been attracted to development of rural infrastructure despite the importance of timely and reliable rural road infrastructure that links small holder farmers to markets or processing – a key factor for agricultural growth (Shukla *et al.*, 2016:115).

2.4.6 Build-Own-Operate (BOO)

In this type of PPP, the private entity finances, builds, owns, and operates an infrastructure in perpetuity, while the public entity provides avenues for delivering the facility or project (Warner *et al.*, 2008:52; Gwary *et al.*, 2016:52). The control and ownership of the project lies with the private sector. In China, a BOO contract was formed to establish a Flower exhibition, production, logistics and trading centre. The private partners (Beijing Shunxin Agricultural Company and its subsidiary, Beijing Shunxin Maofeng Flower Logistic Company, formed for managing the construction and operation of the flower centre) were responsible for constructing and operating the flower centre, while the public sector (Government of Shunyi District and Beijing Municipality) helped the company to obtain the necessary land rights and, in return, could use all the buildings and facilities of the centre free of charge during the Seventh China Flower Expo in 2009. The incentives for the private sector included land concession, tax holidays, a one-off award of 3–5% of private investment in the first year, and subsidies for greenhouse construction (FAO, 2016:76-79).

2.4.7 Build-Own-Operate-Transfer (BOOT)

While Build–Own–Operate–Transfer (BOOT) bears characteristics of BOO and BOT, the main difference is that under BOOT, the private entity introduces a service charge throughout the concession period before the facility is handed over to the public entity in perpetuity (Gwary *et al.*, 2016:52). Gwary *et al.* (2016:52) observes that BOOT is similar to Design–Build–Finance–Maintain (DBFM) where the private entity designs, builds and funds a project and thereafter carries out maintenance works as part of the contractual obligations before transferring it to the public entity. On the other hand, USDOT (2014:2) equates BOOT to Design, Build, Finance, Operate, and Maintain (DBFOM) where the private partner additionally agrees to perform operations and carry out maintenance on the assets for a specific period. The private sector role under DBFOM thus encompasses the elements of the Design Build Finance (DBF) structure and also includes operations and maintenance performed by private firms. Also, the private sector finances, builds and operates an asset or facility or other infrastructure works according to performance standards set by government. The operations period is long enough to allow the private company to pay off the construction costs and realize a profit. At the end of the agreed period the public sector buys back or leases the completed facilities from the private investors. The government retains ownership of the facilities and becomes both the customer and the regulator of the service (Warner *et al.*, 2008:52). The contract stipulates private up-front and on-going expenses repayments. Options for repayments may include future tolls or other fees charged on users of the facility (USDOT, 2014:2).

Unlike USDOT (2014:2) which integrates DBFOM with DBFM, Gwary *et al.* (2016:52) splits them into two; that is, DBFM as explained above and DBFO where the private entity funds the project by way of debt financing or lending while operating the facility during the concession period before transferring it to the public entity (IMF, 2004:7).

2.4.7 Affermage and Leases

Leases and affermage are generally short or long term PPP arrangements where a private entity can design and build or refurbish, operate and maintain a service usually delivered directly to consumers, and the public sector finances any major capital investments (Warner *et al.*, 2008:53; Delmon, 2010:12; Farquharson & Yescombe, 2011:10; WB, 2017a). This structure is commonly adopted when the public sector wants to combine public financing with private efficiency. Under this arrangement, the responsibility for financing the

investments rests with the public sector (Delmon, 2010:12; WB, 2017a). Warner *et al.* (2008:53) argue that the advantage of leasing over sale is that leasing allows the lessee to finance only working capital requirements rather than having to find finance to purchase fixed assets. Bouman *et al.* (2013:18) and ADB (2008:33) argue that under a lease contract, the financial risk for operation and maintenance is borne entirely by the private sector operator and that the duration of the leasing contract is typically for 10 years and may be renewed for up to 20 years.

The Government of Kenya (GOK) took the form of leasing contracts to promote food security through operationalizing a grain warehouse within the framework of the warehouse receipt system (WRS). The GOK, through the MOA, was committed to developing a WRS and an appropriate legal framework to support it, and provided its own facilities and expertise to private operators through the National Cereals and Produce Board. The Government leased public warehouses to private operators in the framework of public–private collaboration that engaged other stakeholders, including the regulatory/supervisory agency of the Eastern Africa Grain Council (EAGC), depositors (farmers), private financial institutions and various development partners. The duration of lease contracts was five to ten years. The private warehouse operators were in charge of operating the (public-owned) warehouses and participating in the Warehouse Receipt System (WRS). They also invested in upgrading existing infrastructure (through unvalued, in-kind contributions) to meet the criteria specified by the regulator (FAO, 2016:76-79).

According to ADB (2008:33), an affermage is similar but not identical to a lease contract. Unlike a lease where the private sector retains revenue collected from consumers and makes a specified lease payment to the public sector, an affermage allows the private sector to collect revenue from the consumers, pay the contracting authority an affermage fee, and retain the remaining revenue (Delmon, 2010:12; WB, 2017a). The affermage can be more appealing to the private partner because it reduces some risks associated with low-cost recovery in sales. The affermage fee is typically an agreed rate per unit sold. Delmon (2011:10) further argues that while some scholarly debates agree that the private sector does not have any obligations to make capital investments in affermage arrangements, others argue that these agreements can include an obligation to make capital investments, so long as the cost of the investment can be recovered during the lifetime of the agreement.

Lease and affermage contracts have the advantage of bringing in revenue collected from consumers, which motivates the private sector to target higher levels of efficiency and returns. On the other hand, the private sector may concentrate on increasing profits thereby running the risk of reducing the level of maintenance especially on long-lived assets (ADB, 2008:34).

2.4.8 Concessions

A concession is a PPP structure where the public sector grants a concession or series of rights to the private contractor to construct or renovate and operate an asset for a pre-determined period (usually 20 and 30 years) referred to as a concession period (Kwak *et al.*, 2009:53; Delmon, 2011:118; Mouraviev *et al.*, 2016:164). Under this arrangement, a concessionaire (private entity) can assume the responsibility to finance, build and operate a service usually delivered directly to consumers (Delmon, 2010:12; WB, 2017a). Yescombe (2007:5) classifies the concession model as a ‘user pays’ model where the concessionaire is endorsed to charge the general public service fees for using the asset (Mouraviev & Kakabadse, 2017:11). The fees reimburse the concessionaire for the cost of building and operating the asset. The ownership of the asset remains the responsibility of the public sector with assets usually returning to the public sector at the end of the concession period, including assets purchased by the concessionaire (Yescombe, 2007:5; USDOT, 2014:2; WB, 2017a). In a concession, the concessionaire typically obtains most of the revenues directly from the consumer and so it has a direct relationship with the consumer. The concessionaire pays a concession fee to the public sector which usually may be used towards asset replacement and expansion (WB, 2017a). The role of the public sector in concessions is to create an enabling environment under which the concessionaire operates, and to ensure that the terms of the concession are met (Yescombe, 2007:5; Warner *et al.*, 2008:53). The public sector’s role shifts from being the provider of the service to being the regulator of its price and service quality (Shukla *et al.*, 2016:114).

In general, output based PPP projects such as Build-Operate-Transfer (BOT) and Design-Build-Operate (DBO) projects, which involve significant design, construction and long term operations, as well as new build (greenfield) or projects involving significant refurbishment and extension (brownfield), are all classified as concessions in common law countries (WB, 2017a). The difference between BOT and DBO concessions is that under the BOT, the private entity or operator generally obtains revenues through a fee charged to the government

rather than tariffs charged to consumers. Under the DBO, the private entity designs, builds and operates the assets to meet certain agreed outputs and is paid a sum for designing and building the asset, which is payable in instalments on completion of construction milestones, and then an operating fee is charged for the operating period. The operator is responsible for the design, construction as well as operations and if parts need to be replaced during the operations period prior to its assumed life span, the private entity is likely to be responsible for replacement (WB, 2017a). Although a concession makes the concessionaire responsible for the full delivery of services in a specified area, including operation, maintenance, collection, management, and construction and rehabilitation of the system, the public sector is responsible for establishing performance standards and ensuring that the concessionaire meets them (Bouman et al., 2013:19).

Concessions are considered an effective way to attract private finance required to fund new construction or rehabilitate existing facilities. In addition, they provide incentives to the operator to achieve improved levels of efficiency and effectiveness since gains in efficiency translate into increased profits and returns to the concessionaire. Furthermore, transfer of the full package of operating and financing responsibilities enables the concessionaire to prioritize and innovate as deemed most effective (ADB, 2008:36). Concession contracts, on the other hand, have complexities in defining the private sector's activities and anticipating events and risks over the 25 year period. Periodic reviews of certain contract terms in the context of the evolving environment may be an ideal solution to this challenge (ADB, 2008:37).

2.4.9 Joint Venture

A joint venture is a contract agreement where the public and private sector partners can either form a new company or assume joint ownership of an existing company through a sale of shares to one or several private investors (WB, 2017a). Both public and private partners invest in the company and share risks (Bouman et al., 2013:19; Mouraviev et al., 2016:161). A joint venture may also take the form of a contractual consortium arrangement in which the parties contract to work together on a specific project. Each party is remunerated for specific services provided to the consortium and no separate legal entity is created (WB, 2017a).

The uniqueness of a joint venture, also classified by Hall (2008:3) & Mouraviev et al. (2016:161) as Institutional Public Private Partnerships (IPPPs), is that the joint venture

company does not provide a service on behalf of a public agency when government directly owns part of this business; instead, it becomes a semi-government company. Depending on the government share of property ownership, customers may view a joint venture company as mostly private or, on the contrary, as mostly government-owned. Therefore WB (2017a) suggests that before a public entity enters into a joint venture, it is important for government to establish that it is empowered to do so under law. Hall (2008:3) notes that joint ventures may operate public services without having had to compete for a formally tendered contract, especially where they originated as municipal companies, or where a service was “delegated” without tendering.

In Philippines, a corporate joint venture model was adopted where a joint PPP company with the legal status of a private corporation (the Nueva Vizcaya Agricultural Terminal – NVAT Inc.) was established to build and operate a provincial trade terminal market for fruits, vegetables and spices. The Department of Agriculture provided financing to the NVAT Inc. and raised all the necessary funds through sale of shares to private partners who included farmer cooperatives, SMEs and individuals who then became co-owners with the public sector (FAO, 2016:76-79). FAO (2016:76) notes that Build-Operate-Transfer (BOT), Build-Operate-Own (BOO), Design-Build-Operate (DBO), leasing, concessions, joint ventures, and management contracts are commonly used in developing agricultural market infrastructure.

2.5 Conceptual Framework

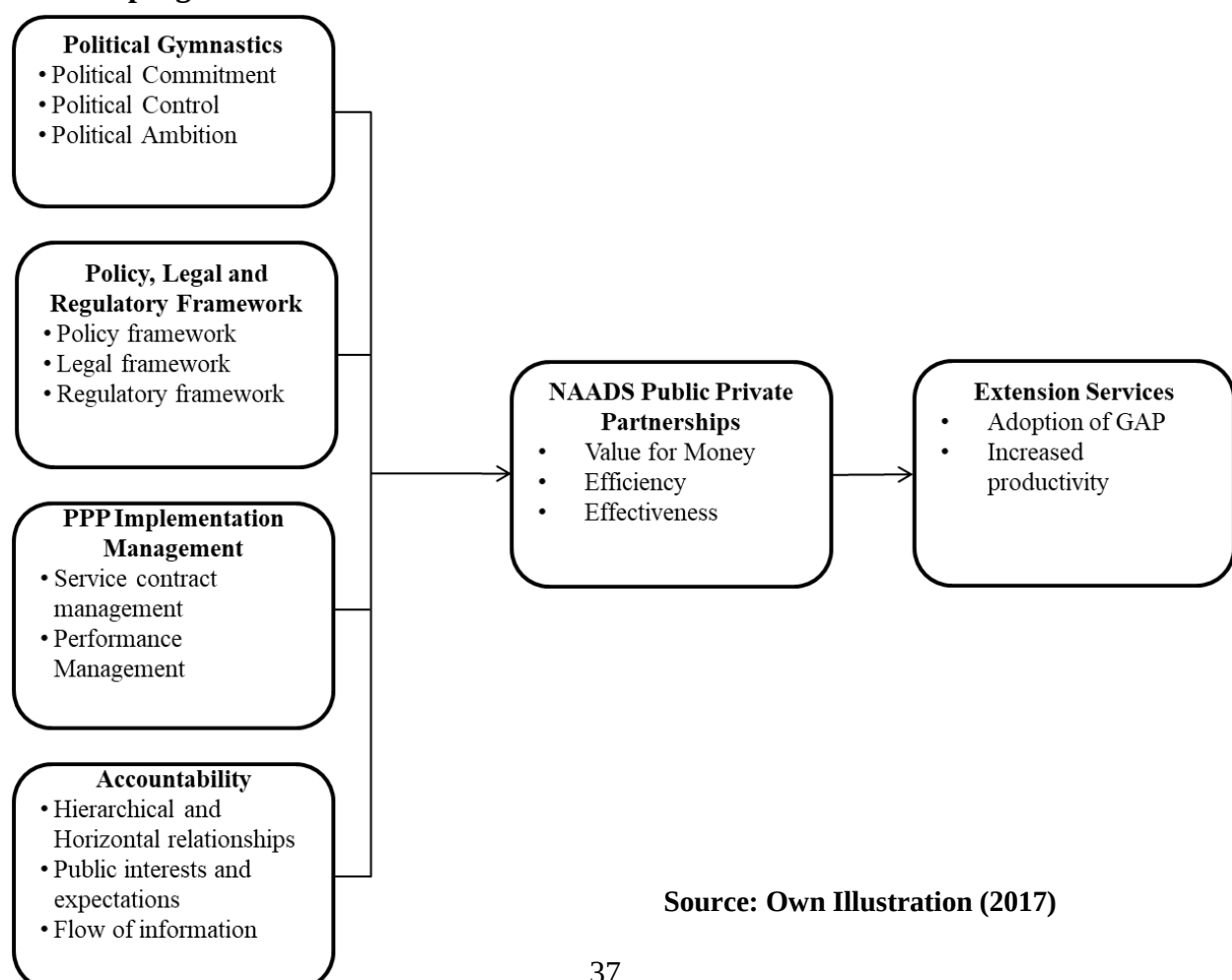
This conceptual framework provides an understanding of the possible variables that affect a PPP in agricultural extension. The development of the conceptual framework adopted a generic and comprehensive review of literature on PPPs. This was due to the limited studies on PPPs in agricultural extension. Literature suggests that the political environment is a critical element for realising a successful PPP (Gawel, 2011:10; Carpintero & Siemiatycki, 2016:159). The political environment is conceptualised as political commitment, political control (Gawel, 2011:14) and political ambition. Scholars denote that strong political commitment is likely to translate in PPPs that improve service delivery (Heaver, 2005:7). In addition, political control and political ambition may influence the success of PPP planning and implementation (Gawel, 2011:16; Carpintero & Siemiatycki, 2016:166).

Scholars and practitioners have also highlighted policy, legal and regulatory frameworks as key in establishing and managing PPPs because they provide a clear operational arrangement

which not only facilitates a cordial relationship between partners but also aids value for money from the PPPs (Mouraviev & Kakabadse, 2015:5). However, while managing PPP implementation is an important factor, few studies emphasize it. PPP implementation management is conceptualised as service contract management and performance management.

It is perceived that private sector involvement in public services delivery is bound to produce better results and improved accountability to the citizens (Grossi & Thomasson, 2015:606). However studies reveal that there is still confusion in accountability debates which affects the design of a consistent accountability framework for PPPs (Bovens, 2010:947-949). While there may be many other dimensions, this study conceptualised accountability in terms of hierarchical and horizontal relations, the ability to meet public interests and expectations and flow of information. The conceptual framework is used to guide the study in identifying the challenges embedded within the framework and how they affected the PPP under the NAADS extension system.

Figure 1: Conceptual Framework for identifying the challenges of PPP under the NAADS programme



A review of literature shows that it is not possible to divorce politics from PPPs. Most of the available literature highlights the importance of political commitment towards PPP projects and it suggests that poor commitment is likely to affect PPP projects and vice versa. The study, therefore, attempts to discover how politics directs the PPP path. The study attempted to broaden the political environment to establish how political control and ambition interplays in directing PPP projects. In addition studies show that the success of PPPs depends on a strong enabling environment that facilitates private sector investment and engagement. The enabling environment has generally been conceptualised as the policy, legal and regulatory framework (Pongsiri, 2002:489; Mouraviev & Kakabadse, 2015:5-6). Scholars suggest that a poor enabling environment discourages private sector investment and innovation and vice versa. However, few studies have examined reasons why PPP implementation management is critical for effectiveness and efficiency of PPP projects.

This study considers a qualitative value for money analysis which tries to ascertain whether the proposed PPP project is suitable and whether the requisite conditions are in place to facilitate value for money (ADB *et al.*, 2014:132). Effectiveness denotes the ability of the PPP to deliver results through improvement in service delivery and meeting the needs and expectations of the target beneficiaries through access to timely and relevant extension services, which in turn translate into increased production and productivity.

It should be noted that PPPs in the agricultural sector are relatively new and there is limited literature on PPPs in the sector, specifically on agricultural extension services. Most of the literature captures information on infrastructural development, which means that the conceptualization is based on broader debates drawn from other sectors such as education, water and infrastructure. However, the study adopts the conceptualised ideas in order to explore that challenges that befell PPPs under the NAADS agricultural extension programme in Uganda. The conceptual framework is used to guide the development of an innovative and contextualized PPP model for agricultural extension.

Some studies reveal that the political environment influences the growth and survival of PPP in a given jurisdiction. The success of PPPs depends on how the political space influences the institutional and decision making framework (Gawel, 2011:3-4).

The next chapter (three) explores the political dynamics that were embedded in planning and implementation and how they facilitated the PPP in the NAADS extension system.

CHAPTER THREE

POLITICAL DYNAMICS AND HOW IT INFLUENCES PLANNING AND IMPLEMENTATION OF PPPS IN THE NAADS EXTENSION SYSTEM

3.1 Introduction

The evolution of PPPs requires exceptional but challenging forms of governance for both public and private sector actors (Teisman & Klijn, 2002:198; Verger & Moschetti, 2017:1). Scholarly literature reveals that PPP performance is to a significant extent influenced by the political context and decision making framework of different jurisdictions, making it difficult to divorce PPPs and politics (Vadali *et al.*, 2014:163; Verhoest *et al.*, 2015:120). Yescombe (2007:27) asserts that politics can sway the PPP programme off course if not handled appropriately. PPPs tend to drive the political appetite because they are believed to deliver quicker political promises like infrastructural development when compared to traditional public procurement systems. Therefore, if successful they tend to convince voters to support the politicians engaged in the PPP projects (Hodge & Greve, 2010:s15).

Carpintero and Siemiatycki (2016:160) argue that while PPPs should ideally be less influenced by political factors, this may not necessarily mean that they are excluded from political decision-making. Kort *et al.* (2016:778) notes that PPPs operate within an arm's length from the political decision making framework, in two dimensions. The two dimensions are disaggregation, which is the extent to which the agent (private sector) is independent but not entirely free to make their own choices. Autonomisation is the degree to which the agent has discretionary powers regarding the use of finances, project plans and organization structure. This implies that politics may have an influence on the investment decisions (Carpintero & Siemiatycki, 2016:160); for instance, determining the type of PPPs, how the PPPs will operate, in what areas and in what form PPPs are realized (Gawel, 2011:1). Carpintero and Siemiatycki (2016:159) argue that partisan politics has a hand in manipulating decisions on PPP approaches to consider, the beneficiaries and the nature of design and implementation of the PPPs. Furthermore, they point out that politics tends to concentrate services in important voting districts or constituencies which favour politicians.

Another school of thought asserts that PPPs may be used to advance political interests. Political actors can take advantage of the paradox in global PPP interpretations to promote

the positives in PPPs while omitting the negatives and camouflaging them in a way that yields local political gain (Hodge, 2006:319; Hodge & Greve, 2010:s10). The political framework may, therefore, become either a potential driver or barrier of PPP solutions.

Gawel (2011:4) argues that political decision makers tend to exert pressure on PPPs which serve their interests while they neglect those PPPs where they detect that the political net costs or losses are greater than the economic net gain. It is, therefore, not surprising that high profile and high cost PPP programmes tend to attract political interest and influence (Carpintero & Siemiatycki, 2016:165). The challenge is that it may result into a political bias where politicians are driven by the desire to satisfy the demand for public services in a vote winning way without necessarily focusing on economically viable solutions (Gawel, 2011:4&6). For instance, local politicians and bureaucrats may have incentives to award contracts to those that offer payment of kick-backs, finance election campaigns or provide other types of benefits (Feder *et al.*, 2011:37). Bird *et al.* (2003:8) argue that many institutions in African countries especially in Sub-Saharan Africa have been infiltrated by patrimonial practices of influencing the strategic and operational set-up of projects. For example, Malawi experienced a patron-client system where production of cash crops was restricted to large farms and individuals in the ruling government. Efforts to improve agriculture often benefited politically influential individuals and political supporters, some of whom did not even have a background to farming (Birner & Resnick, 2010:1443).

To avert this situation, Brinkerhoff and Brinkerhoff (2011:3) suggest that the PPP should nurture a cross-sectoral relationship where the public and private sectors commit to work towards competence and the greater good rather than partisan interests. Most of the PPP studies have focused on political commitment as a key success factor for PPP design and implementation. However, literature does not elaborate on how the political factors have contextually affected the principal-agent relationship under the NAADS agricultural extension programme. This chapter explores the political factors that account for gaps in the PPPs and it relates them to the NAADS programme in Uganda. The political dynamics are conceptualized under three themes. These include political commitment, control and ambition.

The study adopts both scholarly and practitioner literature because of the limited studies that have been conducted to analyse politics and PPPs. Most of the available literature highlights

the importance of political commitment without expounding on how it shapes PPP service delivery.

The first section in this chapter introduces the dynamics of politics and PPP implementation. The second, third and fourth sections discuss scholarly and practitioner debates on the themes of political commitment, control and ambition. Section five focuses on the methods used to collect and analyse data, while section six discusses study findings. The chapter ends with a conclusion and policy recommendations in section seven.

3.2 Political Commitment and its influence on PPP projects

Political commitment is considered one of the fundamental criteria for realizing government agenda. Brinkerhoff and Brinkerhoff (2011:3) propose that PPPs should adopt traits of mutuality that involve joint commitment to shared partnership goals. IMF (2004:15) and KPMG (2015:6), on the other hand, suggest that strong political commitment and good governance are prerequisites for successful PPPs. Calhoun (2009:168) and Ypi (2016:603) define commitment as a principle which:

inspires a partner in any relationship to act in a distinctive manner that allows them to create or maintain allegiance to projects they have started or are supporting regardless of any opposing forces that may destruct them against their pledge.

As Ypi (2016:601) puts it, political commitment means caring about the public good and actively seeking to promote it; making one's efforts and ideas about social change part of a collective effort. Political commitment, therefore, seeks to reform or change institutions in order to see such ideals reflected in practice (Ypi, 2016:604).

Asquith *et al.* (2015:185) emphasise that commitment to partnership is not enough if it is not demonstrated through actions. Osei-Kyei and Chan (2016:182) and IMF (2004:15) agree that private investors are attracted to invest in a PPP project where the government demonstrates a very strong political will and commitment to private sector involvement. EPEC (2015:12) argues that a strong, stable and visible political commitment is inevitable for successful PPPs given the long-term commitments involved. Moreover, potential private partners need an assurance that there is a low political risk and that the political framework is fair and will be adhered to (IMF, 2004:15; Javed *et al.*, 2013a:610; Osei-Kyei & Chan, 2015:1342). For instance, in the United Kingdom government's increasing engagement in PPPs was spurred

by the Labour Party's commitment and reform agenda of contestability – to 'alter service providers if provision persistently falls below a prescribed level' (Flinders, 2005:218; Hodge & Greve, 2011:5). Osei-Kyei and Chan (2016:175) also cite a case of the Lekki toll road project in Nigeria whose success is attributed to the vigorous support and political commitment of the Lagos State government, making this project one of the most successful PPP projects. The South African Development Community (SADC) Banking Association quoted in SAIIA (2005:35) also argues that PPPs in Africa have mainly succeeded due to political commitment.

According to EPEC (2015:12), political commitment may be demonstrated and developed through clear policy drivers to using PPPs; developing and adhering to PPP policy documents and the PPP legal framework; identification of a competent team (PPP Units) to offer technical support in developing and interpreting policy; timely reporting at senior government levels; and committing to realistic budgets that support PPP project plans and processes, such as high-quality project preparation. ADB *et al.* (2014:65) also observes that establishing a clear PPP framework is a clear sign of political commitment.

Other scholars suggest that political commitment may be determined through expressed commitment, institutional commitment and budgetary commitment; for example, budgetary allocations being lower than requested (Heaver, 2005:2; Fox *et al.*, 2015:568). Where express commitment is not backed up by policies, legal framework and financial pledge, it is as good as no commitment at all. In addition, political commitment if backed up with some form of bias or partisanship, independence of thought and action is sacrificed (Ypi, 2016:601). However, Ypi (2016:605) argues that partisanship can be a foundation for commitment especially when people with the same ideologies, beliefs and goals agree and work towards meeting a common objective. For Joughin and Kjær (2010:63), partisanship could lead to a political contest among parties, which may reinforce client-patronage shifting spending from commitment to pleasing a section of preferred client groups.

The failure of political commitment is earmarked as the primary reason for poor design and implementation of government programmes. Poor political commitment is characterized by disengagement with the population, where decisions are taken by a handful of influential individuals and the will of the people is not clearly articulated (Ypi, 2016:601). SAIIA (2005:35) argues that having a strong political backing without clear and transparent systems

creates distrust characterised with suspicion of corruption. A PPP marred with uncertainty and widespread corruption results into a political risk (IMF, 2004:15). Political commitment is, therefore, critical if the public and private sector partners spend significant time and money preparing, investing in and implementing PPP projects (EPEC, 2015:12). Nevertheless, political commitment is relative and contextual, and it is interpreted basing on other actors and beneficiaries of PPP services or projects being implemented.

3.3 Political control and its influence on PPP projects

We have already noted that when a PPP is established, the public sector agrees to transfer full or partial control of the project to the private sector within the contractual arrangements. Political control and political power are used interchangeably in this study since politics seeks to know who has the power, how it is used and on what basis it is exercised (Buse & Harmer, 2004:49). Wettenhall (2003:90) proposes two approaches in a partnership which explain the nature of power relations; the horizontal and vertical. Under the horizontal relationship, there is participation of all stakeholders, collective action and decision making with no party superior to another or capable of invoking closure rules. The vertical relationship comprises a hierarchical structure where one party dominates and is superior to all others in a controlling manner, acting through others rather than as a direct participant in the action, and can invoke closure unilaterally. This implies that, to some extent, the success of a PPP depends on the nature of relationship adopted by the partners with some scholars suggesting horizontal interactions as ideal for PPPs when compared with hierarchical or adversarial relationships (Pongsiri, 2002:489; Wettenhall, 2003:90).

A partial or reduced control by the public sector and generally the political arm does not only allow the private sector to innovate during PPP design, planning and implementation but it also attracts more private actors in the delivery of public services (De Schepper *et al.*, 2014:1212). The challenge is recognising the extent to which the public and private sector operate within the spirit of shared control and responsibility. This is because the public sector wants to maximize social benefit while the private sector seeks to maximise profit (Brinkerhoff & Brinkerhoff, 2011:3; De Schepper *et al.*, 2014:1212).

To what extent then can the political framework exert control on PPP projects, and how can partners influence their shared goals, processes, outcome and evaluations in a PPP? Political control may take the shape of instituting strict controls or imposing content ideas beforehand

or sharing information aimed at promoting accountability (Kort & Klijn, 2013:96). Flinders (2005:235) suggests that some level of political control, direct responsibility and flexibility may positively result into economic efficiencies and standards in service delivery. Kort and Klijn (2013:96) propose that strong controls and guidance may enhance the trust of the political actors in the PPP.

However, there are divergent views on how to balance the level of political control, responsibility and flexibility to become complementary and mutually self-supporting rather than being antagonistic (Flinders, 2005:235). Kort and Klijn (2013:96) think that strong involvement and control of politicians does not lead to better outcomes. They agree with debates that insist that strong constraints and tight controls will probably not enhance the trust of all partners and thus have a negative effect on outcomes. This does not mean that the increase in private sector participation should deprive the public sector of its responsibility of being accountable for service delivery even when they are not directly involved in delivering the services. The point is that it is difficult to hold politicians and public servants accountable for decisions which they are systematically distanced, and from which they have no direct control (Reynaers, 2014:43).

On the other hand, pro-growth urban politics consider collaborations among PPP partners as an assurance for service delivery. They argue that political institutions should create an enabling environment – rather than impose strong political controls – that allow the private sector to cordially and efficiently work with the public sector to restructure and re-develop service delivery without much interference after political decisions have been made (Kort & Klijn, 2013:93; Goldstein & Mele, 2016:195). The proponents of this approach also maintain that there should be mutual dependence and some degree of equality in decision-making, rather than domination of one or more partners (Brinkerhoff & Brinkerhoff, 2011:4). In any case, as Scribner (2011:3) argues, most of the information and transaction-cost problems inherent in government institutions can be mitigated by sharing construction, maintenance, and operational responsibilities with profit-motivated private firms through PPPs.

PPPs present a form of power where the public sector ideally should acknowledge the interdependence with the private sector through cooperation rather than through central steering and control (Teisman & Klijn, 2002:198). Klijn and Teisman (2003:15) argue that a public sector whose focus is to manage stakeholders' expectations and potential losses during

implementation tends to exert control and influence at the expense of mutuality. This inevitably creates a shift from mutual dependence to separation of responsibilities and emphasis on contractual relations, thus affecting innovation and delivery of quality PPP results. On the contrary, China has strong state control in every project process to the extent that the political control in decision-making surpasses the legislative and judicial powers. With state control of the judicial process, the private sector ideally has minimal support in ensuring effectiveness of operationalizing PPPs. Despite such control, there is tremendous cooperation between the state and the private actors characterized by personal ties, and reciprocal exchanges of favours and benefits that weaken the legal rules. The *Global Competitiveness Report 2001* ranked China significantly worse than the median country based on government effectiveness in PPP progress.

The traditionalists present a different stance on political control with regard to PPP delivery. They contend that the political leadership should have a strong control or secure grip on power when they are certain that the social benefits of transformations like PPPs start manifesting themselves when the leaders still have control (Ansu *et al.*, 2016:3-4). The argument is that governments make choices, policies and actions that maximise their stay in office and therefore tend to control projects which are likely to maintain patronage for the political system (Bird *et al.*, 2003:9; Birner & Resnick, 2010:1445).

Some scholars argue that having political control over a long period of time reduces the risk of political interference in decision-making for planned and on-going PPPs. For example, in point is Australia short-term governments that resulted into cancellation of large scale projects which trapped the growth of PPP projects (Asquith *et al.*, 2015:185). The power struggles and regular changes of governments at all levels present a challenging and unstable environment for PPP development (Mouraviev & Kakabadse, 2017:4). Other scholars assert that change in the political leadership poses a risk for the PPP because its proponents leave office during the project life cycle thereby creating uncertainty for the private sector (Abdel Aziz, 2007:920).

The changes in the political system according to Vadali *et al.* (2014:156&163) may result in time and cost overruns either because the new government may evaluate the existing projects thereby resulting into delays and cancellations, or the private sector may want to establish a relationship with the new establishment in political control (UNECE, 2008:37; Poulton &

Macartney, 2012:99). Other scholars argue that the desire to have control may influence agricultural policy implementation where politicians are driven to implement policies that have tangible benefit to many potential voters especially in rural areas, in addition to providing material resources in exchange for political loyalty (Joughin & Kjær, 2010:61). Ansu *et al.* (2016:3-4) concurs with the traditionalists' view, arguing that contemporary regimes where regular alternation of power between different political parties exists may not be innovators of successful transformation policy. The argument is that jurisdictions which are subject to competitive elections create a collective action problem for the political class where incumbent rulers tend not to invest their political resources in ventures to initiate transformation if they believe it is primarily their successors who will reap the benefits (Asquith *et al.*, 2015:185; Ansu *et al.*, 2016:3). Without a shared vision by political actors on economic transformation, it is impossible to realize PPP results (Ansu *et al.*, 2016:5). A good example is Asia where big breakthroughs were realized under regimes that were formally practising dictatorship (Ansu *et al.*, 2016:3). The proponents of political control in form of holding power for a long period negate the principles of democracy on the pretext that holding regular elections may cause changes in the political system, which may affect planned and on-going PPPs. This argument may seem true in some jurisdictions, but countries like the United States and Canada have consistently developed their PPP portfolio despite changes in the political system.

Scholars and practitioners agree that political stability is critical in building a long-term vision and effective development plans which promote confidence to private sector actors and allow efficient delivery of PPP projects. Shediak *et al.* (2008:12) note that the private sector will be attracted to a stable and predictable political climate free of potential wars and poor governance systems. Stability may also take the form of clear requirements and transparent decision-making in an environment of political fluctuations. Without stability, political commitment will also be undermined (Asquith *et al.*, 2015:185; KPMG, 2015:4&10). The public sector should, therefore, cautiously design and plan PPPs well knowing that political changes and vested interests constrain the PPP development and growth (ADB, 2008:26).

3.4 Political ambition and how it influences PPP projects

Strong political control, if not well regulated, may degenerate into political ambitions that influence politicians' personal interests. These not only undermine the PPP and restrict social and economic benefits but also may discourage private sector engagement and therefore

result into contraction of PPP projects. This is because political ambition is a function of favourable political and structural conditions (Fox & Lawless, 2005:644). Therefore, some politicians would take advantage of the opportunity to advance their interests. It should, however, be noted that the desire for politicians to advance to new positions of power and prominence inevitably succumbs to public scrutiny (Black, 1972:144). Politicians tend to camouflage that their actions are driven by the need to serve public interests and not private intentions. Sometimes, politicians may use their public position to mobilize support to influence contracts and policies for their own benefit (Bird *et al.*, 2003:8; DeGrassi, 2008:107).

The behaviour of politicians with political ambitions tends to reprobate into those individuals focusing on and castigating input costs rather than the results generated from the partnership. In addition, it cultivates a ‘master-slave’ approach that affects the relationship and operational effectiveness of PPP partners (Asquith *et al.*, 2015:185). This may culminate into significant risk of indecorous collusion between political actors and politically preferred firms to deliver services. This does not only affect the target beneficiaries but the economy because critical investment decisions are distorted by political considerations (Scribner, 2011:3). It is not surprising that many government-private sector engagements are characterised by cronyism, protectionist impulses and political deals of dubious social merit, with the established formal mechanisms for consultation over policy directions playing little role (Ansu *et al.*, 2016:1). Such actions often result into hoodwinking PPP partners, disregarding the political leadership’s role in ensuring public awareness of the relative costs, benefits and risks of PPPs and conventional procurement (OECD, 2012:8). In addition, the shady dealings also undermine PPP efforts and private investment in general. Worse still, the errors of the public sector component are often blamed on private parties (Scribner, 2011:3). OECD (2012:7) advises that the political framework should be cognisant and accept the costs and benefits of using PPPs if the political challenges are to be addressed and balanced appropriately with stability and predictability.

In a neo-paternalism political system it is also important to recognise that resource allocation occurs in two ways – the official, and the unofficial/informal/extra-legal. Official resource allocation is linked to the implementation of stated policies, such as the provision of subsidised agricultural credit. Unofficial resource allocation refers to actions taken by state agents that are not part of declared official policy, such as channelling of subsidised

agricultural credit to certain groups that are politically important, or to relatives and friends. Both kinds of policy are important in the field of food security (Bird et al., 2003:12).

3.5 Methodology

The research adopted a qualitative approach targeting key actors in the NAADS agricultural extension programme. The study conducted an exploratory review of literature and used semi-structured interviews to collect data. The study reviewed scholarly articles and practitioner reports to assess different debates on how the political framework shapes PPP design and implementation. Semi-structured interviews were also carried out with officials from the NAADS secretariat, district and sub-county officials, private service providers and farmers from Arua, Tororo and Kabale. The interviews were conducted to augment the existing literature. Data was analysed to identify emerging themes and examine the influence of politics in planning and implementation of PPPs in agricultural extension under the NAADS programme. Conventional and summative content analyses were used to generate meaning from the data collected.

3.6 Discussion of findings

This section presents the findings in three dimensions, which relate directly to the three themes identified in the review of the existing literature on the political dynamics in PPPs. The objective is to provide a clear link between the study findings and the existing literature.

3.6.1 Political commitment and how it influences PPP design, planning and implementation

Participants appreciated government's political commitment to establish and support a governance framework that facilitated a PPP for agricultural extension. One key participant described it as an 'innovation' by government. Government and other partners were actively engaged in designing the NAADS extension programme and establishing its governance structures at the secretariat and in the districts. This conforms to literature that refers to strong political commitment and governance as prerequisites for successful PPPs (IMF, 2004:15; KPMG, 2015:6). One participant at the secretariat, however, revealed that political commitment varied from one district to another: "where political support was good, the PPP was successful and vice versa". The participants also credited the political will to commit funds to support the delivery of advisory services, with the majority reporting that the NAADS PPP was adequately facilitated to undertake the planned tasks. However, some

participants, especially the private service providers, noted that there was no political commitment to promote private sector involvement in the agricultural extension system. One PSP noted that, "...apart from the farmers, we did not get enough attention and support from politicians and technical team in the district".

This was confirmed by a review of the NAADS Act 2001 which made mention of private sector support but did not provide a framework for the PPP to be nurtured and thrive. In addition, the majority of the NAADS secretariat and district officials confirmed that there was no designated policy to guide the principal-agent relationship.

While commitment was demonstrated through budgetary guarantee (Heaver, 2005:2; Fox *et al.*, 2015:568) for extension service provision, there was a contradiction in government's actions when it came to budget implementation. It was consistently reported that in spite of the budget allocation and availability of funds for executing the programme, there were persistent delays in releasing funds which demonstrated poor conviction at the national level to avail funds to adequately support the programme. This greatly affected the timeliness and delivery of programme outputs. The participants stated that public sector officials orchestrated the delays because, although they had powers to influence the relevant authorities to release the funds on time, they did not address the matter. This aggravated project time overruns and payments for work done. Jones and Noble (2008:111) note that a delay in PPP implementation caused by failure to pick up an issue is the responsibility of the principal.

According to the participants, this delay raised concern about government's commitment towards delivery of programme outputs and results. The majority of interviewees confirmed that the delays were endemic in the programme; in many cases disbursements would delay up to the last month of a quarter. This affected private service providers' ability to implement plans in time and it compromised accountabilities for disbursed funds. Private service providers sometimes had to fabricate accountabilities for no work done, which compromised policy procedures and resulted into significant loss of the project resources.

According to (Ypi, 2016:601), strong political commitment is illustrated by stakeholder engagement and participatory decision making. This is aligned with responses from participants at the sub-county, parish and village level who said that they were actively

engaged in planning and implementing the extension projects. Private service providers, district and sub-county officials noted that there were ‘invisible’ decisions made on programme implementation, which resulted into regular and abrupt changes that affected project implementation. Verweij *et al.* (2017:124) affirms that unforeseen events have a prospective distressing effect on PPP implementation. Information asymmetry was so widespread, with participants narrating that most of the decisions were made without stakeholder consultation on the pretext that they aimed at addressing the weaknesses that the programme was experiencing at the time. This weak political commitment was bound to affect the agency relationship. As Anderson and Feder (2007:2360) point out, weak political commitment hampers public resource investment and funding for extension services.

Furthermore, participants at the district and sub-county level recounted that often times the change coincided with general elections, which prompted the participants to believe that they were politically motivated. The abrupt decisions caused uncertainty among the private service providers (PSPs) many of whom expressed concern that their services were not appreciated by the public sector. As the political risk increased, characterised by changing policy (from extension to input provision), the PSPs lost interest in performing any innovations and advertently affected contracts and stakeholder perceptions about their support. This resulted into distrust and suspicion (SAIIA, 2005:35), and generally it became a moral hazard to the programme. One secretariat official said: “Some PSPs became self-seekers focusing on manipulating programme results”.

Responses from the districts and sub-counties reveal that the unrealistic decision making process and changes it proposed did not allow the PPP to evolve and also learn from its mistakes. Eventually, it led to the abolition of the private service providers. Unlike the Labour Government in the United Kingdom which encouraged the engagement of the private sector in providing services despite problematic Private Finance Initiative (PFI) deals (Flinders, 2005:231), the political dynamics in Uganda’s NAADS programme demonstrated inability to learn and adapt to the impediments and opportunities during the course of programme implementation. Instead, they resolved to abandon the private service providers.

3.6.2 Political control and how it affects PPP implementation

In the NAADS programme, political control took different dimensions at various levels of PPP planning and implementation. The study explored literature by scholars such as

(Wettenhall, 2003:90) which analyse power relations in PPP planning and implementation. It discovered that there was a horizontal power relationship at the grassroots where many farmers and PSPs who were interviewed generally felt that they were working together and were in control of planning and making decisions for implementing extension services. However, some studies reveal that farmers and PSPs did not have full control over the choice of enterprises because they were pre-selected by the public sector (Feder *et al.*, 2011:40). On the other hand, participants at the sub-counties and districts reported vertical relationships with strong political control from the sub-county to the national level. There was a general perception from participants in the districts and sub-counties that government had a strong control on planning and implementation of the NAADS extension system. A technical participant at the secretariat confirmed that the politicians maintained control over the “...programme operations and continued to define its purpose and vision...”

The firm control trickled down to the districts and it defined the methods of PSP service provision. Feder *et al.* (2011:41) explain how officials did not want to relinquish power to farmers to make their own decisions and choices. It was also confirmed at the secretariat that the politicians at the district and sub-county could not imagine losing power to the farmers. Many PSPs interviewed testified that the sub-county and district impositions, expectations and methods of work did not permit them to innovate appropriate technologies for supporting agricultural extension services. Other participants explained that the manner in which decisions and modifications to the programme were being made reflected some political bias (as discussed in section 3.5.1), which negatively influenced the agent’s investment decisions and innovations. For instance, some PSPs said that they would never pre-finance any activities due to the uncertainty of the environment in which they were operating. This implies that the principal’s actions of control and political bias did not create an environment which facilitates collaboration, cooperation and innovation (Turner, 2004; Müller & Turner, 2005:399; Saam, 2007:828; Babayan & Kadlečíková, 2016:317).

The study also observed that there was a political struggle between two government institutions regarding who should be in control of the programme. According to one participant at the sub-county, a row erupted where the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) realized that its power to manage agricultural extension under the adequately-funded NAADS programme had been relinquished to the NAADS secretariat (Barungi *et al.* (2016:15). This resulted into co-existence of two parallel extension

systems, the public extension system managed by MAAIF and the private extension system under the NAADS secretariat (Feder *et al.*, 2011:40). Interviewees reported that the staff under the traditional extension system begun perceiving the NAADS PSPs as a competitor rather than a support system for extension in the country. One PSP commented: “Public extension Staff at the sub-county were idle and poorly facilitated...”

As a result, participants recounted that MAAIF did not fully support private service involvement in the PPP extension programme with many participants perceiving that the genesis of concocted stories on PSP poor performance could have been born within the ministry. One respondent said: “The programme was sabotaged by the top managers and highly influenced by politics”.

3.6.3 Political ambition and how it influences PPPs

According to the participants, because the NAADS programme was well funded, it attracted the attention of many politicians at all levels. The political wing perceived the programme as a vehicle for them to demonstrate service delivery among their electorate. As a result, the demand for the NAADS PPP approach and the PSPs increased in every district and the political wing was ambitious enough to heed to the demand. The programme, which had been planned for a phased expansion, underwent accelerated expansion, which in turn affected the quality of private service providers and the PPP in general.

Officials at the secretariat argued that at commencement of NAADS, the programme brought on board quality private providers but as the demand increased, the quality of PSPs and their services was diluted. It was reported that the roll out to all districts created a gap for good experts where demand for PSPs exceeded supply. Information from the secretariat showed that some districts like Karamoja hardly got any competent private service provider. Some participants believe the drop in quality of service provided by PSPs could have led to the outcry that private service providers are not performing as expected and thus prompting their removal.

It was also reported that some of the politicians demanding for NAADS services and PSPs bore personal interests in the programme. One participant at the secretariat testified that managing the ‘political ambition and technical ambition’ was quite challenging because the two do not mix. The project was comprehended to generate mileage and tangible results

which the politicians wanted to take advantage of. The politicians' view was that results should happen quickly and must be visible. Consequently, research participants disclosed that politicians would exert political pressure on the NAADS secretariat, characterized by threats, accusations and the desire to control resources. As one PSP put it, "...the NAADS programme was a well-conceived idea but it was hijacked by politicians at the district and sub-county".

This interference resulted into political meddling at all levels of the programme. Contrary to their high expectations, many politicians failed to appreciate the importance of technology transfer provided by PSPs. At the secretariat, one participant observed: "...knowledge and skills development was never appreciated by the political wing".

Rather than promote private sector involvement and appreciate the outcomes of extension services, the politicians began questioning PSP activities, raising complaints that they were very expensive compared to the results. They asked why the agents were conducting many training sessions as though farmers were going to sit for exams. Subsequently, the training budget was drastically reduced from 60% to 25%.

As Anderson and Feder (2007:2361) state, politicians cannot support an expenditure whose impact is not felt. In addition, the researchers underscore the dependence on public funding noting that as political commitment weakens, the budgets are adjusted downwards regardless of the size of clientele that needs to be served. Many politicians expected to see immediate and tangible results without appreciating that sharing, learning and adoption evolves and takes time. It is not surprising that the politicians began lobbying for a change of mandate from delivery of technical information to farmers to supplying of inputs. One sub-county official summed it up as follows: "Political decisions guided the abolition of private service providers."

All the PSPs interviewed reported that the failure of the political wing to appreciate their work led to criticism of their activities, with government claiming that it was wasting money on non-performers. This shift in commitment, coupled with the belief that PSPs were earning a lot of money for no work done, presented ambitious politicians at the parish, sub-county and district levels with the opportunity to demand for a share of the private service provider total contract amount before contract award. Some PSPs reported that in some instances,

parties would agree to take half of the contract amount before signing the contract. This defied the principal of individual rationality under the principal-agent relationship (Bergen *et al.*, 1992:5; Hueth & Hennessy, 2002:7). It culminated into mistrust, discouragement and discontent among PSPs, and it affected their ability to deliver timely and relevant services to the farmers. As one extension officer noted, “the programme became a ‘syndicate’ where even incompetent service providers or companies were awarded contracts to support farmers provided they complied with the terms.”

It is due to these ‘kick-backs’ offered by private service providers that recruitment and contract award was now based on political connection and affiliation rather than technical competence and performance. PSPs also reported that often times they were required to inflate the contract amount (sometimes three times more than the average price of providing the same services), to cover the political greed. This compromised the politicians and project administrators’ ability to make objective decisions on PPP implementation, as well as monitoring and evaluation reporting of services offered. PSPs expressed their dissatisfaction with the way the public sector and politicians were directing the programme, stating that they were demoralised. The politicians failed to recognise that partnerships thrive on cooperation and not competition. They did not acknowledge that they needed to work closely with the private sector instead of plotting their exit or ensuring that they get thin profit margins (Linder, 1999:36).

3.7 Summary

The study acknowledges the strong influence (both positive and negative) that politics has on PPPs and it concurs with Vadali *et al.* (2014:163); Kort *et al.* (2016:773) that it is quite difficult to dissociate PPP from politics. This chapter provides an overview of how the political dynamics influenced planning and implementation of the NAADS PPP for agricultural extension. It was observed that there was generally strong government and political commitment. However, the political actions demonstrated during programme planning and implementation punctured the prior commitment that government had expressed. This means that while the political intentions were very good and appropriate for PPP, the actions that followed during implementation negatively affected the principal-agent relationship. The analysis shows that poor budget implementation, unexpected changes and modifications to the programme, and poor engagement of stakeholders in decision making

affected the principal-agent relationship. This confirms that expressed commitment, if not followed by action, will not yield PPP success (Asquith *et al.*, 2015:185).

In summary, government commitment to promote a private sector led extension system was not supported by a conducive operational environment that facilitates private sector contributions through investment and innovations. The study recommends that all key stakeholders in a PPP, including politicians, must be involved in programme design and planning so that they appreciate the dependencies that affect any form of delays during project implementation. In a PPP service contract where the public is funding the programme, government must ensure that the responsible entity releases resources in line with the approved and scheduled plans to avoid any unnecessary delays which result into corruption and poor coordination of PPP programme activities.

In addition, the study also observed that rather than delegate much control to the agent and beneficiaries to decide on the best course of action, the public sector maintained significant control over the PPP programme, characterised by political interference in directing the programme operations. This was detrimental because the private sector could not invest resources in the PPP as expected in the principle of innovation and flexibility. Furthermore, the desire of politicians to retain power and control, coupled with the institutional disagreements involving the Secretariat and MAAIF, stifled the required support and promotion of private sector contribution to extension delivery.

The study, therefore, recommends that political interests must be aligned with the technical interests' right from the inception phases of the PPP programme. In an environment with elective politics like Uganda, politicians are interested in either supporting communities in a vote winning way or in acquiring contracts that amplify their support to communities. The alignment of interests can reduce on the political interference, which hampers PPP evolvment. In addition, mechanisms that promote human-centred designs for PPP projects must be instituted in order to improve service delivery. Such designs would reject any politically designed programmes and interventions which are politically biased and do not meet the stakeholders' needs and expectations. It is important for the public sector to maintain a regulatory role but also relinquish some control to the private sector in order to allow agents to innovate the best effective ways delivering services that meet farmer and public sector expectations.

There was also a considerable amount of political ambition to quickly roll out the PPP programme without a very clear and solid road map. This affected the ability of the PPP to evolve and learn through challenges and best practices to develop an appropriate PPP model for extension. The failure of the public sector and politicians to appreciate private sector support for the programme aggravated conflicts, which affected the principal-agent relationship. The public sector and politicians need to appreciate the long terms goals of a PPP instead of focusing on the political goals that win back votes in the shortest time possible. It is imperative for stakeholders to appreciate that PPP take time to evolve especially in an environment where the PPP concept is still new. Stakeholders should also develop plans that cater for learning, monitoring and critical reflection to avoid abrupt and unnecessary changes that do not correspond to the PPP objectives. In addition, the political wing should be sensitised to appreciate the PPP objectives and outcomes as well as the importance of political support to the success of the PPP programme. An articulate policy, legal and regulatory environment would be a guiding stone in managing and aligning the political expectations in PPPs (Yong, 2010:2).

Chapter four presents insights in creating an enabling environment for PPPs and identifies policy, legal and regulatory gaps that influenced NAADS extension system.

CHAPTER FOUR

POLICY, LEGAL AND REGULATORY BARRIERS FOR PPP IN AGRICULTURAL EXTENSION UNDER THE NAADS PROGRAMME

4.1 Introduction

Many farmers in developing countries have not fully developed their skills and they cannot process information for use in the different agricultural value chains they are involved in. Agricultural extension plays a key role in supporting farmers to access timely and relevant information which can help them improve their production and productivity (Feder *et al.*, 2011:2345; MAAIF, 2016a:27). Most of the world's agricultural extension services are funded and delivered by the public sector with the private sector contributing approximately 5% (Feder *et al.*, 2011:2345; Poulton & Macartney, 2012:101). The low private sector engagement in provision of agricultural extension may be attributed to the poor enabling environment, which has deterred rather than encouraged private sector investment. Yet, it is believed that the private sector is likely to be more responsive to farmers' demands and needs if given an opportunity (Poulton & Macartney, 2012:101).

While the public extension system can improve productivity, it generally experiences numerous challenges which include inadequate delivery of relevant information, poor farmer reach, low staff morale and financial stress (Feder *et al.*, 2011:2355). The technology and management gaps embedded in the public agricultural extension system call for a broader lens beyond provision of technical information. It requires developing innovative ways in technology transfer, organizing farmers in groups, access to credit, and marketing (Poulton & Macartney, 2012:101; Kokate *et al.*, 2016:18). This means that the public sector alone, given its financial constraints and personnel gaps, cannot fully deliver the new extension package. There are debates on the shift from purely public driven services to engagement of the private sector in agricultural extension, some scholars arguing that private investment in extension is bound to generate agricultural productivity as well as boost farmer incomes (Feder *et al.*, 2011:2346). Consequently, PPPs in agriculture are considered to be a solution and drivers for modernisation of the agricultural sector towards sustainable agricultural development that is inclusive of small holder farmers.

The rationale for establishing a PPP in agriculture is to combine competencies both public and private sectors to generate innovations that promote synergies which would not have been realized by one party operating alone (Hodge & Greve, 2007:546; EIU, 2015; FAO, 2016:5). The concern, however, is harmonizing the private sector's drive to maximise profits with the public sector's aim of improving service delivery (Hodge & Greve, 2007:547). This implies that an enabling environment which promotes private sector participation whilst increasing public sector provision of public goods and services is critical. Farquharson *et al.* (2011:15) emphasise that the fruits of investing in establishing a firm foundation for the PPPs are realized in the successful delivery of PPP projects. While developed countries have endeavoured to strengthen their governance, management and control of PPPs, in developing countries these have not been prioritized (Mouraviev & Kakabadse, 2017:3). Emphasis is placed on drafting the PPP contract and partnership launch with little attention placed on the PPP policy, legal and regulation framework.

FAO (2016:4) points out that national PPP policies and laws generally prescribe predetermined and transparent project design, bidding and selection processes, accompanied by a specific set of legal and regulatory guidelines. However, the promotion of PPPs for agricultural development to date has placed limited emphasis on the enabling environment and conditions necessary to support the formation and implementation of these partnerships beyond the project period (FAO, 2016:4). In fact, many countries still lack an appropriate PPP policy, as well as the related legislative and regulatory frameworks for agricultural development. Some countries have adopted a procedure of regulating through the contract without necessarily establishing a stand-alone regulatory body. There's an increasing agreement that an appropriate PPP policy and legal framework should be put in place, instead of re-inventing the wheel for each contract. Thus, experience shows that while PPPs can be developed and implemented in the absence of a well-developed PPP framework, this is more difficult and time-consuming than in situations where a PPP framework is in place (Yong, 2010:37).

A PPP exists where the public sector contracts a private sector for the implementation of a public sector good or service for longer periods of time such as the provision of agricultural extension services and other infrastructural projects (Mouraviev & Kakabadse, 2017:1). FAO (2016:5) defines an Agriculture Public Private Partnership (agri-PPP) or a PPP for agribusiness development as:

a formalized partnership between public institutions and private partners designed to address sustainable agricultural development objectives, where the public benefits anticipated from the partnership are clearly defined, investment contributions and risks are shared, and active roles exist for all partners at various stages throughout the PPP project life cycle.

The NAADS programme in Uganda adopted a principal agent relationship in form of a PPP between the public sector and private service providers to support the provision of demand driven extension services. Why, then, did an innovative demand driven extension system backed by the NAADS Act 2001, political commitment and heavy support by development partners, fail to realize its objectives and was later abolished? Questions have been raised whether there is need for sector policies, legal and regulatory framework for PPP in agricultural extension.

This chapter presents a sector diagnosis of the policy, legal and regulatory frameworks for PPP in agricultural extension in Uganda. The diagnosis guided the study in assessing the enabling environment and determined whether there were any barriers to the policy, legal and regulatory framework for the PPP NAADS programme. The study also suggests what should be done to build such an environment that creates and promotes PPP opportunities especially for agricultural extension. A lot of literature has focused on the importance of an enabling environment without providing the prerequisites in formulating and implementing the policies, the legal and regulatory framework for PPPs.

This chapter is organized in four sections. The introductory section is followed by a review of literature, which highlights the PPP enabling environment guided by three major themes (policy, legal and regulation) that are critical for PPP success. The fifth section provides an outline of the research methodology, which explains the tool and methods used for collecting data. Section six presents insights from the field and offers an analysis and discussion for the three main themes. The seventh section presents the conclusions and policy recommendations.

4.2 Policy framework for PPP implementation and why it is important for agricultural extension

Scholarly and practitioner literature on appropriate PPP policy draw lessons from practitioners in other sectors since there is limited scholarly literature on policy fundamentals for PPP design and implementation in agricultural extension.

4.2.1 Rational for policy framework

It is argued that governments or public sector which implements PPPs without a policy will most likely face goal conflicts and persistent challenges during implementation. This is because a PPP policy provides the broad picture for design and implementation (UNECE, 2008:18). The broad picture is critical in managing stakeholder expectations but also guides monitoring and measuring progress of PPP projects (ADB, 2008:26). Policy articulates government's intent to use PPP to deliver public services and the objectives, scope and implementing principles of the PPP programme (ADB *et al.*, 2014:67). Although the application of PPPs in agriculture is still relatively low compared to other sectors, there are considerable efforts by governments and other partners to engage the private sector in agriculture including extension services, through creating appropriate policies (FAO, 2016:3).

Many governments have established PPP national policies, but there are still gaps in operationalizing them to support formation and implementation of PPPs for agricultural development especially extension (Poulton & Macartney, 2012:96; FAO, 2016:3). Countries like the United Republic of Tanzania launched her National PPP Policy in November 2009 to serve as a guideline for the formulation and implementation of PPPs in all sectors. Ghana also launched her National PPP Policy in 2011, which provides a bias in pursuing agribusiness PPPs (FAO, 2016:118). It is reported that China's PPP boom has been precipitated by favourable policies and statutes which allow private sector participation in different sectors of the economy (Cheng & Wang, 2009:5).

Feder *et al.* (2011:2348) note that the policy framework has critical connotations to the design and implementation of PPPs. An ideal policy framework should present the PPP programme objectives and rationale, stipulating what government aims to achieve out of the PPP programme. It should also highlight the scope and the appropriate projects to be pursued under the PPP policy, and the implementing principles for the PPP projects, as well as targets and performance indicators (Yong, 2010:30; Feder *et al.*, 2011:2360; ADB *et al.*, 2014:72).

Feder *et al.* (2011:2352) add that policies should explicitly highlight the private sector roles and responsibilities, explaining how the public sector complements the private sector during PPP implementation. The PPP policies should also be in harmony with the values and principles used during implementation. This may include ‘access to services, cost to citizens, fairness and equity, conflicts of interest, financial accountability, stability and quality of services provided, value for money’ (UNECE, 2008:18; ADB *et al.*, 2014:75). These values set the standards against which implementers will be held responsible and are often supported by regulations and processes which stipulate how the values will be put into practice (ADB *et al.*, 2014:75). A policy with such characteristics would be comprehensible enough that it will win the support of the stakeholders for the PPP approach to be adopted.

4.2.2 Prerequisites for emergent PPP policy

A PPP policy embeds a regulatory procedure to promote the efficient functioning of regulatory agencies by ensuring that they operate under an appropriate and clear mandate, with the necessary independence from political influence and regulated subjects. The regulatory organs should be appropriately resourced and equipped, and their decision-making fully transparent and accountable. The regulatory function should ideally safeguard value for money for the public sector and protect users and consumers of services (OECD, 2012:10). Building on the policy framework, PPP operations require oversight and a governance structure that is defensive of public interest, conducive to private service providers and responsive to changing circumstances (Warner *et al.*, 2008:54). Shediak *et al.* (2008:2) add that the success of a PPP is highly dependent on having the right framework in place, which enables both the private and public sectors to support the structuring, screening and procurement of high value PPP projects. The private sector expectation is that the public sector will commit to undertake policy design, implementation and control in order to facilitate PPP project development, planning, and contract oversight (ADB, 2008:26). It is suggested that a restrictive policy environment does not only affect private sector participation but also innovation. Private sector investment and participation in PPPs will increase only when the investors appreciate sufficient government support and certainty for private sector growth and development. A PPP policy should consequently provide clear guidelines on a governance framework and government incentives that ignite private sector confidence to participate and invest in PPPs especially agricultural extension (UNECE, 2008:21).

All the above policy schemes may not be successful without a clear policy communication plan. This policy component should highlight who communicates PPP project information, when they communicate and the different formats aligned with the different stakeholders. This framework of communication controls the flow of PPP project information but more importantly provides a common stance on PPP critics within the media and elsewhere (UNECE, 2008:21). In addition, PPPs are not immune to persistent misunderstandings and conflicts especially between the public and private sectors. The policy should, therefore, highlight the establishment of both formal and informal channels for dialogue between parties to resolve all issues in a timely manner as they occur. The rationale is to minimize the emergence or growth of partnership conflicts which may jeopardize the realization of the PPP goals and objectives (UNECE, 2008:21). A policy backed with public information will facilitate quality checks on information supplied by different stakeholders. Similarly, the policy operationalization should be communicated and agreed upon by all government ministries and departments in order to harmonize understanding on how PPPs will be used during implementation. Coordination and cooperation within the government is a good basis for effective policy implementation (UNECE, 2008:20). Policy makers should consult all the relevant key stakeholders in policy design especially those affected by the policies. The stakeholders' input is critical in promoting policy adoption and ownership. It also provides an understanding of the policy actions that are taken during implementation (UNECE, 2008:20).

PPP contracts may not exhaust all the possible requirements or predict defects and changes that may occur during implementation. Sometimes there are gaps in the poorly designed, drafted and negotiated agreements that are bound to affect PPP project success (Pongsiri, 2002:490). The PPP policy should, therefore, cover any changes needed. For example, the United Kingdom (UK) government which initiated a PPP policy, learnt from the mistakes and, rather than terminating the project, revised its policy and moved forward. The policy process became one of continuity but with the ability to innovate and take on new models of cooperation (UNECE, 2008:18). It is, however, important that the private partners are consulted before any changes are made in the PPP relationship. The changes may range from corrective measures to termination. Managing such situations may involve adding clauses which stipulate the termination or corrective action processes (UNECE, 2008:37).

4.2.3 Politics and PPP policy

Politics provides the context for policy making in all countries. However, neo-patrimonial politics has the distinctive quality of structuring policy making and implementation in a way that systematically diverts public resources for private gain. This frequently leads to poor policy formulation, inferior implementation and policy failure, and undermining opportunities that may be harnessed during the PPP (Bird *et al.*, 2003:11). It is recommended that policy preparation be followed by an assessment of the political context because it determines which policies are developed and implemented. Namara (2012:2) suggests that the political and technical expectations of given policies should also be well aligned. She asserts that failure to harmonize the technical and political expectations at design, implementation, monitoring and evaluation stages will restrain project sustainability. Bird *et al.* (2003:7) argue that while politics plays a key role in promoting policy development and implementation, it can also contribute to failure of agricultural policies. Policy makers are advised to review and align policies with the political climate ordinarily influenced by neo-patrimonialism, because this determines the policies that get implemented, how they are implemented and what resources are allocated to their implementation (Bird *et al.*, 2003:7). Hodge and Greve (2007:547) argue that governments that have competitive elections sometimes deliberately or selectively implement policies that facilitate government's ability to secure votes.

It is not surprising that some governments introduce policy reforms that usher in new practices backed by neo-patronage. Bird *et al.* (2003:12) highlight two approaches to resource allocation which affects policy implementation. They contend that one approach of a neo-patronalism political system is the official resource allocation, which ensures execution of stipulated policies such as providing input to farmers. The unofficial mechanism involves acting contrary to the official stipulated policies by state agents; for example, supplying agricultural inputs to selected groups that are politically or strategically important, or to relatives and friends. Bird *et al.* (2003:12) argue that both policies are important especially in food security. The rationale here is to understand the political factors that are likely to influence policy adoption and design of any appropriate alternative policy approaches. In this regard Feder *et al.* (2011:2352) posits that issues like conflict of interest which are common in PPP arrangements should be catered for in the PPP policy design and implementation. The failure to politically understand and appreciate the political dimensions may result in partial policy implementation or reforms, which only benefit the client-patron relationships. It is also

worth noting that a PPP policy which is not harmonized with existing national and sectoral policies will experience many contradictions and overlaps (FAO, 2016:118).

Bird *et al.* (2003:11) conclude that policies generally fail due to lack of capacity within government to develop, implement and control them, lack of coordination of the sector-specific policy, poor attention to budgetary implications of policies at the formulation stage and a failure to address the necessary institutional transformation and policy sequencing. Similarly, policy makers will not support or allocate resources to a policy that is deficient of accountability, or one that demonstrates ineffectiveness (Feder *et al.*, 2011:2360).

In light of the growing importance of PPPs, governments need to build their capacity to address the challenges above. UNECE (2008:20) recommends that policy makers identify and prioritize not only goals for the PPP policy but also commence with relatively simple and straight forward projects that most likely will succeed and yield maximum benefit to all stakeholders. Countries can also develop PPP knowledge sharing platforms where they can share best practices and engage in policy decisions on PPPs. Platforms at local, regional and international levels may be established to cooperate in developing effective policies.

4.2.4 Summary of agriculture extension policy reforms in Uganda

Agricultural extension in Uganda has gone through structural and policy reforms from the Structural Adjustment Policies (SAPs) in the early 1990s characterized by a top-down service approach exclusively provided and funded by the public sector. Despite the growth in agriculture by 6% per annum, the SAPs in Uganda, just like in other African countries, fell short of realizing their objectives (Birner & Resnick, 2010:1444). It was reported that agricultural extension services still had gaps with only about 10% of farmer reach and 30% technology adoption (MAAIF, 2000:5). The SAPs were followed by the introduction of the NAADS programme, which was a farmer led but private sector driven extension system. The advent of the private sector means that there was need for a PPP extension policy which coherently stipulates the emergence of the private sector and reduced public sector responsibilities (Demisse *et al.*, 2011:75).

4.3 The legal framework and its influence on PPPs in agricultural extension

PPPs in Agriculture are becoming an emerging trend on the African continent. However, for PPPs to blossom, a political landscape which offers transparency, participation and promotes

the rule of law and due process will attract and build confidence among private sector actors to invest in the agricultural sector well knowing that their investments will be protected and channelled towards planned activities (UNECE, 2008:30; Yong, 2010:31; FAO, 2016:105). A partnership agreement is protected by a legal framework and will be upheld amidst all the challenges encountered during PPP implementation. While many governments in developing countries are gaining experience in infrastructural PPPs, partnerships in agriculture are still in their infancy with the majority of governments cautiously using them to draw lessons on their efficiency and effectiveness in service delivery. EIU (2015:13) argues that PPPs may be implemented without a specific PPP law although the passing of such laws can harmonise practices and establish consistent frameworks across ministries. This implies that PPPs design and implementation is not streamlined and requires developing institutions, processes, frameworks and procedures to successfully deliver the projects (UNECE, 2008:8; FAO, 2016:106).

In order to make policies more responsive and supportive of PPPs to thrive, Shediak *et al.* (2008:9) propose that policy makers must ensure that they establish legislative frameworks that support quick and transparent decision making, allow for competitive bidding and develop regulations that specifically apply to each type of PPP. Therefore, the legal and regulatory frameworks take a centre piece in developing, shaping and controlling whether and how PPPs can be implemented (ADB *et al.*, 2014:78; EIU, 2015:5). However, in developing the legal framework, different approaches are recommended for different circumstances. For instance, the framework for mature markets may differ from developing economies (KPMG, 2015:16). Mouraviev and Kakabadse (2015:7) suggest that a PPP legal framework must consider the political, economic, legislative, social and cultural environment and how these factors mould the PPP framework. This means that the proponents of the legal and regulatory systems should be sensitive to the context rather than relying on ‘copy and paste’ or importing clauses and solutions while neglecting the weight of the prevailing political, social and economic conditions (Mouraviev & Kakabadse, 2015:7).

Pongsiri (2002:488) emphasises that one of the critical conditions that governments must fulfil before engaging a private sector partner is to establish an effective legal framework which, inter alia, covers enforcements of contracts, arbitration and regulations to support private sector actors (Samii *et al.*, 2002:1002; EC, 2003:38; Yong, 2010:31; Mouraviev & Kakabadse, 2015:6; FAO, 2016:116). Abdel Aziz (2007:921) notes that PPP commencement

should be preceded by a legal framework which authorises, regulates and provides for the boundaries through which the public sector operates. The regulatory and legal mechanisms, therefore, play a key role in PPP identification, development and implementation (EC, 2003:38). The legal relationships blended with a complex mixture of regulatory activity operationalizes the legal framework (Pongsiri, 2002:488). The legal frameworks function to reduce opportunistic tendencies and to align the interest of the partners (Pongsiri, 2002:489). In fact, Hodge and Greve (2007:546-547) and Farquharson *et al.* (2011:19) suggest that the legal and regulatory system should accommodate some flexibility to allow for future uncertainty, cooperation, innovation or new products and approaches. Close cooperation among the public and private sector squeezes out new approaches and ideas that may have been left out during the process.

It is argued that increasing legal certainty is a practical illustration of promoting PPPs, thereby growing the contribution that private financing can make especially in constrained public budgets (EC, 2005:7). The recommendation is that national legislative structures identify and address all uncertainties related to competition among private sector actors, effective monitoring regulations and systems in ensuring compliance with contract conditions (EC, 2003:39). The legal framework should be able to address some basic issues like protection of the private sector interests, public sector bureaucracies and the excessive restrictions on public procurement processes which may affect PPP implementation (Mouraviev & Kakabadse, 2015:6; FAO, 2016:116). In addition, the framework should be in position to facilitate longer term decision making for investors, compared to short term decision making which affects the quality of investment to PPPs (UNECE, 2008:30). In instances where the national legislative structures may not be conducive to PPPs, certain methods may be used to introduce PPPs, that is, procuring a private sector partner that reduces the deficiencies of the legislative structure, choosing a private partner best able to manage legislative and regulatory risks, incorporate explicit safeguards in contracts, and encourage the development of effective regulatory and watchdog mechanisms (EC, 2003:39)

4.3.1 Prerequisites for PPP legal frameworks

UNECE (2008:29) recommends that PPP laws should not be too detailed to promote micro-management of the partnership at the expense of deterring investors and innovation. The focus should be on achieving outcomes and agreeing on parameters for design and implementation of projects. Four critical areas are suggested by the European Commission:

identifying factors that may affect private sector participation; reviewing and prior preparation of current stakeholders in form of assessing their legal status and flexibility of their mandate in line with PPPs; reviewing and identifying the need for sector specific policies; and regulation that allows effective private participation including institutional structures that provide oversight and control of private actors (EC, 2003:38). Successful implementation of PPPs depends largely on the development of sound legal procedures, agreements and contracts that clearly define the relationship between government agencies and the private sector. Without thoughtful and professional legal frameworks and contracts, disputes are likely to ensue and projects can and will be delayed and terminated (Pongsiri, 2002:489). The legal framework should be able to establish appropriate and recognized arbitration processes where commercial disputes are resolved. The system should also offer confidence to the actors that the judicial structures will prevail upon any political pressures by enforcing both the PPP laws and contracts (UNECE, 2008:31).

In addition, standardization of contracts is pointed out as a critical component in improving efficiency in the PPP legal processes. For instance, the UK standardized all Private Finance Initiative (PFI) contracts and they must comply to certain ¹SoPC4 standards (Mouraviev & Kakabadse, 2017:11). This approach promotes a common understanding of the main risks, allows consistency of approach and pricing across a range of similar projects and reduces the time and costs of negotiation by enabling all parties concerned to agree on a standard approach without extended negotiations. Another practice is bundling projects; that is, contracting with just one partner to provide several small-scale projects and incremental partnerships, which allow a partnership to grow by stages rather than in one ‘big bang’. All these practices use economies of scale and lower costs to boost incentives for investors (UNECE, 2008:31). Failure to standardize contracts may result in poor planning and re-engineering of quality standards from the public partner’s requirements to shaping the project in accordance with the private actor’s objectives (Mouraviev & Kakabadse, 2017:19). EIU (2015:10) add that failure to standardize could lead to conflicts among line ministries and departments in terms of interpretation and implementation especially in jurisdictions with differing protocols like South Africa. Farquharson *et al.* (2011:20), on the other hand, argues that standardization may leave out key modifications and innovations due to changes in the

¹ SoPC4 mean standardisation for Private Finance Initiative contracts version 4

market, policy, or sector-specific issues. Therefore, balance and regular review are highly recommended.

PPPs are established to improve public service delivery. However, a public which is not aware of their rights to demand for and access better services, and actively participate in decision making all through the project life cycle may fall short of pressing for social accountability. A good legal framework, therefore, empowers its citizens to know their rights to access basic services from the PPP projects thereby extending the rule of law to those who have no access to laws to protect their rights (UNECE, 2008:32).

Many developing countries have enacted specific legislation on PPPs, but such legislation often focuses exclusively on large-scale PPP infrastructure projects thereby neglecting PPP legislation for sector specific, small-scale, often semi-formal and multilateral, public–private collaboration arrangements that occur in the agriculture sector (FAO, 2016:117). Uganda and Tanzania have developed PPP Acts in 2015 and 2010 respectively; however, FAO (2016:118) observes that there appears to be limited applicability of these laws to agribusiness PPPs. Unlike Uganda and Tanzania, new legislation on PPPs was developed in Peru in 2008 and 2012, which maintains a focus on infrastructure PPPs, but opens up room for other types of partnership (FAO, 2016:118). While governments have made efforts in establishing legal frameworks for PPPs, enforcement of the laws has been very weak. The 2015 Infrascop report reveals that Nigeria and Zambia have strong legislation on transparency and dispute resolution but these are not recognized in practice. Furthermore, the report makes mention of inadequate capacity of countries to follow-up on the regulatory provisions (EIU, 2015:10).

4.4 Regulation and how it affects agricultural extension delivery

The increasing involvement of the private sector in the provision of public goods and services is creating a shift of roles from the public sector being an operator to a management and regulatory function. This calls for development of effective regulatory systems through strengthening the national legislative, regulatory and institutional capacities to provide an effective framework for PPPs (EC, 2003:90). PPP require regulation and monitoring to ensure that better performance requirements are adhered to and social needs realized (Marques & Berg, 2010:2). The World Bank (2017) defines regulation as the monitoring and control of a sector or business by government or an entity appointed by government (WB,

2017b). PPP regulation is important although Mouraviev and Kakabadse (2015:8) argue that governments tend to exert more rigorous regulations to some sectors like energy, oil and gas, compared to others. Where a separate regulator does not exist, ADB (2008:87) recommends that a unit within the line ministry be set up with a mandate to monitor compliance against the regulations, publish reports on performance, and enforce any penalties for non-performance. For example, The Independent Consumer and Competition Commission (ICCC) of Papua New Guinea (PNG) was created in 2002 to regulate service delivery in electricity, telecommunications, ports and harbours, and postal services. Among its mandate is to protect the long-term interests of the people with regard to the price, quality, and reliability of significant goods and services (ADB, 2008:88).

PPPs in agricultural extension equally need regulation to assess access and quality of information delivered to the users. Regulation helps to tame the varying actors and their interests, such as protecting investors from political influence and consumers from exploitation (Smith, 1997:1; Yong, 2010:34). An ideal regulatory system should ensure that the regulator has a distinct legal mandate free of political control. The system should also highlight professional criteria for appointing staff and award relatively fixed term contracts that protect them from arbitrary removal. The terms of service for regulatory leadership should be staggered to avoid coinciding with the election cycle. The regulatory agency should have a reliable source of funding and where possible exempt the agency from civil service salary rules that make it difficult to attract and retain well-qualified staff (Smith, 1997:3).

The nature and scope of government regulation may include setting the price, environmental control, quality of technologies shared with farmers, safety standards and administrative procedures all of which influence interaction between PPP partners. Mouraviev and Kakabadse (2015:8) point out that some governments hinge their regulations on the contractual provisions with limited attention paid to the relational facets, which are critical to PPP. Pongsiri (2002:488) suggests that regulation should ensure that the interest of the public and private sectors are reached through the partnership. He adds that regulation does not mean unnecessary and unrealistic controls but it should be designed to protect collective welfare, ensure open competition and promote results with the PPP projects (Mouraviev & Kakabadse, 2015:8). Regulation should, therefore, be based on a stable, transparent and trusted framework whose basis is achieving the greatest value from the negotiations with the private sector and thus benefits in form of improved service delivery are realized (Shediac *et*

al., 2008:2). Yong (2010:34) adds that the success of the regulator depends on their commitment and credibility in executing their tasks.

Pongsiri (2002:490) argues that while regulation is considered an important component for maintaining competitive market discipline on public service provisions, many governments have not made provisions for a regulatory framework that will monitor performance of private service providers to ensure contractual compliance. The 2015 Infrascope assessment report from African selected countries reveals that many have established PPP legal frameworks. However, the average readiness and performance of a PPP regulatory framework is weighed at 25% in terms of consistency and quality of PPP regulations, effectiveness of PPP selection and decision making, fairness of bids and dispute resolution (EIU, 2015:49). This implies that implementation of the legal frameworks is still weak and efforts need to be made to operationalize and enforce those established laws. While the parameters used may not comprehensively measure the performance of the legal framework, they at least provide a generic status of how different countries have operationalized regulatory frameworks in PPPs.

Regulatory systems should, therefore, be set-up at early stages of planning to define clear rules for PPP project performance, provide practical experience to the staff responsible for their implementation and provide assurance to the private sector that the regulatory system includes protection from expropriation, arbitration of commercial disputes, and respect for contract agreements. The benefits herein will include better and more informed decision making in the public sector, improved performance, efficiency and accountability (Pongsiri, 2002:490). A well-defined regulatory framework can provide sufficient incentives for the private sector to invest in extension and for the public sector to protect the safety of a sector and ensure that there is prioritization on the quality and methods of extension provided in the country (Shediac *et al.*, 2008:2).

4.4.1 Regulation and politics

Government's political and social actions may often act as a disincentive for private sector investment and the consumer. Smith (1997:1) observes that political control tends to override the regulatory mandate with many governments reluctant to relinquish control over regulatory decisions and sometimes question the appropriateness of decisions made by the regulatory author or unit. The private sector needs certainty against such unforeseeable

actions that may jeopardize the entire PPP arrangement. Governments need regulation to ensure that essential partnerships operate efficiently and optimize the resources available to them in line with the broader policy objectives. Some scholars such as (Smith, 1997:1) recommend independence of the regulator to act as a buffer against political interference from individuals and government bodies (Pongsiri, 2002:490; WB, 2017b). The regulatory function should be flexible enough to accommodate any unforeseen developments including creativity, innovation, changes in technology and market conditions (Smith, 1997:2; Brown *et al.*, 2006:325). Policy makers, therefore, need to determine the level of discretion that the regulatory authority should have in managing PPP interventions (Smith, 1997:2).

Some projects adopt broad regulatory guidelines which generally define acceptable criteria as ‘just and reasonable’ while others adopt regulation by contract, based on specific laws or contracts but also to eliminate direction. Smith (1997:2) argues that many countries operate on a continuum of both extremes above. Some scholars report that regulating outputs is more preferred to regulating inputs because the outputs provide the private sector with more incentives to perform better (Mouraviev & Kakabadse, 2015:9). On the other hand, practitioners emphasize regulating outcomes (WB, 2017b). The important point is managing regulation in such a way that it is free of political influence and to ensure that it is conducted on the basis of competent analysis (Smith, 1997:2).

The challenge is over regulation and contractual safeguards which can restrain economic growth and hinder the private sector’s ability to remain competitive in the market. The greatest deterrent to private participation in a PPP is the regulatory environment if it is unlimited in scope, has unclear operation and is inclined toward micro-management. The regulatory regime must be limited, transparent, fair and consistent and government must always keep its promises. Pongsiri (2002:491) highlights that a PPP cannot be deemed successful if its regulation results in the need for more government oversight and expensive monitoring (Pongsiri, 2002:491). This is perhaps the reason why some governments have their capacity constrained to enforce regulatory rules and to monitor contracts (Pongsiri, 2002:491).

4.5 Research methods

The study adopted a qualitative approach using document review and semi-structured interviews to collect data. A systematic review was conducted targeting programme and other

sector policies, guidelines, acts of parliament, reports, journal articles and government papers. The review was conducted to get an understanding of the frameworks used to govern the PPP for extension services but also to identify gaps. The review was augmented with semi-structured interviews, which targeted 24 participants drawn from the NAADS secretariat, district and sub-county field offices, and private service providers. The study employed purposeful sampling with the goal of selecting those participants who are knowledgeable and are in position to discuss policy, legal and regulatory issues in the NAADS extension programme. The interviews also sought to seek possible remedies to gaps identified in the policy, legal and regulatory frameworks (Patton, 2002; Neuman, 2007).

4.6 Discussion of findings

The study sought to conduct a diagnosis on how the PPP policy, legal and regulatory frameworks on agricultural extension affected the planning and implementation of the NAADS programme. This section provides responses from interviews with targeted participants on policy, legal and regulation gaps within the PPP of the NAADS extension services.

4.6.1 PPP Policy diagnosis

The study sought to establish the policy instrument that guided the principal-agent relationship for extension under the NAADS programme. The researcher interviewed the secretariat, district and sub-county officials and discovered that there were discrepancies among all categories of participants on the actual policy guiding the PPP. The majority of respondents revealed that there was no policy while others claimed that there was a policy but could not articulate it. A section of the respondents also referred to the NAADS implementing manuals, the NAADS Act, the Programme for Eradication of Poverty (PEAP) and Plan for Modernization of Agriculture (PMA) guidelines as the policy framework that guided the partnership. One district official said: "...there was no policy guiding this partnership; we only had the NAADS implementation guidelines." The official added that: "...there were also some scattered guidelines and most of them were in draft copies."

The private service providers also said that they were not aware of any policy that guided their support for extension services under the NAADS programme. One of the PSP said: "...there was no specific policy that addresses the private sector."

Some private service providers revealed that the contracts acted as the policy document because it had terms of reference, which guided them on what to do. The discrepancy in articulating the policy framework indicates that right from inception, there was no harmonized position on a specific policy guiding the PPP for extension services and, therefore, no framework supporting the involvement of the PSP in extension service provision under the NAADS programme. This contradicts literature that recommends the development of policies to support the interpretation of the PPP extension programme and provide guidelines that standardize its implementation at the different government levels. In fact, literature stresses that without specific policies that support the principal-agent relationship, it would be problematic to institutionalize PPPs for development (Abdel Aziz, 2007:921). The failure to have a specific policy that supports the agency relationship implies that the stakeholders did not have a common goal and objective for the PPP and did not have well stipulated guidelines on how the private sector compliments the public sector. No wonder some private service providers reported that stakeholders did not recognize and appreciate their importance and contribution towards the programme and only treated them as contractors as opposed to partners in the programme. During the interviews, it was noted that many implementers at the secretariat and districts referred to PSPs as ‘contractors’.

A review of all the NAADS implementation guidelines and other scholarly literature reveals that none of the documents presented a clear roadmap to engage the PSP and the objectives for the partnership was also not stipulated. Although the PMA was perceived as the enabling frame for the private sector (Joughin & Kjær, 2010:67), it was discovered that the ‘PMA is an outcome-focused set of principles upon which sectoral and inter-sectoral policies and investment plans can be developed at the central and local government levels’ (MAAIF 2000:1). While the PMA policy recommendation was to restore the private sector as the engine of growth and formulate an agricultural extension policy that would promote an efficient extension service primarily based on private sector delivery (MAAIF, 2000:32&39), there was no specific policy based on private sector delivery which was developed to create a policy environment for private sector emergence and involvement in agricultural extension. In addition, the absence of a specific PPP policy for private service extension suggests that there was no clear rationale and objectives for the PPP, which emerged into poor commitment to private support for extension services.

The participants highlighted that the poor policy environment caused misinterpretations of the NAADS extension programme from policy makers, politicians and technical persons. This means that there was no synchronization, which subsequently resulted into unforeseen policy directives that introduced astonishing changes and modifications many of which affected the principal-agent relationship.

MAAIF (2011:18-19) and 2016:10) reports confirm the diverse changes that took place during the NAADS extension programme implementation, inconsistent policies and modus operandi and how they created uncertainty in the sector and thus were a disincentive for private sector engagement and PPPs generally. The directives were said to have been incited by the policy makers and the political wing. The changes reported included a shift of the NAADS mandate from provision of advisory services to focus on input provision, a shift from demand driven extension services to a supply driven approach through the commodity approach which was later introduced after demarcating regions into ecological zones and imposing specific enterprises on farmers within those areas. One respondent at the sub-county said: “There were a number of abrupt changes in the planning and implementation of the PPPs which were not catered for in the manuals.”

Rather than learning from the mistakes and strengthen the gaps as recommended by UNECE (2008:37), participants revealed that government took advantage of the weak policy to manipulate the programme and introduce interventions they believed would deliver more value to the beneficiaries. Some scholars point out that the intervention by the President of Uganda was justified as he hinted to parliament that “Government will intervene in some strategic sectors to put our economy on a new pedestal” (Joughin & Kjær, 2010:67). Other scholars contend that policy makers will intervene and not support policies that are ineffective and deficient of accountability (Feder *et al.*, 2011:2360). These directives did not only disrupt field operations and PPP relations but also did not allow the principal-agent relationship to evolve through the project life cycle and implementers to learn from successes or failures. In addition, the directive that changed the mandate for input provision influenced the beneficiary behaviour and perception from being knowledge seekers to seekers of tangible products like seeds and equipment. This further weakened the PSP role in extension and thus rendering them less important.

Contrary to the recommendations to communicate any changes in a PPP policy framework, the respondents narrated that often times the policy directives above were unilaterally given, usually pronounced on radio as a presidential decree without explicit explanation or preparedness of the different stakeholders to comprehend or even have input to the proposed changes. This resulted into low morale among the private extension workers as the majority recounted that the directives were aimed at gradually eliminating them from supporting extension. Moreover, there was no platform to address their concerns. The participants at the districts narrated that the policy directives indicated that the programme had shifted from its original plans and objectives. One district NAADS official observed that: "...the programme lost focus..."

The failure to have clear policy objectives coupled with poor communication created conflicting expectations among stakeholders. The PSPs observed that officials at different levels had diverse expectations and, therefore, provided information inclined to their interests and expectations. Many farmers confirmed that they received contradictory messages from the politicians, district and sub-county officials and PSPs, which created confusion and dissimilar expectations that compromised the principal-agent relationship. For instance, many farmers were persuaded to join groups to benefit from tangible products like inputs, equipment, and allowances rather than emphasising joint learning and synergy. The PSPs said that often times they found themselves stretched between meeting the diverse stakeholder expectations versus delivering the tasks stipulated by the contracts. Where they prioritised the contract requirements, they clashed with the stakeholders.

The study also discovered that there were contrasting interpretations on the operationalization and streamlining of the NAADS PPP extension service amongst all the responsible government ministries and departments. For instance, while the PMA strategic framework reads that the NAADS will report to MAAIF (MAAIF, 2000:xi), the NAADS implementation guidelines stipulated that MAAIF would supervise it through the NAADS Board, which played an advisory role to the NAADS Secretariat (NAADS, 2001:13). The implementation guidelines reduced the line Ministry to an advisor, meaning that the ministry did not have direct influence and could not make any significant decisions over the design and implementation of the programme. According to the respondents, this created a rift between the Ministry and the NAADS programme. This rift trickled down to the principal-agent relationship because according to the respondents, the traditional extension system under the

MAAIF existed and was parallel to the PSP partnership with NAADS. Policy makers failed to streamline the roles and responsibilities and they did not harmonize the roles delivered by both systems, which resulted in accusations and counter accusations from both parties. According to the majority of the PSPs interviewed, the traditional extension workers undermined their work and seldom supported them during their field activities. The public extension workers also complained that the PSPs were given a lot of money for no work done.

The study discovered that MAAIF had introduced a new extension approach called the Single Spine Extension System backed by a new National Agricultural Extension Policy 2016. The respondents narrated that the extension function had shifted back to the public sector managed by the MAAIF coordinated under the Directorate of Extension Services (MAAIF, 2016:2). Although the new extension policy proposes to adopt a pluralist model of extension through the single spine approach, it still does not create an enabling environment for private sector participation in extension service provision. This is contrary to the agriculture policy of 2011 which commits to pursue a private sector led and market oriented economy and work towards addressing the constraints that hinder the private sector to invest more in agriculture.

The agriculture policy specifically highlights formation of partnerships with the private sector (MAAIF, 2011:25). The extension policy, on the other hand, is silent on PPPs and does not explicitly highlight a comprehensive framework for private sector role in agricultural extension. The private sector in the extension policy is bundled up with other actors like NGOs and CSOs and yet all have different objectives and operational frameworks. In addition, many NGOs and CSOs are donor driven which compromises the sustainability of their support towards provision of extension services. A further analysis of the agriculture policy reveals that PPPs under the implementation framework are designed to support more of rural infrastructure and are not specific on agricultural components like extension. This poses a new debate on the success of the new extension policy and model given the continuous budget cuts to extension and the inadequate public extension staff (35%), the majority of whom are demotivated due to poor facilitation (MAAIF, 2016a:10).

4.6.2 Irregularities in the legal and regulation framework

The study analysed the legal and regulatory framework to establish how it facilitated the principal-agent relationship under the NAADS programme. All the stakeholders attested to

the NAADS Act 2001 as the legal framework through which the NAADS programme was implemented. However, all targeted stakeholders could not link the Act to the principal-agent relationship. An in-depth review of the Act revealed that it was not explicit on the identification, development and implementation of the PPP. The NAADS Act clearly spells out the establishment of the NAADS and all its structures including local government support for the programme. Article 24 mandates the NAADS to contract private service providers and also provided for the functions they play. However, the Act did not define the nature of the PPP to be used, the legal status of the PSPs and the principal-agent provisions governing the contracting of PSP in extension service delivery in Uganda.

Some provisions like arbitrations and regulations that support private sector emergence were obscure. One official at the secretariat confirmed that the Act was not clear on operationalising the PSP into the public extension system. The Act also created uncertainties on excessive restrictions, procedures and effective monitoring and protection of private sector interests. The procedure for penalizing both the private and public sector actors in case of any breach was not clearly elaborated.

A review of the PPP framework policy of 2010 and the Act of 2015 discovered that the policy and Act are largely designed in the spirit of mainly supporting infrastructure development projects in Uganda (MoFPED, 2010:4-6; MoFPED, 2015). Most of the definitions are inclined towards supporting public infrastructure. This is also illustrated by the major PPP models considered in the policy framework and the PPP Act, which largely apply to infrastructure and exclude service contracts that are typical of extension services. This conforms to FAO (2016:117) which points out that many countries have focused on enacting laws that target large scale infrastructure projects. This has made PPP legislation inappropriate for managing smaller sector wide PPP projects especially in the agriculture sector of developing countries (FAO, 2016:117). FAO also reports that several Latin American countries currently face this situation of unclear regulation of agriculture-related PPPs.

With regard to regulation, Feder *et al.* (2011:39) point out that the NAADS board was tasked to certify and regulate the quality of extension services provided to farmers. However, according to respondents the board was not facilitated to conduct those functions. None of the respondents was aware of regulations regarding the private service provider activities. The

available literature confirms that there was no designated entity or government department tasked to monitor or control PSP activities. As a result, PSPs did not have designated channels for reporting complaints like threats from the district and sub-county officials or requests for bribes. In addition, some farmers raised concerns over poor quality services offered by service providers, but there was no appropriate process of addressing such challenges. Farmers reported that in many cases such PSPs were awarded more contracts without any restraint.

4.7 Summary

The study has endeavoured to establish the policy, legal and regulatory challenges that affected the principal agent relationship under the NAADS project. The study discovered that there was no appropriate policy that supported and guided private sector emergence and involvement in the extension programme. This did not only lead to misinterpretations of the programme but gave an opportunity to politicians to hijack the programme, which eventually led to unforeseen transformations that diverted the programme from its original mandate. The end result was the abolition of the principal-agent relationship.

It was also discovered that the PPP policy framework in place is quite broad and inclined towards infrastructural development. This seems to be a common practice even in literature where the majority of scholars and practitioners focus on PPP policies for infrastructure development projects. There is limited information on service contracts and hardly any on PPPs in agriculture extension. It is possible that some countries copy and paste without contextualising the policy to a sector or needs and objectives of the partnership. There is need for a review of the current agriculture extension policy of 2016 to incorporate private sector participation and not bundling it with NGO and CSOs. The policy should provide for stakeholder comprehension of their dependences, expectations and implications if they fail to deliver. In addition, a sector wide policy that supports private sector involvement and innovations in agricultural extension must be developed and adopted with clear objectives and expected results. Emphasis should be made on facilitating the conditions under which the private sector operates (Feder *et al.*, 2011:37). This will not only address challenges of misinterpretations but also misunderstanding during PPP implementation.

The study also discovered that the NAADS Act and the NAADS implementation guidelines focused on the NAADS secretariat and its operations but they do not have specific clauses

that support the institutionalisation of PSPs or private sector support for agricultural extension. A law that operationalises private sector participation in agricultural extension should be enacted to encourage and protect private sector investment and growth. The law should also address arbitration processes in case the private sector player and the public regulator have grievances to resolve.

The Directorate of Agricultural Extension Services (DAES) should develop very clear guidelines to regulate participation of the private sector in agricultural extension. The regulatory body should appreciate that NGO, CSO and the private sector have different operational mechanisms with each model requiring its regulation. The public sector assumption that all actors are the same and have similar operational frameworks may present challenges in operationalizing the regulatory activities. The subsequent intervention by the regulatory body may be misinterpreted for frustrating the private sector participation in agricultural extension. Borrowing from Feder *et al.* (2011:32), viewing extension from the multi-institutional perspective is more ideal than bundling all non-public actors together.

The regulatory function should as much as possible protect the private sector from political influence and consumers from exploitation (Yong, 2010:34). The focus should be on promoting results and improved service delivery.

This study confirms that an adequate policy, legal and regulatory framework is critical for PPPs to thrive. Implementers need a broader review and more reflective analysis of policy, legal and regulatory frameworks that are suitable for PPPs and those that are not. This might support a streamlined approach that would justify some best practices for PPPs and lessons learned from some failures or gaps therein (Flinders, 2005:235). The effectiveness of policy, legal and regulatory framework is reflected during PPP implementation and contract management in addition to the value for money or quality of results generated from the partnership.

The next chapter presents the relationship between implementation management and how it influences the principal-agent relationship.

CHAPTER FIVE

IMPLEMENTATION MANAGEMENT IN THE PRINCIPAL-AGENT RELATIONSHIP UNDER THE PPP IN THE NAADS EXTENSION PROGRAMME

5.1 Introduction

The market failure in the agriculture value chain has triggered governments to consider PPPs as an alternative policy approach in delivery of public services. The emergence of the private sector into the delivery of public services has revolutionized public management and introduced new principal-agent governance structures. PPPs are considered as one of the ways to address the global challenges that require collective effort like climate change and food security. The rationale for PPPs is that they provide higher quality goods and services at lower costs, they promote innovation and adapt to rapid change and are considered to apply entrepreneurial skills or a business case in service delivery (Nisar, 2013:638; Liu et al., 2014c:3; Janssen et al., 2016:34). PPP implementation is intended to deliver reliable and timely services at agreed prices and quality standards, consistent with legal, financial probity and management accountability standards (EC, 2003:92). While some scholars and practitioners view PPP as the silver bullet that fixes government inadequacies in public service delivery, there are contestations on whether PPPs have a significant contribution to innovation and generate flexibility compared to other procurement methods (SAIIA, 2005:33; Nisar, 2013:638; Van Den Hurk & Verhoest, 2016:281). It is argued that the inherent complexities, uncertainties and ambiguities, some of which are attributed to politics or financial and technical glitches, need to be adequately managed if PPPs are to be successfully implemented (Van Den Hurk & Verhoest, 2016:281). This implies that PPP project implementation requires a lot of preparation, skills and mechanisms to develop and execute (Abdel Aziz, 2007:920).

The implementation phase of a PPP is that stage after the initial contact and negotiations have been concluded and PPP execution commenced in form of service delivery (Jones & Noble, 2008:109; APMG, 2017). Implementation involves executing the agreed plans and identifying any deviations from the planned budget and schedule using a set of measures (Ben Mahmoud-Jouini et al., 2016:146). The success of any PPP is to a large extent triggered by the capacity of the public sector to maintain the partnership agreement or contract on track or as planned. This indicates that some prerequisites for implementation management should

be applied to ensure success (OECD, 2014:4). Among them is setting clear requirements of the partnership, monitoring the performance of all parties to the contract, reporting on results, and enforcing contract provisions that are not met. An important feature of any contract is a clear and mutually understood specification of each party's contract obligation and how the contractor's performance will be assessed. The contract forms the basis for project implementation because it stipulates the specifications which guide the partnership (Reynaers, 2014:42). However, literature in Africa shows that there are challenges and gaps in the management and implementations of PPP projects (SAIIA, 2005:33). This means that the management of PPP implementation for results and periodic measurement of progress is inevitable if the projects are to generate value for money and innovation (Nisar, 2013:640).

While many studies have been conducted generally on PPPs, limited attention has been paid to implementation management yet it is a critical component for PPP success (Verweij et al., 2017:120). Hodge *et al.* (2017:278) add that there is need to scrutinise the implementation phase of PPP based on lessons from already implemented PPP projects. Studies reveal that parties tend to offer the best during PPP negotiations and much less during implementation.

This chapter has been guided by themes generated from data collected to conceptualise PPP implementation management as service contract management and performance measurement. The chapter is divided into five sections; the first section provides the introduction to the chapter followed by literature review on insights from scholarly and practitioner debates on the identified themes. The fourth section discusses the methodology which illustrates the methods that were used to collect data. The fifth section presents the empirical findings in resonance to the literature and lastly the conclusions to the chapter.

5.2 Service contract management

Innovative PPPs are emerging especially in developing countries due to governments' limited resources, investment and expertise. Their engagement in PPPs is part of a mechanism for improving productivity and driving growth in agriculture and food sectors around the world (Farquharson & Yescombe, 2011:14; FAO, 2016:3).

PPPs establish a contractual cooperation and relationship between the public sector (principal) and the private sector (agent) as a service provider where both share risks and benefits (Yang *et al.*, 2013:301; Van Den Hurk & Verhoest, 2016:282; Hashim *et al.*,

2017:265). This establishes a principal agent relationship where the partners are bound by a contract (Iossa & Martimort, 2015:5). The agency relationship requires interdependence of actors on each partner focusing on their core competences. Therefore, PPPs aim at bringing parties together to form a sustainable collaboration. However, due to the complexity of PPPs sometimes emanating from information asymmetry and moral hazard, there is need to facilitate and support the PPP implementation process to realize the project objectives (Edelenbos & Teisman, 2008:618). It is imperative that prior to implementation, the parties agree on the content of project components including the framework of cooperation and the rules governing their conduct (Edelenbos & Teisman, 2008:617).

A contract is a suitable tool that specifies each party's obligations in a partnership, defining what is and what is not permissible, and it imposes penalties for inappropriate behaviour (Javed *et al.*, 2013a:620; Van Den Hurk & Verhoest, 2016:282; APMG, 2017). For instance, often times PPP projects involve heavy investments which tend to create deviant behaviour among partners who get engrossed in moral hazards characterized by opportunism (Robinson & Scott, 2009:183; Cruz & Marques, 2013:473). The contract aims at aligning the diverse interests of the partners in a PPP into mutually agreed commitments and address such acts of opportunism by establishing standards which become a form of regulation (Van Den Hurk & Verhoest, 2016:279-284). The contract serves the purpose of managing and coordinating the relationship in form of assigning roles and responsibilities, regulation and monitoring (Van Den Hurk & Verhoest, 2016:282).

A service contract is ideally apposite when an agent's operational costs are less than the principal's in-house costs (Robinson & Scott, 2009:183). Contracting is considered a fundamental task facing the public sector aimed at reducing service costs through competitive efficiencies and economies of scale. This has culminated into a new school of thought that the public sector should concentrate on overseeing private sector delivery of public services rather than directly provide the services (Reynaers, 2014:41). An example is drawn from Johnston and Romzek (2005:118) who observe that the public sector in the United States is devoting more time and resources to managing contracts rather than engaging in direct service delivery with the expectation that this will generate better service delivery and increase accountability. A service contract poses new management challenges and complexities, which require the public sector to ensure there is efficient and effective accountability of private sector performance. Johnston and Romzek (2005:118) emphasize

that having a framework that demonstrates performance for partnerships and contracts is one of the priorities for managing PPPs.

A PPP performance framework is effective if the contracting parties comprehend and agree in advance the mutual expectations, responsibilities and obligations. This implies a more collaborative or partnership relationship where the public and private sectors become partners in service delivery thereby departing from the traditional contracting system where the public sector enjoys hierarchical processes and service provider is referred to as a contractor. Some empirical studies reveal evidence of challenges in managing service contracts compared to goods and infrastructure projects. This is attributed to the fact that service contracts require on-going managerial attention from the public sector. In addition, service contracts with unclear outcomes pose even greater inability to manage (Johnston & Romzek, 2005:118). One prominent challenge faced by the contract management team is the manifestation of different, competing and changing expectations for performance held by diverse, legitimate and often conflicting sources of expectations (Johnston & Romzek, 2005:121).

The dilemma the public sector faces is the effectiveness of the contract amidst the political environment that exerts pressure on the entire contracting value chain. Brown *et al.* (2006:323) argues that while contracting can yield better service delivery, it can be a disaster, depending on the underlying market conditions and management efficacy. The uncertainties that are engulfed in PPPs influence public sector to sign incomplete contracts to mitigate any changes or innovations that may arise (Hart, 2003:C70; Marques & Berg, 2010:4; Cruz & Marques, 2013:473). Johnston and Romzek (2005:119) argue that incomplete contracts are vulnerable to information scarcity, adverse selection and moral hazards, which are embedded in the principal-agent relationship (Robinson & Scott, 2009:183). In this case, managers clearly need to have a vast understanding of the laws, ordinances, and administrative statutes especially for the NAADS programme which managed a network of agents operating in different districts and sub-counties (Brown *et al.*, 2006:325). The management of a network of agents even poses more complexities in coordination and unclear standardised measurement (Johnston & Romzek, 2005:123). The implementation of any PPP, therefore, requires proactive management which bridges the gap between the principal and the agent in order to react appropriately to unforeseen situations that arise for the purpose of ensuring that goods and services are provided according to the agreement and output specifications (EC, 2003:90; Cruz & Marques, 2013). Contract management is consequently essential and

describes the procedures and processes required to ensure that the appropriate service is provided throughout the life of the contract (EC, 2003:90; Cruz & Marques, 2013).

Contract management aims at ensuring that both agents and public employees achieve service delivery values of efficiency, quality, and equity (Brown *et al.*, 2006:325). Cruz and Marques (2013) suggest that an effective contract management framework should ensure that the needs and expectations are met in executing the project, proactively and communication to various stakeholders. Brown *et al.* (2006:325) further propose the need to build contract management capacity to acquire, nurture and monitor the physical infrastructure, financial resources, and perhaps more importantly, human capital in delivery of their tasks. Thus, any opportunistic behaviour will be deterred by carefully designing contracts, offering incentives, and monitoring the agents so that they perform according to contract specifications (Brown *et al.*, 2006:325). Contract management should also enforce and facilitate disciplining agents who fail to meet contract standards. Brown *et al.* (2006:325) further suggests that competition for contracts can help overcome principal–agent problems especially those originating from relationships in which a principal contracts with an agent for delivery of goods and services where the agent has expertise.

5.2.1 Dilemma in contract management

There are mixed reactions on the effective management of PPP contracts with some scholars arguing that in developed countries such contracts have successfully achieved their objectives of value for money, better quality, effectiveness and efficiency in delivery of social and economic infrastructure projects (Javed *et al.*, 2013a:620; Love *et al.*, 2015:26). Private Finance Initiative (PFI) projects in UK and Australia are reported to be cost saving and delivered on time (Henjeweale *et al.*, 2011:2; Iossa & Martimort, 2015:6; Love *et al.*, 2015:26). On the other hand, there are also many PPP contracts especially in developing countries that have faced serious challenges which include cost over-runs and performance failures have often led to pre-mature contract termination (Bloomfield, 2006:407; Yuan *et al.*, 2009:254; Marques & Berg, 2010:2; Henjeweale *et al.*, 2011:2; Iossa & Martimort, 2015:6; Love *et al.*, 2015:26). Iossa and Martimort (2015:6) adduce literature in Latin America and Caribbean where governments have failed to implement contracts and eventually abandoned their PPPs. In addition, high transaction costs and unrealistic expectations have made PPPs in Central and Eastern Europe less successful than in other countries (Iossa & Martimort,

2015:6). Robinson and Scott (2009:182) emphasise that poor management of service contracts affects achievement of value for money for PPP contracts.

Incomplete contracts have paved way for re-negotiation which Marques and Berg (2010:2) & Iossa and Martimort (2015:6) agree have now become a common phenomenon especially after signing the contract (Yong, 2010:50). Yong (2010:50) further argues that renegotiation suggests moral hazards on either the principal or agent in an attempt to secure supplementary benefits, rather than a lack of completeness in the contract. Yong (2010:50) recommends that renegotiation attracts considerable time and costs and should be conducted only if it is addressing a critical blocker to the PPP contract. Incomplete contracts are also considered a source of unexpected service delivery challenges because they do not offer sufficient accuracy to cover all service delivery options (Robinson & Scott, 2009:183). As a result, partners easily take advantage of the gaps therein to shirk or advance their own interests.

Scholarly debates suggest that the duration of the contract affects the management of a PPP. Bloomfield (2006:408) debates that shorter term contracts tend to generate more competition and better performance because the private sector envisages renewing the contract in the short run. This compels the agent to provide high quality services if they are to retain or renew their contract. Short-term contracts benefit the public sector because they do not get stuck with a non-performing private sector firm for a long period of time. Bloomfield (2006:408) further argues that long-term contracts defeat the idea of competition because the service provider enjoys a monopoly for a long period of time say 25 years. This implies that stakeholders miss the opportunity of better offers during the life of a long-term contract which often attracts huge penalties and compensation in case of pre-mature termination.

Contract management becomes a challenge when the partners' obligations are not clear. The contract stipulates the private sector obligations in the delivery and reporting on progress and achievements of the project objectives. On the contrary, sometimes the government obligations are not well concretised within the contract, which reprobates into the assumption that the contract will be self-regulating and self-reporting. This weakens the overall benefits of the PPP because in this case, no deliberate effort is made to set up a contract management unit that conducts regular monitoring and control of any deviant behaviour that undermines successful contract execution. APMG (2017) recommends a contract management team as a practical solution to addressing government's laxity in contract management. In South Africa,

the city of Johannesburg established a specialised Contract Management Unit (CMU) to provide on-going support and advice to Johannesburg's 12 utilities, agencies and corporate entities and to monitor and evaluate their performance (Yong, 2010:49). The management team acts on behalf of the government operating within the confines of the public regulatory framework. The team may be drawn from the government department or ministry or a separate entity entrusted with the mandate of contract management. The team's mandate often times is contextual (APMG, 2017) but aiming at achieving the objectives of the partnership. Javed *et al.* (2013a:629) suggest that the contract management team should be engaged at conception stages of developing project requirements which is likely to facilitate an appropriate performance measurement approach.

It is imperative to note that most of the available literature on PPP contracts is structured to deliver tangible products like dams and roads with very few examples specific on provision of services especially in the agricultural sector (IMF, 2004:3; Brinkerhoff & Brinkerhoff, 2011:3). This is confirmed by the voluminous literature on infrastructure development mainly in energy, roads, water and sanitation, health and education, with relatively new information in the agriculture sector (FAO, 2016:3). In a survey of PPPs in developing countries between 1990 and 2003, Hammami, Ruhashyankiko, and Yehoue¹ (2006, 12) found that three types of PPP accounted for 70% of all projects: build-own-operate PPPs (BOO) accounted for 38.9%, build-own-transfer (BOT) for 17.9% and build-rehabilitate-operate-transfer (BROT) for 13.2%.(Loxley, 2013:487). This affirms that most of the available literature on PPP models focuses on infrastructural development with very little information citing specific models for agriculture extension.

While the service contract by definition is considerably more suitable for provision of agricultural extension services, most of the cases available in literature are associated with PPPs in technology transfer and innovation but do not explicitly highlight the PPP structure adopted. In addition, most of the literature on technology transfer either focuses on PPPs in research and development or prioritizes provision of inputs in order to promote a specific enterprise.

5.3 Performance Measurement

PPPs are conceived as a better policy approach to provide public services especially in health, education, transport, energy and water sectors in an effective and efficient manner

(Gebremedhin, 2010:6; Liu *et al.*, 2014c:1). There are debates, however, on the performance of many PPPs with some scholars suggesting that PPPs have not performed according to the expectations (Liu *et al.*, 2014c:1). Even in economies like Australia and the United Kingdom where PPP implementation is considered to be good, ineffective performance measurement has been recorded and is considered a big challenge (Yuan *et al.*, 2009:254; Love *et al.*, 2015:26). This has resulted into deliberations on structuring PPPs for better performance within the auspices of delivering value for money, sharing costs and risk management (Liu *et al.*, 2014c:1).

Performance is referred to as the “extent to which a development intervention operates according to specific standards or guidelines, or achieves results in accordance with stated goals or plans” (Gebremedhin, 2010:6). It is argued that establishing a mechanism that measures performance is a positive pointer towards improved quality delivery of PPP projects (Liu *et al.*, 2014c:1). Several scholars agree that performance measurement is a core activity of PPP contract and project management in many countries (Liu *et al.*, 2014c:1). These scholars further advise that for performance measurement to be robust there should be project specifications that provide interpretation of project concepts, scope of services, and intended results. The failure to establish clear, specific and effective performance measurement system in PPPs can activate delivery of good and services which are below the expectation (Javed *et al.*, 2013a:615; Liu *et al.*, 2013:499). Limited studies have been conducted on performance measurement in PPPs especially in agricultural extension despite the central role it plays in improving and satisfying stakeholder expectations (Liu *et al.*, 2014c:2). In addition, very few studies have focused on the relationship between the principal and agent with many highlighting the internal management of performance measurement in a firm or organization.

5.3.1 Concept of performance measurement

Performance measurement is defined as a “process of quantifying and reporting the effectiveness and efficiency of the action performed towards influencing organizational objectives” (Liu *et al.* (2014c:2). It is the measurement and comparison of the performance of development interventions against stated goals (Gebremedhin, 2010:6). Melnyk *et al.* (2014:173) call it measurement of the current level of performance in comparison to the desired performance level. Gebremedhin (2010:6) and Love *et al.* (2015:25) view performance measurement as regular and continuous monitoring and recording of any

successes and challenges in line with the project targets and objectives (termed as implementation measurement) and the outcomes achieved (termed as results measurement).

Initially, performance was measured predominantly using financially based measurement approaches which include return on investment, discounted cash flow, residual income and economic value added. However, some scholars later criticized them for not aiding proper decision making. The critics recommend non-financial measurement methods because they capture a broader spectrum of information compared to the financial based performance measurements, which describe the outcome of managerial actions or decisions after they occur by at least one reporting period. The proponents of the non-financial approaches argue that managers require current, up-to-date, and mostly non-financial information to be able to take better decisions or actions on PPP performance (Bassioni *et al.*, 2004:42). Consequently, performance measurement has evolved from focusing on cost, time and quality especially in infrastructure projects to cover the quality of relationships among stakeholders, customer satisfaction and highlighting areas of improvement in a PPP project (Yang *et al.*, 2013:46; Jääskeläinen *et al.*, 2014:1468-1469)

Gebremedhin (2010:1) notes that being able to learn from what worked well and what did not go well in terms of performance is critical in improving the management of PPP projects. Performance measurement, therefore, involves appreciating the processes in terms of reviewing the standard operating procedures to identify what is known and what is not known. Furthermore, performance measurement checks the appropriateness of decisions made and indicates whether planned and expected outcomes have been met (Love *et al.*, 2015:27). Furthermore, performance measures are essential in not only building trust but also aligning stakeholders on the intended outcomes of the PPP project (Forrer *et al.*, 2010:481). Johnston and Romzek (2005:122) points out that performance measures and deliverables act as pointers to guide delivery by the private actor.

Scholarly debates reveal that there is an agreement that PPP strategic objectives form the foundation for PPP performance measurement and are designed to address not only the public sector strategic and development plan but also the public demand for better service delivery (Yang *et al.*, 2013:43; Love *et al.*, 2015:27). Scholars argue that one of the main strategic objectives of PPPs in most economies is attainment of the best value out of the PPPs commonly referred to as value for money (VfM). VfM is “the optimum combination of

whole life cost and quality to meet the user's requirement" (Liu *et al.*, 2014a:502; Love *et al.*, 2015:27). VfM is used to measure PPP performance and usually tests two options: potential or actual outcomes (Henjeweale *et al.*, 2011:2). Value for money is often times contextually determined with the UK and Australia mainly using the Public Sector Comparator (PSC) which compares the cost of proposed PPPs with the benchmark cost or a cost estimation of the specific service using traditional procurement (Liu *et al.*, 2015:3; Love *et al.*, 2015:27). This approach mainly emphasises cost performance of the PPP projects which is short of achievement of results, quality and stakeholder requirements reflected in the definition of value for money (Henjeweale *et al.*, 2011:3). It should be noted that performance measurement may not be generalised to a specific PPP contract or jurisdiction/country or sector and should, therefore, reflect the context in which it is applied (Liu *et al.*, 2015:5).

Studies conducted on performance measurement have majorly targeted the infrastructure sector (Yuan *et al.*, 2009:254) and minimal focus is placed on delivery of services especially in the agricultural extension. Some scholars assert that many PPP projects cannot explicitly report on what has been delivered due to inadequate evaluations yet there is a consensus that performance measurement plays a significant role in business success (Yuan *et al.*, 2009:254). The studies have also emphasized time, cost and quality for infrastructure projects (Love *et al.*, 2015:27) which is equally important in agricultural extension but excludes the measurement of progressive results. Many PPP projects tend to measure performance at the end of the project (post-evaluation) (Love *et al.*, 2015:27) without necessarily documenting progressive measurements which can help to project overall success of the PPP project. Progressive measurement requires timely and accurate information to facilitate performance measurement and appropriate decision making for PPP projects. The timeliness of information can be addressed by adoption of mobile information and communication technology in agricultural extension.

5.3.2 Prerequisites for performance measurement

It is suggested that establishing an effective performance measurement approach begins with understanding the needs and expectations of stakeholders involved in delivery of the PPP (Liu *et al.*, 2014c:5). In PPP performance measurement, the public sector defines the expectations which include scope, service level, outcome measures, costs, financial incentives, sanctions, monitoring and reporting requirements, in line with the policy and legal framework (Reynaers, 2014:42). The effectiveness of PPP performance measurement

depends on clear targets details, acceptable procedures of measuring performance results, and the reporting regime. Some scholars recommend that a standard operating procedure for verifying performance against the contract and for responding to any contract deviations should be instituted.

In resonance to the principal agent theory, an incentive payment is considered vital for any performance metric coupled with reporting on and accounting for payments made (ADB, 2008:87; Forrer *et al.*, 2010:482). Javed *et al.* (2013b:18) argues that a satisfactory delivery of an output should trigger payments in accordance with the agreed modalities. On the other hand, failure to meet the standards should attract deductions to the agreed private sector fees. In some projects such as the Middle East water sector, auditors evaluated the private sector's declared performance against the targets set out in the management contract, once or twice a year. A simple qualitative scale is used to measure the performance from excellent to poor performance (ADB, 2008:89). The success of performance measurement and administration of the incentive structure depends on clear parameters for measuring targets and a framework for taking corrective action (FAO, 2016:122).

Many studies on performance measurement have focused on infrastructure development and have not exhaustively provided appropriate performance measures for services. Scholars who advocate for more service based performance measurement highlight the need to adopt a holistic approach which identifies and measures components of a value chain, pointing out innovations, while shifting the measurement from value in use of a service to the value embedded in exchange of the service (Jääskeläinen *et al.*, 2014:1468). Service performance measurement emphasises the continuous presence of the customers as key players in assessing the delivery of a service (Jääskeläinen *et al.*, 2014:1469).

5.3.3 Output specifications

Many PPPs emphasize output specifications as one of the parameters which describe the standards to be met (ADB *et al.*, 2014:158; Reynaers, 2014:42). Javed *et al.* (2013a:613) argues that the agents ideally execute a PPP project according to the output specifications. This means that the process of defining outputs in PPP contracts is very critical. ADB (2008:84) defines an output based contract as contracting out of basic service provision to a third party such as private companies, NGOs, CBOs, and even public service providers with subsidy payment tied to the delivery of previously specified outputs. Javed *et al.* (2013:7)

defines outputs as specific requirements and often activity-based, with objectively measurable product. The HM Treasury (1998) stipulates that output specifications contain aspirations, aims, objectives, purpose, scope, and performance requirements. They also address standards of compliance, constraints, risk allocation and encourage alternative or innovative solutions (Javed *et al.*, 2013a:613). Outputs, therefore, provide for the standards through which performance may be determined and thus the need for performance standards to be clearly specified including how they will be measured and monitored, (Javed *et al.*, 2013a:615). It is proposed that output specifications ought to have enough detail of client requirements and demands for the services to be delivered, rather than how the services should be delivered (Javed *et al.*, 2013a:619; Javed *et al.*, 2013b:7). The benefit of the output specification to the agent is that it helps the private sector to comprehend the scope, design parameters, functionality and features of the service or buildings or structures to be constructed for infrastructure projects (Javed *et al.*, 2013b:7).

Traditionally, the public sector developed the input specification predominantly referred to as prescriptive specifications (Lam *et al.*, 2003:121; Robinson & Scott, 2009:181). However, Javed *et al.* (2013a:613) notes that there has been a shift in the prescription of specifications from the input-based to output-based specifications which capture performance requirements for PPP projects. The input-based specifications may still be applicable for some PPP projects including agricultural extension in order to establish minimum standards or guidelines for the private sector to innovate solutions that equate to or surpass the stipulated performance with demonstrable cases of application (Javed *et al.*, 2013a:628). Lam *et al.* (2003:122) argues that prescriptive specifications act as guiding principles for the service provider to plan and price activities with better precision. Regular monitoring of service providers is recommended for prescriptive specifications if compliance is to be achieved. In addition, partners should note that any proposed or identified alterations to the specifications attract costs, which are borne by the public sector.

On the other hand, output-based structures emphasize that the private partner should be involved in developing the specifications in order to comprehend them and be able to generate long term interest in the project, and also ascertain that they are clear and unambiguous (Javed *et al.*, 2013a:614). In addition, OECD (2012:7); Javed *et al.* (2013a:619) recommend that the primary beneficiaries should also be engaged in pointing out the performance aspects that are important to them. Involving end-users in design and monitoring

increases the likelihood of the effort being perceived as legitimate, fair and understandable (OECD, 2012:7). It is suggested that defining outputs can be instrumental in achieving better alignment of service specifications with user expectations and exert pressure on service providers to meet service standards. Bloomfield (2006:407) warns that the process of defining output specifications is challenging, complex, time consuming and often times results in incomplete contracts which don't cover all the contingencies (Javed *et al.*, 2013a:619). Javed *et al.* (2013a:619) point out that the partners should not be subjective in developing output specifications in order to avoid different interpretations and arguments during execution (Javed *et al.*, 2013a:619). Some of the reviewed literature seems to suggest that outputs can be linked to outcomes or results; however, some scholars argue that outputs are products, which may not necessarily be referred to as results in service contracts. The proponents of this approach suggest outcome-based specifications as an alternative to measuring results.

5.3.4 Performance based specifications

Lam *et al.* (2003:122) present a new dimension on performance-based specifications which target end results or outcomes (Martinez *et al.*, 2007:306). Gebremedhin (2010:1) highlights the increasing emphasis on outcomes as opposed to activities and outputs. Outcome-based specifications are instigated by the innovations the private sector has developed in delivering different projects. It is presumed that the outcome based specifications provide the private sector with an opportunity to innovate on diverse technologies for delivering the results (Johnston & Romzek, 2005:122). Javed *et al.* (2013:7) define an outcome as the strategic end results stemming from a long-term vision. Lam *et al.* (2003:122) assert that under performance based arrangement the principal ('specifier') states the results and the private sector suggests the best approach to achieve the results, the success criteria by which performance will be measured and the means of verification. Developing a criteria of performance is quite challenging especially where there is inadequate performance data for the proposed innovations.

While outcome based parameters emphasise results or changes across the impact pathway, they also present new challenges related to political incongruities on performance standards. Another challenge is the time lag between the intervention and the desired outcome and the fact that in most cases the contractor seldom has control over outcomes (Johnston & Romzek, 2005:122). Unlike the infrastructure PPP projects, scholars in agricultural extension seem to

suggest that performance should be measured across the impact pathway since the agent can have some control over delivering the desired outcome. Birner *et al.* (2009:350) explain that the impact pathway is used to determine the quality of outputs of an advisory service and how the outputs translate into immediate outcome, then to intermediate outcomes and finally to impact or ultimate outcome. Emphasis is that outcomes are realised all along the impact pathway and therefore should be tracked at different times for different purposes (McDermott *et al.*, 2015:599).

5.3.5 Evaluation of Public Private Partnerships

The evaluation of PPP projects is considered one of the commonly used approaches in measuring PPP performance (Liu *et al.*, 2014b:1). Project evaluation is defined as a systematic method used for collecting and analysing information related to the characteristics of the outcome, to improve effectiveness and efficiency (Liu *et al.*, 2014b:1). PPPs may be generally subjected to two types of evaluation; ex-ante evaluation which is a baseline study that is used to support investment decision making in policy development, project preparation and initiation; and ex-post evaluation which is a comparison between expected outcomes and actual achievements in contrast with the baseline (Liu *et al.*, 2014b:1). A number of studies have been conducted on ex-post examination associated with cost and time performance of PPP infrastructure projects, which many PPP projects have adopted to measure performance. Scholars note the complexities embedded in conducting PPP evaluations especially for long term PPP contracts. The complexities are compounded with single-dimension absolute cost and time assessments, which complicate the capture of a comprehensive measurement on PPP projects performance.

Consequently, some scholars have suggested an innovation to expand and reinforce the ex-post performance evaluation framework to include performance indicators (Yuan *et al.*, 2009:263; Yong, 2010:48; Liu *et al.*, 2014b:2). Yuan *et al.* (2009:263) suggest the introduction of a key performance indicator system (Liu *et al.*, 2014b:2) with five measurement aspects which include physical characteristics of the project; financial and marketing indicators; innovation and learning indicators; stakeholder indicators; and process indicators (Liu *et al.*, 2014b:2).

5.3.5.1 Key indicators in performance measurement

Hashim *et al.* (2017:266) defines Key Performance Indicators (KPI) as a tool of attribute to assess effectiveness and performance of PPP projects on already defined performance objectives. Yuan *et al.* (2009:254) refer to KPIs as compilations of data measures used to assess and evaluate the performance of a PPP operation: “KPIs are measures that are indicative of performance of an associated process” (Liu *et al.*, 2014c:4). KPIs are, therefore, performance measures used to determine any given change generated by a PPP project. The accuracy on performance is attained only when appropriate KPIs are determined, monitored and analysed (Yuan *et al.* 2009:254). A plethora of PPP studies has linked KPIs to infrastructure development as a common practice to measure project performance through periodic reviews or at the end of the project. Liu *et al.* (2014c:4) assert that the KPIs in infrastructure development have been mainly determined by use of output specifications which some scholars have criticised as unable to support monitoring and project improvement under construction. The argument is that output driven indicators cannot provide insights into the performance of the process, and further that KPIs in this case become useful after project completion (Liu *et al.*, 2014c:4).

The gaps in this approach prompted other scholars to suggest different performance frameworks like the balance score card, progressive/phased project life cycle performance management, and the performance prism which highlights stakeholder satisfaction, strategies, processes, capabilities and stakeholder contribution as appropriate performance measurement (Liu *et al.*, 2014c:5). These tools have not sufficiently addressed performance measurement issues for service contracts. It is recommended that performance measurements – which target continuous measurements over the life-cycle of the project – should be emphasized (Liu *et al.*, 2014c:6). Birner *et al.* (2009:350) note that performance indicators can be applied to measure the quality of advisory services. However, the measurement depends on the goals of the advisory services. The researchers add that identifying performance indicators for advisory services requires a participatory approach involving policy-makers, service providers and primary beneficiaries. The indicators may be linked to the accuracy and relevance of the agriculture content, timeliness and outreach of the advice, quality of the partnerships established and the feed-back effects created, efficiency of service delivery and any other economic performance indicators (Birner *et al.*, 2009:350). Key performance indicators have been criticized for not providing insights into improving performance, making their use limited in decision making (Yang *et al.*, 2013:47).

5.3.6 Performance monitoring

Monitoring performance is considered an essential activity of contract and project implementation with both the public and private sector having an obligation to participate in the PPP monitoring process (Yuan *et al.*, 2009:254; Liu *et al.*, 2013:499). Monitoring aims at ensuring that the PPP project is implemented according to the intended plans, identifying challenges and capturing timeliness of changes along the pathway (McDermott *et al.*, 2015:596). The process ensures that there are no gaps in implementation and all critical activities necessary for delivering the expected outcomes are undertaken. FAO (2016:122) maintains that a robust monitoring system is vital for the periodic tracking of project progress and taking correction when necessary (FAO, 2016:122). In so doing, any non-compliance in PPP project implementation is prevented. Reynaers (2014:42) recommends a joint monitoring plan to measure the output specifications linked to a financial system which determines the periodic amount accruing to the service provider (Reynaers, 2014:42). In this case, a discrepancy associated to non-compliance or poor performance between the output specification and actual service delivered would result into a financial penalty to the service provider (EC, 2003:90; Robinson & Scott, 2009:182; Javed *et al.*, 2013a:620; Reynaers, 2014:42; Van Den Hurk & Verhoest, 2016:281). According to Reynaers (2014:42), the reduction in payment stimulates performance.

Monitoring may take different forms which include private sector self-monitoring and reporting, independent audits and stakeholder feedback all based on agreed performance standards (Javed *et al.*, 2013a:620). Brown *et al.* (2006:328) add that the beneficiaries may also conduct monitoring not only to compel private sector to deliver services commensurate to specified standards but also act as early warning systems for any agents deviating from agreed positions, before they are detected by the public sector structured monitoring systems (Robinson & Scott, 2009:182). Robinson and Scott (2009:182) point out that the effectiveness of an M&E system depends on appropriate measurable and identifiable performance metrics that represent the outputs or outcomes of service being delivered. Johnston and Romzek (2005:120) add that the principal's capability to assess the agent's performance and hold the private sector accountable for their performance also enhances performance monitoring. Brown *et al.* (2006:328) also note that a strong legal instrument should be used to back up effective monitoring. The argument is that some information from monitoring activities that are not contractually recognized may not be used to evaluate agents.

However, the success of the monitoring mechanism depends on how easy the stakeholders can assess the quantity or quality of services (Brown *et al.*, 2006:326).

5.3.6.1 Some contests in performance monitoring

Literature suggests that PPP contracts are prone to incomplete contracts, which pose a threat to performance monitoring. These contracts sometimes are characterized by abstract standards which make the principal vulnerable to unscrupulous agents who may exploit their information advantage by lowering service quality and quantity (Brown *et al.*, 2006:326; Marques & Berg, 2010:4; Javed *et al.*, 2013b:12). While Marques and Berg (2010:4) suggest the use of experts and independent body to inspect and monitor the development of the project in such instances (Yong, 2010:50), Brown *et al.* (2006:326) recommend the use of proxy indicators for desired outcomes which may not be straight forward to measure.

Another problem faced by performance monitoring is linked to supervising service quality, resolving contractual disputes and customers' complaints, applying sanctions and performance rewards. In addition, performance monitoring also faces trials in participating in potential renegotiation, addressing early termination of contracts, overseeing asset transfer, and specifying terms for the renewal of PPP contracts (McDermott *et al.*, 2015:597). FAO (2016:123) on one hand suggests that mechanisms that promote regular sharing of experiences and assessment of results may be instituted for enhanced learning and better management of PPP projects. Javed *et al.* (2013a:615) on the other hand propose social exchange of knowledge among stakeholders to generate a common understanding of the project while Marques and Berg (2010:6) point towards regular public discussion of PPP performance as a measure to share performance results to the public and perhaps keep the service providers in check for services delivered. The more information that is available about the project, the easier it is to identify what worked in one context and use the information to make decisions on what to adopt in contexts where the project experienced many challenges (McDermott *et al.*, 2015:597). A system committed to continuous improvement cultivates a culture of learning and innovation. It is suggested that learning involves capturing lessons learned and using them to develop innovations for continuous improvement. However, Liu *et al.* (2014c:6) observe that many organizations especially in the construction industry have not developed systems for documenting lessons learned.

5.4 Research Methods

The study adopted a qualitative approach, reviewed literature and in-depth semi-structured interviews as methods of collecting data. It employed purposive sampling to draw data from the NAADS secretariat, district and sub-county field offices. Private Service Providers and farmers were also selected. The goal was to select participants who were involved in implementation of the NAADS programme and were therefore in the position to discuss any implementation aspects of the programme (Patton, 2002; Neuman, 2007). Semi-structured interviews were conducted to gather empirical evidence on stakeholder comprehension on the PPP structure that they were implementing during the NAADS programme. The stakeholders interviewed included NAADS officials at the secretariat, district and sub-county who were purposively selected. Private service providers and farmers were also interviewed following a snowballing process. The principal-agent theory formed the initial guide for the analysis while an inductive approach was used to interpret data. The analysis of findings guided the re-construction of the conceptual framework to integrate the theoretical and empirical concepts.

5.5 Discussion of findings

In this section, the findings are constructed in two major segments, which relate directly to the two themes identified in the literature review for the implementation management in PPPs.

5.5.1 Service contract management

The study discovered that service contracts were awarded to PSPs to deliver extension services to farmers. However, empirical findings reveal that participants had divergent interpretations regarding the type of contract that the NAADS programme had with the private service providers. Some participants defined the arrangement as a PPP while others perceived it to be the traditional procurement method. Only a few could not confirm whether it was a PPP or not. One participant at the secretariat said, "...it was not a PPP but just contracting out..." Another participant at the district reported that, "...the NAADS programme did not implement a PPP but just gave out contracts to private service providers".

At the secretariat, a participant mentioned that, "...there were misunderstanding and misconceptions about the model being implemented." One of the technical people concluded that they had some services offered under PPP while others were contracted out. Many

respondents repeatedly used the phrase ‘contracting out’, but the majority could not substantiate it. Further probing pointed towards the traditional procurement method. The interpretation of this finding is that the different actors in the NAADS programme did not have a harmonized position or understanding of the nature of PPP contract and, therefore, each stakeholder seemed to have their own interpretation of the modalities or context of the PPP they were implementing. This contradicts the recommendation by Van Den Hurk and Verhoest (2016:279-284) and (Reynaers, 2014:2) of first understanding specifications and interests before turning them into the mutually agreed commitments in a PPP.

The gaps emerging out of the failure to have a common position on the nature and characteristics of the contract type created cracks which affected sustainable collaboration between the principal and the agent. The responses indicate that the contract failed to align the interests of the partners into mutually agreed commitments. The majority of the PSPs said that they were not treated as partners on the project but as contractors. It is not surprising that PSPs often received threats that their contracts were going to be terminated without any due process. Many PSPs reported having challenges with some members of the Procurement Committee at the sub-county but with no clear process of addressing their grievances. The contracts, which would have bound the behaviour of both the principal and agent, were only signed for compliance purposes since to many PSPs the entire process was often times compromised before contract signing. The contract should have lured the agents to innovate and effectively support the programme, but they degenerated into actions of less value to the principal and farmers (Bergen *et al.*, 1992:5). PSPs said that it became an illusion for them to effectively support the public sector in delivery of extension services. As a result, rather than work towards interdependence, the principal began competing with the agent for resources meant for operations, in form of asking for ‘kick backs’. This overstretched instead of strengthening the relationship between the principal and the agent because each party aimed at fulfilling their individual interests.

Literature suggests that short-term contracts promote competition among service providers and improve quality in anticipation of renewing the contract. The study noted that the duration of most PSP contracts ranged from 6 months to 3 years. However, the principle of competition did not apply because PSPs reported that the contracting process was flawed, with contracts either awarded to non-qualified service providers or friends to the politicians and project staff. While some participants claim this challenge was caused by a shortage of

competent service providers, others report that the contracting process was characterised by corruption and ‘kick-backs’. This indicates that the contract management capacity of the procurement committee was weak and not vigilant on service delivery and efficiency. This weakness affected the quality of services provided and thus failure to fulfil the contract requirements in many parishes.

Many studies propose penalties for such inappropriate behaviour, but study participants reported that apart from very few cases, they do not recall an institutionalized process where private service providers were punished for poor work or non-delivery of services, nor were politicians and project staff sanctioned for engaging in inappropriate behaviour. One farmer said that some PSPs who had been recommended for blacklisting continued to get contracts to the dismay of many community members. These findings present a clue that the contract management process was not adequately managed, which resulted into agency problems that influenced the behaviour, expectations, interests, information and control mechanisms that affected the agency relationship. The principal-agent relationship was hit by poor coordination and challenges in meeting the needs and expectations of the partners.

5.5.2 Performance management

A probe into performance management of the principal-agent relationship revealed that the majority of participants at the secretariat, district and sub-county were able to articulate the performance monitoring process for services offered by the agents. The responses confirmed that the programme had designed a framework for regular and continuous monitoring of activities against targets. It was revealed that the procurement committee at the sub-county chaired by the sub-county chief was responsible for contracting, monitoring, verifying and evoking contracts where necessary. In addition, the Farmers’ forum (FF) reviewed the PSP reports in line with the agreed targets and verified the activities conducted before recommending payment. Another participant added that the district NAADS coordinator (DNC) and Sub-county Farmer Forum also took part in reviewing the activities performed by the service providers.

While monitoring performance was a critical activity in the programme, it was noted that the performance monitoring team was not well facilitated to conduct their work. As a result, there were reports of reluctance of some partners to participate in monitoring visits. Performance monitoring was also not backed up by a robust performance management framework. The

majority of participants were able to interpret the concepts and scope of work but failed to articulate how results linked to services offered by the PSP would be determined. In addition, participants could not express the objectives of the monitoring visit while others at the sub-county said that there was no standard operating procedure for monitoring and verifying performance against the contract. One of the participants said that, “the committees did not know their roles and responsibilities”. Another one mentioned that while the policy mandated the farmers to engage in regular monitoring, “some farmers were not empowered to monitor the programme and many times farmers left the activity to the sub-county officials”. The paradox here is that it is the farmers who can ably observe and determine the effectiveness of extension support, so staying out of the monitoring visits was a disservice to the programme.

It was also discovered that the performance management tools were designed with the assumption that programme areas were homogenous across the country. As a result, some participants testified that the first data collection tool was “too complex and assumed to be ‘a one size fits all’”. This tool failed to deliver the required information and it was abandoned. It was revealed that community-based facilitators who supported the collection and delivery of regular monitoring were also not adequately facilitated. Participants observed that technical audits would also be conducted where the specialist visited sites and reviewed targets against the actual plans. All these efforts were made to ensure value for money, but many farmers insisted that PSPs would compromise the team to report contrary to the reality on the ground. This created a dark cloud around the actual activities of some PSPs. To emphasize the moral hazard that engulfed the principal and agents, one participant clarified that “officials did not mind about the expense and quality but the (personal) benefit from the contract”. A PSP also attested that in some instances performance was measured by the high propensity to absorb the budget (budget expenditure) while others determined performance based on how much is paid back as ‘kick back’. It is the failure to effectively manage performance that created loopholes within the procurement committees at the sub-county to enforce punitive actions against inappropriate performance or payment for untraceable work. This did not only affect the quality of services provided by PSPs but also the relationship and customer satisfaction levels. This challenge paints a picture of weak commitment, coordination, ineffectiveness and unenforceable accountability which later led to abolishment of private provision of extension services (Anderson & Feder, 2007:2361).

It was revealed at the secretariat that the NAADS programme predominantly adopted output specifications to measure PSP support services. The contract required PSPs to achieve the output specifications in order to trigger payments. Contrary to other projects which endeavour to hold an inception meeting to clarify issues with the stakeholders, the majority of PSPs reported that they did not have a formal orientation to align stakeholders' understanding of contract objectives and demystify any misinterpretations. Literature shows that most of the public extension performance indicators are based on outputs which are difficult to verify or measure (Aker, 2011:635). The PSPs highlighted some of the indicators, which included number of farmers trained, number of households visited, number of trainings held, and number of demonstration sites developed. One PSP said: "...indicators were realistic; however, the programme was not able to measure whether they were sustainable or not."

While the KPIs stipulated in the project were output specific and measurable, they did not translate into the desired results of the programme and the principal. This statement illuminates the challenges posed by the output indicators in measuring results. Anderson and Feder (2007:2358) point out the complexity in drawing the relationship between extension support and the outcome at farm level. They add that the complexities diminish political support, budget allocation, incentives and accountability. At the secretariat, some participants stated that the indicators were very clear to the farmers, although they did not provide for measuring the change created by the services delivered by the PSPs. It is not surprising that politicians and other stakeholders kept reminiscing on the results from the PSP activities conducted.

5.6 Summary

This chapter aimed at establishing the effects of implementation management in a PPP. It was noted that limited studies have written about implementation management in PPPs and yet it is noted as critical for successful projects. The conclusion is presented in line with the two themes identified in this chapter.

The study established that the different actors in the PPP did not comprehend the type of contract they were implementing. This affected the nature of relationship between the principal and agent especially for those who considered the contract a traditional procurement diverting from collaboration to a more master-slave relationship. The partners failed to align the interests of the partners in mutually agreed commitments. This affected the principle of

interdependence in a partnership so that instead of partners committing to their duties and supporting the PPP objectives, they ended up engaging in moral hazards, which affected the programme. There were gaps in the expectations and responsibilities, and generally the partner obligations seemed to be unknown to many partners.

The study also discovered poor coordination of the service contract, which led to exploitation of the contract management process. The partners failed to conduct regular monitoring and control of any deviant behaviour.

The study recommends that the public sector should begin by identifying the most appropriate type of PPP contract to implement and its characteristics. An orientation session should be conducted with the public and private sector actors to align their understanding of PPP contract, its objectives and partner obligations. The public sector should also identify a strong contract management unit (entity) to monitor and enforce the contract. The CMU should be well facilitated and motivated to effectively manage the service agreements.

The study discovered gaps in the performance management framework. The programme had challenges in linking PSP support services to the respective targets and PPP objectives. The output specifications did not help in illuminating the performance of the PSPs, thus rendering them non-performers. Furthermore, there were no standard operating procedures for monitoring PSPs and verifying performance, which led to compromise and manipulation. The performance management process did not provide the requisite visibility of PSP activities and this created an impression that they were being paid for no work done. The study recommends that PPP extension projects establish a results oriented performance mechanism that provides timely reporting and visibility of agent support services in line with the PPP objectives and results. This will enable partners to keep track of field operations and also manage any deviant or inappropriate behaviour in real time.

CHAPTER SIX

ACCOUNTABILITY AND IMPLEMENTATION OF PPP PROJECTS IN AGRICULTURAL EXTENSION UNDER THE NAADS PROGRAMME

6.1 Introduction

Governments in developed and developing countries continue to deploy Public Private Partnerships (PPP) as an integral part of infrastructural development and delivery of public services (Forrer *et al.*, 2010:475; Reeves, 2013:78; Roehrich *et al.*, 2014:110; Hodge *et al.*, 2017:273-275). PPPs are now perceived as a conduit for pursuing both social and economic development with the expectation that they will deliver higher quality goods and services at a minimal cost (Wu *et al.*, 2016:1471; Hodge *et al.*, 2017:274). In addition, PPPs are considered to have potential for accountability because they offer more clarity on responsibilities and emphasis on results by the private sector (Fombad, 2013:11). PPPs are becoming a preferred option because they involve decision making, performance and a lot of data, documentation, and different stages of operation which all require accountability yet the public sector does not have sufficient knowledge and expertise in managing such increasingly complex governance issues (Börzel & Risse, 2005:14; Forrer *et al.*, 2010:477; Shaoul *et al.*, 2012:214; Fabregas *et al.*, 2017). Governance is conceptualised as the process of directing and delivering social order within a given framework (Börzel & Risse, 2005:2). Governance in this context involves public and private sectors participating in implementing public policy aimed at improving delivery of goods and services (Börzel & Risse, 2005:2). PPPs are, therefore, viewed as a panacea to some of the governance problems in the public sector. For instance, PPPs solve public sector deficiencies and promote participation and accountability (Börzel & Risse, 2005:1; Forrer *et al.*, 2010:475). Willems (2014:342) reports that PPPs are a vehicle that would improve accountability for performance.

Public Private Partnerships involve the public sector delegating responsibility for delivering goods and services to the private sector. The private sector is, therefore, held accountable by the public sector for the goods and services delivered (Börzel & Risse, 2005:7). Reeves (2013:80) adds that executing PPP projects entails exercising public powers and use of public resources to provide public services. This implies that there should be not only accountability for the use of powers and resources but stakeholders (either public or private actors) should be accountable to those on whose behalf they act. The public sector is responsible for making

the private sector accountable for performance in accordance with the agreed contract and operating guidelines. On the other hand, the public sector in a democratic dispensation is accountable to parliament and the public for service delivery and management of the PPP (Reeves, 2013:80).

Accountability is thus considered the obligation to account for activities and justify conduct to another person or body (Bovens, 2006:9). This rhymes with traditional accountability which describes a relationship where one party is required by another to explain and take responsibility for their actions including justification for actions made (Mulgan, 2000:555; Shaoul *et al.*, 2012:215). In a PPP, accountability emphasises the relationship and obligations accepted by an agent, the public sector and the public or target beneficiaries (Bovens, 2006:9; Forrer *et al.*, 2010:477). However, Mulgan (2000:555); Shaoul *et al.* (2012:215) argue that there is a paradigm shift in the definition of accountability from just accounting for one's actions to include giving accountability, holding one to account and applying sanctions and being responsive to citizens. Scholars such as Bovens (2006:9); Bovens (2010:946) agree that accountability has taken broader definitions with no consensus on specific standards or accountable behaviour. Accountability can, therefore, be defined as a sense of individual responsibility and concern to meet the needs and expectations of the public (Mulgan, 2000:556). With regards to agricultural extension, accountability is defined 'as the provision of a credible demonstration of achievements towards the stated and implied objectives of the extension organization as well as its subsequent legislations (Omotesho *et al.*, 2015:94).

Shaoul *et al.* (2012:215) argue that giving accountability has three facets: compliance, transparency and responsiveness. Transparency is viewed as a vital component in promoting accountability. For instance, it is argued that clarifying commitments, reports and presentations tends to facilitate better management and increases accountability and openness of the programme (Reeves, 2013:80). Shaoul *et al.* (2012:215) explain the facets above by arguing that account giving includes an obligation for the account giver (who in this case may be the public sector or private sector) to report on the performance and outcomes of the PPP project. The account receiver (public sector or beneficiaries or forum) is prompted by the report to question the account giver and the account receiver is able to make judgement and impose formal or informal sanctions.

Accountability has, therefore, transitioned from book-keeping and financial administration to fairness and equitable governance linked to public accountability. Public accountability is perceived by (Mulgan, 2002) as the capacity of citizens to hold public officers to account, to demand explanations and solutions, and to impose sanctions and new directions. This implies that public accountability has shifted from holding the subjects accountable to having authorities accountable to their citizens (Bovens, 2006:5). Accountability thus may take the forms of trustworthiness, justice, holding people accountable, and responsibility (Bovens, 2006:8).

Scholars such as Willems (2014:340) argue that just like it is a challenge to pledge accountability in New Public Management (NPM), the same challenge is experienced in PPPs. Studies such as (Reeves, 2013:78) show that accountability is still a major challenge in PPPs with evidence of accountability deficits affecting trustworthiness and transparency of different PPP interventions. Accountability deficits have been registered in Europe (Bovens, 2006:5) as well as in Africa and other developing economies in the form of inappropriate behaviour, 'bad' governance, poor response to public needs and expectations, irresponsibility, inefficiency and ineffectiveness, and engagement in deviant behaviour like corruption (Bovens, 2010:957). Wu *et al.* (2016:1472) add that public sector obscurities in accountability are rampant and have inhibited PPP performance.

Willems (2014:340) asserts that accountability is usually consumed within the governance frameworks and easily becomes invisible or unenforceable. A typical example is the shift in accountability arrangements in a PPP where decision making and problem delivery previously managed through hierarchical systems is now shared between government and the private sector (Forrer *et al.*, 2010:477). The accounting officer in the public sector may in this case lose direct control, oversight and influence of accountability for PPP projects (Reeves, 2013:78; Willems, 2014:342). While public sector projects are managed through hierarchy, bureaucracy and detailed regulation, the terms in a PPP present a new form of governance which requires careful scrutiny and understanding for managing multi-dimensional accountability forums (Forrer *et al.*, 2010:477; Shaoul *et al.*, 2012:214). Such an arrangement depends on interdependence, negotiation and trust among a number of public and private actors (Shaoul *et al.*, 2012:214). Questions are emerging on how public accountability will be effectively conducted when the public sector is working towards maximising capital investments and the private sector is aiming at maximising profits and yet

public expenditure is coming from outside direct state control (Forrer *et al.*, 2010:477; Shaoul *et al.*, 2012:214). This has created a paradox on who is supposed to give accountability and or hold another accountable for decisions and actions made.

It is argued that PPPs fall short of accountability arrangements emanating from the principal-agent relationship. The prominence of poor accountability in PPP projects arises where both the principal and agent have divergent interests and goals which cause information asymmetry and moral hazard thus affecting accountability (Willems, 2014:340). Some scholars report that in spite of development of contracts, clarity of responsibilities, formal auditing mechanisms and periodic reviews, concerns on the quality of accountability in PPPs is still eminent (Reeves, 2013:79). Other PPPs are reported to have financial and commercial confidentiality, concealment of the contractual process, all of which hinder accountability (Reeves, 2013:79). Some scholars argue that there is lack of objectivity, clarity and information on the methodology for preparing the PPP outcomes, which poses a challenge in accounting for PPP results.

PPPs in Australia have recorded underbidding to win a tender, optimistic forecast to tariff, risk allocation, the higher cost of private capital versus government finance, the lack of disclosure and transparency, and citizen distrust of infrastructure development through PPPs as fundamental accountability issues. Similar accountability challenges are experienced in South Africa and include lack of public consultation and transparency, corruption, lack of competition, accounting issues, ineffective contract management, failure to monitor performance, and failure to ensure value for money and equitable risk allocation (Fombad, 2013:15). It is also reported that partners in a PPP have different forums where they are supposed to provide accountability. Bovens (2006:16) calls it the problem of many eyes and many hands. Both the public and private sector often have a dilemma because their different fora demand different kinds of information and apply different criteria to what is appropriate accountability. It is, therefore, imperative that partners in the PPP become aware of the different levels of accountability (Forrer *et al.*, 2010:477). Hodge *et al.* (2017:278), however, reports that despite the accountability deficits there is generally improvement in governance of PPP projects at least in some developed countries.

PPPs have attracted a wide range of practitioner and academic studies (Roehrich *et al.*, 2014:111). However, there is limited empirical evidence on accountability deficits in

implementing PPP projects in agricultural extension. Literature reveals that accountability in extension projects has experienced numerous challenges (Anderson & Feder, 2007:2359). Most of the existing literature is disjointed with no clear accountability arrangements to support PPP in extension.

This chapter was triggered by summative analysis of findings, which prominently revealed that accountability was a concern across all the categories of respondents. The study identified the major accountability deficits and recommend mechanisms that facilitate sufficient accountability arrangements for PPPs in agricultural extension. It borrowed different accountability dimensions from various scholars as a precursor to developing PPP accountability mechanisms for the implementation phase for PPP projects in agricultural extension. The study conceptualised accountability arrears in form of relationships (hierarchical and horizontal), accountability arrears in meeting the needs and expectations of the public, and arrears in information flow.

The chapter is broken down into seven sections presented as follows; section two presents accountability as a mechanism for control specifically explaining the transition from hierarchical to horizontal relations in PPPs. Section three discusses accountability as a mechanism of meeting the needs and expectations of the public and section four covers accountability through information flow. Section five presents the methods used to collect data while section six presents the empirical findings for this chapter. The last chapter covers the conclusion specifically highlighting the significance and recommendations for this study.

6.2 Accountability through a control lens: from hierarchical to horizontal relationships

Traditionally, public accountability underscores control underpinned in vertical relationships (Forrer *et al.*, 2010:477; Wu *et al.*, 2016:1472). Traditional public accountability is achieved through hierarchical relationships, standardised procedures, policy directives and bureaucratic control (Stafford & Stapleton, 2017:380). The policy, legal and regulatory frameworks, and implementation manuals are used as devices for accountability which ensure that partners act in accordance to the agreed standards and comply to pre-defined rules and regulations (Mulgan, 2000:563). Therefore, in the public sector, accountability is generally tenable through a hierarchical system where citizens can access the information they need to hold elected politicians accountable for their actions (Grossi & Thomasson, 2015:605). Fombad (2013:13) presents the definition of public accountability to denote an obligation of public

officials to report on how public resources have been expended and to provide feedback on any shortfalls for meeting the intended objectives. Under this arrangement, those giving accountability tend to make reference to the existing guidelines to justify their actions (Shaoul *et al.*, 2012:216). For instance, public service officers are not elected by the public but have the obligation to provide accountability to the public. In order to enforce compliance, the elected representatives such as members of parliament put pressure on the public officers to deliver the needs and expectations of the public. The means through which traditional public accountability may be conducted are formal or informal. Informal accountability is done by public employees through media, communal meetings, sharing with interest groups and other elected representatives. Kidd *et al.* (2000:95) illustrates public extension systems as hierarchically structured aiming at maintaining a broad impact and equity in treatment of clients, while also offering a regulatory system (Kidd *et al.*, 2000:95). The formal accountability is conducted through giving accountability to other government agencies and departments, hierarchical accountability and accountability to pre-determined objective standards. The process of giving public accountability requires the accounting officer to conform to different legitimate but often competing accountability expectations (Forrer *et al.*, 2010:488).

From a PPP context, vertical or hierarchy accountability is regarded as a principle mechanism for checks and balances which seek to control the behaviour of the public and private sector actors (Mulgan, 2000:556). In this case, the accountability mechanism ensures that agents with delegated authority act in accordance with the principle. The agents are required to account to the principal for the performance of the delegated tasks and where necessary be penalised as a means of bringing them to order (Fombad, 2013:13). On the other hand, the public sector also needs to be answerable and impose sanctions for any deviations. In addition, the public sector is supposed to be answerable to the public for which the services are being provided. Accountability as a control mechanism comes with challenges, especially complying with the public preferences. (Mulgan, 2000:564) notes that public officials usually take advantage of loopholes in the established standards and implement policies and decisions within the legal limits imposed upon them. In so doing, they appear to comply and their actions are unquestioning and undisputed. Stafford and Stapleton (2017:380) report that vertical accountability has been criticised for being out-dated and risk averse because of its focus on processes and faults rather than results. Accountability in this case is done retrospectively paying attention to the wrongs in the activities accomplished.

Scholars such as (Wu *et al.*, 2016:1472) and (Stafford & Stapleton, 2017:380) agree that PPPs are compromising the traditional public accountability system transitioning from procedural accountability which highlights compliance to operating procedures and guidelines to performance accountability (Shaoul *et al.*, 2012:216). This has resulted in an alteration of relations, distribution of responsibilities and decision making between the public and private sector. New complexities have emerged which require different relationships and levels of accountabilities (Fombad, 2013:14-15; Grossi & Thomasson, 2015:605). PPPs are reported to create two more relationships which require attention. These include the relationship between the public sector and the elected politicians, and one between the private sector and the public (Grossi & Thomasson, 2015:609). Omotesho *et al.* (2015:94) stresses the importance of ensuring that the accountability relationships are strengthened and all the three relationships complement each other. Horizontal relationships are predominant with a twist from political forms of accountability to market and managerial based accountabilities focusing on performance and outcomes (Forrer *et al.*, 2010:478; Stafford & Stapleton, 2017:380). This New Public Management (NPM) approach presents a shift from the public sector accountability framework by affecting the normal ministerial accountability systems associated with government departments thus weakening the hierarchical accountability structures and focusing on making the agent the key information source but ensure accountability is done through multiple accountability channels that address the different stakeholder needs and expectations (Shaoul *et al.*, 2012:216).

The market and managerial based accountabilities emphasise the ability to meet stakeholder demands and motivation rather than restraining behaviour (Shaoul *et al.*, 2012:216; Grossi & Thomasson, 2015:608). Managerial accountability offers agents with additional autonomy but they are more directly accountable for their ability to produce measurable results. Unlike the traditional public accountability system which monitors processes and procedures, managerial accountability monitors and reports on output and results and impose an obligation to those with delegated authority to become answerable for carrying out tasks in line with agreed key performance indicators (Christensen & Lægheid, 2015:209). The approach is considered broader and realistic because it ponders on how multiple expectations generated within and outside the partnership will be addressed. The approach considers that partners have divergent objectives which may require non-hierarchical means of addressing and reporting on them (Fombad, 2013:14). Stafford and Stapleton (2017:381) adds that the

public sector should review its accountability mechanisms in order to meet the needs of various legitimate stakeholders but with different accountability expectations. The rationale is to ensure mutual influence, mutual accountability, transparency, and equal participation in decision making (Fombad, 2013:14). This enhances government's ability to deliver public goods and services more effectively and efficiently while ensuring value for money (Fombad, 2013:14).

Christensen and Lægreid (2015:210), however, note that managerial accountability does not work best in public service with a strong political background. Forrer *et al.* (2010:478) criticises the horizontal relationships for not managing very effectively multi-dimensional responsibilities through service contracts (Forrer *et al.*, 2010:478). Jones and Stewart (2009) argue that shared accountability in PPPs is inclined to become, in practice, joint irresponsibility, where no one is accountable due to the confusion of public and private sector responsibilities (Fombad, 2013:14).

6.3 Accountability as a pursuit of public interests and expectations

Accountability is viewed as a strategy for managing different expectations. This explains why the public sector is obliged to account to the public. Willems (2014:343) notes that the government is held accountable for rules and procedures to prevent unfairness or abuse of power which is constitutional accountability. In addition, the general public desires to hold government accountable and have a say and ownership of decisions made by their representatives (democratic accountability). The public also wants to hold governments accountable for their results in delivery of public services.

The public sector is usually charged with the responsibility of making decisions on the value for money for the PPP programme interventions and partnerships chosen. And it is in the interest of the different stakeholders and public at large to receive an account on the VfM resulting from a given PPP. Value for money (VfM) is viewed as the idea that a PPP project can produce quality goods and services at a cost lower than that provided by the public sector or traditional procurement methods (Reeves, 2013:82). The use of the VfM test helps or makes the public sector accountable for its decisions to adopt a PPP. It should, however, be noted that there are pitfalls in measuring VfM with arguments related to vagueness and possibility of errors in estimating costs and revenue flows and associated probabilities. This lack of clarity may influence some individuals to make decisions on VfM in favour of

preferred outcomes (Reeves, 2013:83). The VfM decisions can, therefore, be assumed a function of accountability. It is also assumed VfM decisions are bound to improve if there is pressure on the public sector to give an account for it. Some scholars argue that VfM decisions must be followed by competition for contracts. A well-managed tendering process is likely bound to facilitate transparency, support and ownership of PPP projects. In addition the process enhances accountability because it creates competitive tensions that encourage private sector to innovate and deliver VfM. Competition for contracts as well as competition among service providers to satisfy farmers result in increased efficiency in service delivery and extension becomes more effective (Omotesho *et al.*, 2015:95). Obstacles to competitions such as opportunistic behaviour, collusion should be recognised and avoided in order to win the needs and expectations of the stakeholders and public (Reeves, 2013:83).

The public sector is obliged to deliver goods and services to its citizenry. This means that the public sector needs to understand and manage the needs and expectations of its public. The process of understanding the expectations requires stakeholder consultations although Fombad (2013:15) reports that PPPs arrangements tend to distance them from the decision making process. Omotesho *et al.* (2015:95), for instance, illustrates that farmers should have a choice of extension service providers, giving input on all negotiations such as extension content, quality, and methods. In addition, farmers should be in position to give an account on services offered by service providers with the possibility of seeking redress on unsatisfactory services rendered. Accountability, therefore, requires the public sector to pursue and deliver the interests of the public regardless of whether they have been pressurised to do so or not since it (accountability) is the management of stakeholder expectations by the public servants (Mulgan, 2000:556). This implies that even when the public sector delegates tasks to an agent, they still retain the responsibility to account to the public. The agents should appreciate that their reports will be subject to external scrutiny and will be called upon to account for their actions. External accountability assesses the actions taken by agents and determines whether the decisions made are justifiable or not. The process assesses the rationality in making choices and individual responsibility in executing the tasks that have been delegated. This process aims at controlling the behaviour and decisions of the agent and ensures that they comply with the operational guidelines and agreed outcomes of a PPP project. The gist of accountability lies not in the behaviour of public agents, but the way in which accountability arrangements operate. The emphasis is not whether the agents have acted in an accountable way, but whether they are or can be held accountable by

accountability forums including the public (Bovens, 2010:948). It should, however, be noted that the decisions made by the agents largely depend on the internal factors such as personal and professional values like transparency (Mulgan, 2000:562).

The public expects that PPP systems and processes are transparent. Transparency means that the public has access to timely and reliable information on decisions and performance in the public sector (Fombad, 2013:15). The emergence of the private sector warrants the need for transparency before the public and external stakeholders to assess internal operations and performance of the PPP. The transparency puzzle is complete when information is not only available, accessible and visible but when it is clearly understood by the intended consumers or beneficiaries. Transparency may be considered in two fold that is external and internal transparency. Oftentimes, projects focus on creating external transparency without cleaning up the internal transparency. External transparency is the world view about the project while internal transparency involves public sector clarity of expectations to the private sector and the private provider reassures its commitment to performance (Reynaers & Grimmelikhuijsen, 2015:609).

The public sector needs to assure the public of disclosure of PPP contracts, operational frameworks and decisions made. (Reynaers & Grimmelikhuijsen, 2015:609) observes that PPPs have been criticised for lack of transparency. They provide limited information which many times is misleading, inaccurate, or inadequate. This has resulted into insufficient information which does not satisfy the needs and expectations of stakeholders like politicians and civil servants (Reynaers & Grimmelikhuijsen, 2015:609). Fombad (2013:15), however, argues that PPPs often times do not reveal some details on procurement, funding and operations which compromise the perceptions of the public sector integrity. The author further reports that the PPP unit in South Africa has provided superficial and inconsistent with reports on PPP information through their PPP quarterly release. Stafford and Stapleton (2017:385) adds that it is common for PPP not to disclose penalties for poor performance. There is a tendency to avoid how much was deducted as penalties in the financial statements.

Corruption has been earmarked as one of the factors affecting accountability and thus failure to meet the expectations of the stakeholders. Corruption conceptualised as an abuse of entrusted power for private gain at the expense of the public interest usually results in resource misallocation, a reduction in investment and competition, unresponsive policies, and

poor administration. Corruption is considered one of the 20 key challenges experienced by PPPs, according to the PricewaterhouseCoopers report on the Port Klang Free Trade Zone PPP in Malaysia (Fombad, 2013:16). It is very common for connected friends and relatives of politicians to be awarded lucrative supply contracts, despite submitting inferior bids and offering high prices and poor expertise (Fombad, 2013:16).

In order to address the concerns, needs and expectations of the stakeholders, Bovens (2006:23) emphasises the importance of reviewing the quality of the accountability process in terms of establishing if it complies with the minimum requirements of an accountability procedure. The review process should determine whether there is adequate and proper provision of information by the actors, whether there is receipt of timely and sufficient information from the actor in order to enable a well-founded judgement to be made. Omotesho *et al.* (2015:95) advocates for client power as a measure of meeting the needs and expectations of the beneficiaries. Client power describes how farmers can mount pressure on service providers and elected leaders to ensure that efficient services are delivered to them. Another important factor to review is whether the forum allows the actor sufficient opportunity to explain, debate and justify their conduct or they act immediately or upon prejudice. The review should also check for clear standards and performance indicators upon which success will be judged (Bovens, 2006:23).

6.4 Accountability as a flow of information

Information in a hierarchical system flows from the top to the bottom as well as bottom up. Accountability is thus a process that involves an exchange of information between individuals or organizations (Grossi & Thomasson, 2015:606). The success of information exchange in a PPP depends on accessibility and clarity of information on project performance. The availability on one part also depends on the willingness of the stakeholders to report back and to be accountable to government and citizens (Grossi & Thomasson, 2015:608). Often times, farmers need feedback from the public and private sector on data collected from them; for example, progress on extension activities and the outcomes therein. Farmers also need feedback from questions they raise on agronomy, market linkages and input use and application. Access to information is considered an important ingredient for accountability. However, the measure of appropriate information that satisfies accountability is subjective. Accountability is inspired by free flow of appropriate information to targeted forums rather than generalise or share information at random (Bovens, 2006:12). This is

important in a principal-agent relationship because PPPs are prone to opportunistic behaviour by both private and public sector actors caused by information asymmetry which most likely affects the relationship or partnership (Mulgan, 2000:569). The flow of information should be followed by the capability of forums to discuss and cross-examine those giving account (Mulgan, 2000:567). This implies that the exchange of information is not enough if not followed by debate, questions and answers by partners and eventually judgement by the forum. Judgement also means the imposition of formal or informal sanctions on the actor in case of unsatisfactory performance or for that matter of rewards in case of adequate performance (Bovens, 2006:9). The public sector relies upon the quality, quantity and timeliness of performance measurement data collected and presented by the service provider.

Accountability requires partners to answer, explain and justify, while those holding them to account engage in questioning, assessing and criticizing. The process of sharing information should involve open discussion and debate about matters of public interest with interpretation or explanation. Farmers for instance need to debate on new technologies, advice on change in weather patterns, market opportunities. Accountability is, therefore, provided amidst a set of expectations and ideally a common ground for measuring progress and outcomes; dialogue among actors is at the heart of an accountability event (Mulgan, 2000:569).

Reeves (2013:85) raises a concern that involvement of the private sector in a PPP reduces the flow of information available to assess performance and satisfy accountability. This arises where performance data is held exclusively by the private sector or where the private sector makes claims in relation to commercial confidentiality that seek to limit or exclude the availability of information from the wider public or the oversight of parliament (Reeves, 2013:85). In some instances, the private sector may decide to selectively share information with the partners on the pretext of protecting their business secrets. This may affect the flow of information especially when the information requested for is of public interest.

Under the principal-agent relationship, the obligation to provide accountability is defined by the contract but often times it is periodic to specific forums such as development partners, government agencies and the general public. Failure to account may require officers to appear before administrative courts or parliamentary committees. During the process of giving accountability, it is recommended that all information on performance tasks, outcomes and procedures is provided (Bovens, 2006:10). Bovens (2006:10) further advises that in case of

deviations or shortfalls from the original plan, explanations, justifications and remedies should be given. Depending on the nature of PPP and accountability requirements, explanations should vary from financial accountability to administrative fairness or political accountability. The ability of the public to interrogate the actor and to question the adequacy of information of the legitimacy of the conduct is also important and links to the notion of answerability (Bovens, 2006:10). Answerability means reporting and account giving after an answerable event has occurred (Dubnick & Justice, 2006:248). Passing judgement would mean approving an annual work plan, denounce a policy, or publicly condemn behaviour of a public official or an agent. In passing a negative judgement, the forum frequently imposes sanctions of some kind on the actor (Bovens, 2006:10).

Finally, accountability mechanisms can also serve as a tool to induce reflection and learning, as feedback mechanisms that can make and keep governments, agencies and individual officials effective in delivering on their promises. Reflection and learning provides an opportunity to recollect on the objectives, effectiveness and procedures of an intervention. The process also allows external feedback which facilitates performance improvement. Reflection and learning from performance helps partners to review and modify policies in consultation with the target beneficiaries. A successful critical reflection session involves transparency, openness and information sharing all of which are attributes of accountability. Scholars advise the need to establish how information flows across different partners, how private sector reporting might be amended to facilitate the achievement of public accountability, and what level of disaggregated information might be needed (Stafford & Stapleton, 2017:381).

6.5 Research Methods

The study adopted an exploratory design and a qualitative case study method. This approach is appropriate because it helps to understand the complexity of a phenomenon within its context, since it allows several aspects to be considered in the analysis. The study aimed at understanding how accountability arrears affect PPP projects in agricultural extension. Data was collected using primary and secondary sources. An exploratory review of literature from academic journals and implementation manuals was undertaken to identify debates on accountability and PPPs in general. This was augmented by semi-structured interviews conducted with farmers, private service providers from 3 districts in Uganda. Interviews also targeted NAADS secretariat staff who shared information on accountability and the NAADS

PPP extension programme. The data collected was analysed by categorisation, coding from which themes were developed.

6.6 Discussion of findings

The study sought to identify the accountability arrears embedded in the principal-agent relationship under the NAADS agricultural extension programme. The following findings were discovered during the study.

6.6.1 The nature of accountability mechanisms and relationships

The study discovered that accountability was designed as part of programme implementation. It was revealed during interviews at the secretariat that accountability was planned for at each level of programme implementation. One of the technical people at the secretariat said that accountability “was embedded in the project design and was mandatory from the national level to the grassroots.”

It was observed that while all the different categories of targeted participants confirmed that accountability was an important component for the programme, none of the respondents could articulate the nature or dimension of accountability used in the programme. A critical review of the accountability mechanism shows that the programme pre-dominantly used the traditional public accountability approach.

A review of the NAADS implementation manual confirms that stakeholders designed a hierarchical accountability system for the programme which focused on vertical relationships and compliance (Shaoul *et al.*, 2012:215). The manual reveals that at the sub-county level, the Sub-County Chief had authority for the management of NAADS at the Sub-County level and was accountable for NAADS performance. In addition, the Sub-County Council was obliged to provide public accountability for NAADS performance in the Sub-County. The Sub-County NAADS Coordinator was responsible for timely submission of financial reports to the District NAADS Coordinator (NAADS, 2001:47-50). At the district, the Chief Administrative officer (CAO) was the accounting officer for NAADS performance in a district. The districts were responsible for the flow of funds to and accountability for the funds by Sub-Counties. The CAO through the NAADS Coordinator was charged with timely submission of financial reports to the NAADS Secretariat (NAADS, 2001:40). At the secretariat, the Board was answerable to the Minister responsible for agriculture and the

Ministry was accountable to the Parliament on matters related to NAADS. In summary, the district councils were responsible for coordination and implementation of the NAADS programme and publicly accountable for NAADS performance in their respective districts. The councils were also accountable to the NAADS Board and Ministries of Agriculture, Local Government and Finance).

A critical reflection on this accountability system shows that the approach seemed to be linear and inclined to report from bottom to top contrary to literature which suggests that the public sector should be answerable to the public for which its providing the public goods and services (Fombad, 2013:13). It is only at the sub-county that the manual provides for facilitation of information feedback and feed forward mechanisms between the Farmer Forum, the Sub-County Administration, NAADS and Farmers. However, interviews with farmers revealed that such meetings were hardly held and the very few that took place were usually dominated by politicians. In addition, the majority of farmers reported that the sessions were not productive because they were characterised by accusations and counter accusations. One farmer said: “Those people at the district and sub-county were not open and could not tell us the truth about the programme.” Many farmers felt that there was no transparency contrary to Shaoul *et al.* (2012:215) who emphasises transparency as one of the facets for accountability.

The outlook of the guidelines suggests that the accountability mechanism focused on ensuring that public servants follow standardised procedures and maintain hierarchical relationships in order to comply to the pre-defined guidelines (Forrer *et al.*, 2010:477). Despite the engagement of the private sector in the NAADS extension programme, the guidelines were silent on how the private sector will contribute to accountability except where the manual stipulates that “service providers will be engaged on a contractual basis to foster accountability and quality service delivery” (NAADS, 2001:19). However, a detail on how they would foster accountability was not provided for which means there was no clear framework to enforce accountability of results among the private service providers. The public sector maintained its public accountability system ignoring recommendations for acknowledging the new relationships that come with PPPs; that is, the relationship between the public sector and the elected politicians and one between the private sector and the general public (Grossi & Thomasson, 2015:609). The public sector did not review the

relationships to ensure that they are all involved in the accountability system and complement each other as advised by Omotesho *et al.* (2015:94).

It was also discovered that the programme emphasised financial accountability contrary to Mulgan (2002) who reported a transition of accountability from focusing on booking keeping and expenditure to include accountability for results, actions and decisions made. The private service providers stated that their reporting had to prominently emphasise expenditure reporting with less attention placed on results. One sub-county official revealed that the reason why the programme emphasised financial accountability was because it triggered the release of funds for the subsequent quarter. This may have created laxities in implementing extension activities for results thereby compromising the quality of accountability.

In the same spirit of accountability, the guidelines compelled the district and sub-county councils to sign a participation agreement stipulating the roles and responsibilities of all parties involved in the programme. However, apart from the district coordinators who were aware of the agreements, the rest of the district and sub-county participants were not aware and had not seen a copy of the agreement (attached in Annexure 7). While these agreements aimed at promoting ownership and commitment of responsibilities, the implementers failed to commit the partners. One PSP said: “I am not aware of any participation agreements.”

The majority of PSPs and farmers were hearing it for the first time. In addition, the agreement seemed to only bind the district and sub-county district councils thereby excluding other players like the farmers, private sector and NGOs who were critical in project implementation and performing accountability. This act contradicts literature which states that PPPs provide for more clarity of responsibilities and emphasis on results (Fombad, 2013:11).

One significant crack in the accountability arrangement was born in the relationship between the Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and the NAADS programme. This study discovered that the Ministry and the Programme did not have a cordial relationship and yet the NAADS Board had to account to the Ministry and the Ministry accounts to the Parliament. It is not surprising that many stakeholders believe that the Ministry presented propaganda which may have led to the termination of the principal-agent relationship as one technical officer at the secretariat said: “Extension was killed by the Ministry.”

6.6.2 Meeting public interests and expectations

The study sought to find out if the programme had assessed the VfM for the NAADS PPP extension programme. Respondents at the secretariat revealed that the programme had been designed to be a cost-sharing arrangement with the farmers but this component failed. As a result, the extension budget became too expensive and yet as earlier noted it did not present tangible benefits. This contradicted scholars such as Reeves (2013:82) who recommend that PPPs should produce quality results at a cost lower than the traditional procurement methods. This implies that the project failed to account for the Value for Money for the PPP programme which perhaps led to its termination.

Literature suggested that VfM should be followed by competition for contracts. This study, however, revealed that the process of contracting PSPs was compromised by corruption and nepotism. Contracts were awarded to friends of politicians and NAADS officials who complicated the accountability process because it became difficult for the implementer to force the service providers to account for services offered and decisions made. No wonder that farmers complained of poor services and incompetence of some service providers. In addition, farmers did not have the capacity to reject services offered by the incompetent services providers and could not seek redress for poor services rendered. In fact, farmers were disappointed that many PSPs who were non-performers were awarded more contracts. The programme did not adequately design a forum that facilitates farmers to question, debate and pass judgement to the report or accountability provided by the officers. Responses from the NAADS secretariat, districts and sub-county participants revealed that they used to participate in periodic evaluation workshops with different stakeholders. The evaluation or assessment workshops presented performance reviews of the program. Majority of the farmers and PSPs however reported that the periodic evaluation workshops conducted by the Secretariat did not give them an opportunity to express their views. Most of the sessions were characterised by presentations dominated by the NAADS officials and other partners. One PSP argued that “some of those reports (presented in workshops) were merged and not very clear to us.”

Farmers also said that they used to receive contradicting reports about the programme most of which were politically motivated. Just like many PPPs, the project was characterised by limited information which many times was misleading, inaccurate, or inadequate. This has resulted into insufficient information which did not not satisfy the needs and expectations of

stakeholders (Reynaers & Grimmelikhuijsen, 2015:609). The service providers confirmed this when they mentioned that politicians provided contradictory reports to the farmers which created a negative attitude towards the programme.

A review of the accountability mechanism as suggested Bovens (2006:23) shows that there were gaps in the accountability mechanism which may have affected the quality of accountability and performance of the PPP programme. It was noted that the mechanism did not include the private sector into the accountability framework. According to participants at the secretariat, the information provided was not timely and it was insufficient. One participant said that sometimes “the information in the reports was not tallying with the reality on the ground...” Client power as suggested by Omotesho *et al.* (2015:95) was also very poor and as one service provider said: “The politicians and NAADS officials had mastered how to manipulate the farmers.”

6.6.3 Flow of information

Literature suggests that accountability involves not only the exchange of information but also the willingness to report back and account for activities or actions and decisions made (Grossi & Thomasson, 2015:606). Contrary to Grossi and Thomasson (2015), farmers expressed their dissatisfaction with regard to exchanging information on matters of accountability with the NAADS officials and service providers. Farmers reported that giving an account to them was not an issue of concern to the NAADS officials and PSPs. One farmer said: “The NAADS programme collected a lot of information from us but we never got feedback from them.”

The PSPs, on the other hand, also voiced their concerns that they did not have an opportunity to exchange information or reflect on their performance with the farmers and sub-county NAADS officials. Many reported that they would receive informal communication threatening to terminate their contracts based on rumours from the field that they were not performing to the expectation.

6.7 Conclusion

The study discovered that accountability in the NAADS PPP programme focused on traditional public accountability emphasising compliance and adherence to procedures. This accountability arrangement failed to satisfy the needs and expectations of the different stakeholders that emerge out of a PPP. In addition, the poor relationship between the NAADS

secretariat and MAAIF may have compromised the quality of accountability and perhaps contributed to the decision to terminate the principal-agent relationship. This study recommends that any PPP should develop an accountability mechanism which clearly defines the roles and responsibilities of the actors. A stakeholder analysis should be conducted to identify the entire stakeholders together with their needs and expectations. The mechanism should also clarify who accounts for what and who holds another accountable. The mechanism should ensure that the relationships among the actors in the PPP do not jeopardise the exchange of information and the quality of accountability shared in the different forums.

The study found out that the accountability mechanism failed to integrate managerial accountability which relies on performance and results. In addition, the accountability arrangement did not provide a forum for partners to hold open discussions, debate, discuss, justify and cross-examine reports especially at the sub-county level. PPPs should establish an accountability mechanism which, in addition to adhering to the procedure and standards, should account for PPP performance and outcomes. The study also recommends identification and communication of the different forums at different levels of PPP programme implementation. Emphasis should be placed on open discussions as well as judgement on performance. The capacity of farmers should be built to debate and demand for explanations during the forums. It is believed that such forums will hold public officials and agents accountable and will implement the PPPs well knowing that they will be mentioned, shamed and put to task to explain in such forums. Such forums should act as formalised accountability mechanisms with a mandate to critique and complement government decisions and private sector actions but with an obligation to update the public.

This study suggests that the PPP unit should develop a working document which clearly stipulates the standard operating procedures for accountability in a PPP, emphasising the role each partner plays in giving accountability or holding another party accountable. The document should highlight standards for measuring performance as well as mechanisms of sharing accountability information and imposing sanctions for unsatisfactory performance.

The study proposes simple iterative accountability facets for PPPs in agricultural extension. These include, first of all, conducting a stakeholder analysis to identify the key stakeholders, their information needs and expectations. Second, identifying all possible accountability forums and link each stakeholder to an accountability forum together with their needs and

expectations. Third, determining an evaluation criteria for performance focusing on results. Fourth, building capacity of stakeholders in a PPP, especially the public, to put pressure on agents and public officials to explain and justify actions and decisions made during PPP implementation. The public should be given an opportunity to cross examine the party or actor who is giving accountability. Finally, it is important to develop an accountability plan stipulating who accounts, what to account for, when to account and how. The plan should also include who holds another party accountable and the procedure to be followed in order to make them account for their performance.

The next chapter presents the Village Enterprise Agent (VEA) model which suggests an approach that will bridge the gaps identified in the PPP for agricultural extension. The model is based on the finding of the study.

CHAPTER SEVEN

E-EXTENSION AND THE VILLAGE ENTERPRISE AGENT (VEA) MODEL: AN INNOVATIVE PPP FOR AGRICULTURAL EXTENSION – A SYNTHESIS OF FINDINGS

7.1 Introduction

In 2001, the National Agricultural Advisory Services (NAADS) programme in Uganda was introduced as a farmer led, private sector driven extension system aiming at improving productivity as well as promoting market oriented farming (Benin *et al.*, 2009:250; Rwamigisa *et al.*, 2011:2; Okoboi *et al.*, 2013:2; Rwakakamba & Lukwago, 2014:2-3). As an innovative PPP approach (Davis, 2008:23), Private Service Providers (PSP) were contracted under service contracts to deliver advisory services to farmers and thus a principal-agent relationship ensued between the public sector represented by NAADS sub-county coordination office and the private sector (Feder *et al.*, 2011:40; Okoboi *et al.*, 2013:2). The government of Uganda with support from the World Bank committed resources to ensure that the PPP and the designed extension system is efficient and effective. Empirical findings from this study reveal that farmers generally commend the support offered by PSPs compared to other government extension support programmes. This is also confirmed in an earlier evaluation cited by Okoboi *et al.* (2013:6) where the quality of services provided by PSPs were rated positive (Davis, 2008:20) although other studies report poor quality services recorded in the programme (Feder *et al.*, 2011:40).

In spite of government and development partner support coupled with positive farmer testimonies, the PPP and PSPs were later abolished in 2008. Results from this study cite political, policy, legal, regulatory, accountability and management challenges as triggers for the abolishment of the PPP. Consequently, the abolishment was followed by no systematic and structured extension system which Rwakakamba and Lukwago (2014:1) referred to as a period of indecisions and obscurities for extension work in Uganda. The shift in the NAADS mandate from provision of advisory services to input service provision aggravated the delivery of advisory services. For a long time, this denied farmers access to extension services with the majority claiming that they are currently short of timely and relevant technical information to support market oriented farming. This is attributed to the current poor facilitation and thin public extension staff now stationed at the sub-county. Some

participants in this study revealed that many complications that triggered the abolition of PSP and PPP have not been resolved to-date. Government has made attempts to restructure the extension system with the development of a new agricultural extension policy which has established the Directorate of Agricultural Extension Services (DAES) and the Single Spine Agricultural Extension System (SSAES) (Rwakakamba & Lukwago, 2014:4). While this has brought a ray of hope in terms of rejuvenating extension services, the meagre resources allocated to the directorate (compared to the NAADS input budget) creates a lot of doubt whether a purely public sector driven extension system can revive and sustain agricultural extension in Uganda (Barungi *et al.*, 2016:6; MoFPED, 2017:14). Spielman *et al.* (2010:261) confirm that the public sector can no longer play a dominant role in developing and disseminating improved technologies as it was during the green revolution. Moreover, a review of the new agricultural extension policy proposes a pluralist extension system but with minimal private sector involvement in extension (MAAIF, 2011). In most cases, this will deny the emergence of private actors that promote market-based knowledge exchanges (Spielman *et al.*, 2010:263). Ferroni and Castle (2011:1065) assert that quarantined approaches cannot address the contemporary agricultural extension challenges.

It is against this background that this chapter proposes a model which attempts to explore creative ideas in developing new and innovative approaches to PPP for agricultural extension. The innovation in this model is the facilitation of interactions among people, tools and the environment integrated within a PPP to enable social learning which supports shared reflection and improvement (Knickel *et al.*, 2009:140). It is argued that contemporary agricultural extension services require innovative approaches to supporting farmer enterprises (Paton & Dorst, 2011:573), which according to Knickel *et al.* (2009:138) may include reconfiguration of relational patterns of humans and non-humans that address both demand driven needs and public sector goals. The design thinking approach has been adopted as the appropriate methodology for ideating and developing the proposed model to resolve the challenges entrenched in the PPP for agricultural extension (Windahl, 2017:283).

The chapter is organised as follows; the second section provides the justification for developing a new PPP model for agricultural extension anchored on study findings while section three conceptualises models to provide an understanding of what they are and the foundation from which the proposed model has been developed. The fourth section examines the methodological approach to developing the proposed PPP model for agricultural

extension. This section also includes the methods followed in developing the model. The fifth section provides for an understanding of agricultural and public extension system. The section aims at providing the contextual understanding of extension and the conventional public extension system. This is followed by a justification for the Village Enterprise Agent in section six. The seventh section focuses on the integration of the Smart mobile phone and the e-extension application. This provides the justification for using mobile technology in agricultural extension. Section eight illustrates the VEA mobile technology model as well as its operationalisation. The chapter ends with section nine which presents the conclusion and recommendations.

7.2 Justification for a new agricultural extension model based on a PPP

In Uganda, agriculture is still a critical sector employing about 70% of the population, the majority of whom live in rural areas (Mwesigye *et al.*, 2017:1). The growth of the sector requires improvement in production and productivity which have remained very low (MAAIF, 2016b:9). To achieve the desired production and productivity, farmers have to access an efficient and effective agricultural extension system (Barungi *et al.*, 2016:1).

The agriculture extension system in Uganda has undergone major reforms from the adoption of the technology transfer model (progressive farmers between 1956 and 1963) to the Structural Adjustment Policies (SAPs) in the early 1990s characterised predominantly by the public extension system (Benin *et al.*, 2009:250; Barungi *et al.*, 2016:3). The SAPs were followed by the NAADS programme in 2001 which implemented an extension system based on a public-private partnership model. The NAADS programme was established after flaws in the public extension system characterized by inadequate numbers of field extension staff, limited private sector involvement and poor farmer coverage (less than 20%) with low adoption of improved technologies by farmers especially in rural areas (Barungi *et al.*, 2016:4).

The farmer-led private-driven extension system under the NAADS programme aimed at empowering farmers to demand for timely and relevant agriculture information in order to adopt good agricultural practices which would eventually improve their productivity and competitiveness. Despite the heavy investments made in the NAADS extension system, empirical evidence in this study shows that the PPP experienced political, technical, legal, policy, regulatory and implementation challenges which led to its abolition in 2008.

Following the re-structuring of the NAADS agricultural extension system, the MAAIF adopted the Single Spine Agricultural Extension System (SSAES) in 2014 guided by a new Agricultural Extension Policy 2016 which focuses on a pluralist extension approach but puts emphasis on the public extension workers (Barungi *et al.*, 2016:1; MAAIF, 2016a). Under this approach, the coordination of all extension services is conducted by the Directorate of Agricultural Extension Services (DAES) under the MAAIF (MAAIF, 2016b:16; Mwesigye *et al.*, 2017:2).

The Single Spine approach received mixed reactions with some scholars and study participants observing that MAAIF in Uganda has not taken heed of the lessons drawn from challenges in the past state-led extension systems as well as global debates on the weaknesses and recommendations for public extension systems (EPRC, 2016). Studies reveal that with the continued decline of public sector support for agricultural extension services (Barungi *et al.*, 2016:6; Gwary *et al.*, 2016:50; Mushtaq *et al.*, 2017:60), public extension systems generally are experiencing financial stress characterized by low staff morale, deficient performance and low farmer reach (Anderson & Feder, 2004:45). Knickel *et al.* (2009:137) postulate that public extension systems are known for being inefficient, bureaucratic and not sufficiently responsive to farmers' needs. They also tend to promote homogeneous 'one-size-fits all' approaches (Birner *et al.*, 2009:353). Barungi *et al.* (2016:6) highlight that the insufficient budget allocation (about 3.42% sector budget 2017/2018 which is less than 6% recommended by Inter-Ministerial Technical Committee) for coordinating extension activities, continues to cause persistent stress on the implementation of extension activities (MoFPED, 2017:14). It was also confirmed at the NAADS secretariat that while the input budget is increasing, the extension budget is still very low. This inadequate budget, coupled with low staffing levels, implies that farmers will continue to be deprived of public extension support (Barungi *et al.*, 2017:2).

While the new policy aims at not only revolutionizing the sector but also addressing the past challenges faced by agriculture extension service delivery (MAAIF, 2016:2), empirical evidence from this study reveals farmers' concerns on the SSAES citing inadequate knowledge on how the new system operates and inaccessibility of the extension workers who are stationed at the sub-county (a sub-county has an average of 7 parishes). One sub-county public extension worker who formerly worked as a private service provider under the NAADS testified that he works only twice a week because working all the days would

deplete his meagre salary on transport alone. He confirmed that the sub-county does not facilitate field trips, so only those farmers who can access the sub-county receive support from him. Responses from all the targeted sub-counties confirm that the number of public extension staff recruited is not sufficient while many of those holding office are old. They cite poor facilitation which is not attracting young people to work especially in rural areas. One top government official blamed the public extension workers for neglecting farmers and shrinking agricultural production despite government support for their capacity development (Unzima, 2017:14). In addition, the pluralist approach supports contributions from actors like NGOs and civil society, the majority of whom are donor funded and may not offer the desired sustainability. Although NGOs and civil society are credited for establishing and supporting extension systems, they have also been accused of destabilising the market forces by offering free or subsidised inputs which they have failed to sustain (Kahan, 2011:22). In many cases, they have created a dependency syndrome.

Furthermore, actors supporting farmers tend to generate their own knowledge system thereby creating segmented agricultural knowledge systems and databases which do not offer timely visibility of farm-level realities. They are thus detached from reality on the ground (Knickel *et al.*, 2009:137). It was also noted that under the new agriculture policy, the private sector is offered limited attention to provision of extension services yet studies view the private sector as the vessel which can, with significant government support, deliver demand driven extension services in a timely and contextualised setting, targeting the appropriate beneficiaries (Barungi *et al.*, 2016:1). Other scholars note that farmer demands are changing (Feder *et al.*, 2011:32) and can only be addressed by the market predominantly operated by the private sector. This is because the private sector can ably innovate interventions that meet farmer demands through a market oriented extension system (Knickel *et al.*, 2009:135-136).

While the MAAIF and the Directorate of Agricultural Extension Services desire to solve past mistakes, it appears they are moving in circles going back to the same challenges faced by the traditional public extension systems without due consideration of the private sector potential to improve extension service delivery in the country. Some scholars argue that going back to public extension service provision is not a viable option for the country (Joughin & Kjær, 2010:69). Failure to appreciate private sector support and establish an enabling environment will continuously deter private actors from supporting the agriculture sector. Therefore, prioritising and developing a specific and comprehensive complementary policy for PPPs in

extension services is needed to support both the agriculture and extension policies. If the operationalization of the SSAES is not reviewed to offer the private sector an opportunity to innovate, then it may not be in position to address the new and emerging agricultural extension challenges and farmer needs (Barungi *et al.*, 2016:21).

Drawing from the study findings, some interviewees who are technical persons at the secretariat noted that the private service providers did not add value on the pretext that their activities were not tangible. However, the majority of farmers interviewed appreciated the PSP under PPP in the NAADS extension programme and referred to them as more committed, reached the grassroots and were appreciated in terms of provision of agricultural information when compared to the public extension workers under the Single Spine approach who are stationed at the sub-county offices. In fact, many farmers testified that they are still ‘surviving’ on the technical information and advice shared by the NAADS private service providers. The majority of participants proposed a private sector led extension system as a long term solution to the extension challenges in Uganda.

Developing a new PPP model seeks to address the challenges embedded in the NAADS extension system coupled with the staggering current Single Spine public extension system in Uganda. The model proposed by this study is anchored on recommendations made by study participants and scholars on an appropriate extension PPP model. Mwesigye *et al.* (2017:4) recommends exploration of a village agent model tagged to private sector driven extension systems. The model is developed to facilitate a farmer to farmer extension system backstopped by a public extension worker through a public-private arrangement. The model is designed to deploy a Village Enterprise Agent (VEA) equipped with a smart mobile phone pre-loaded with agricultural content to support a network of farmers.

7.3 Conceptualising models

Models are suggested to evolve through scientific thinking and form a basis for explaining phenomenon or solving particular problems (Van der Waladt, 2013:4-5). Van der Waladt (2013:3) suggests that models reflect scientists’ knowledge and understanding of phenomenon and therefore they illustrate an ideal practice in addressing challenges faced by a given phenomenon. Quade (1989:143) refers to models as a ‘representation of reality’ while Van der Waladt (2013:6) considers them as building blocks for theory. Models are therefore considered important for generating knowledge as well as facilitating common understanding

and they operationalise a phenomenon towards developing improved solutions to critical challenges (Graham *et al.*, 2014:13). Models tend to review existing structures and relationships with an attempt to innovate a structure which is different from the existing one (Van der Waladt, 2013:5). While some scholars emphasise that there is a distinction between a theory and a model, other scholars use them interchangeably and thus some principles in developing theory are adopted for model development (Van der Waladt, 2013:6; Graham *et al.*, 2014:14).

Model development, as suggested by Whetten (1989), should involve a thought process which focuses on ‘the what (factors), how or relationship between factors or variables, the why - underlying rationale justifying the what and why and who, where and when or context in which the model is applicable’ (Graham *et al.*, 2014:14). This study adopts the design thinking approach or practice to develop the proposed model. Design thinking is a systematic process represented by a model, based on theory and grounded in data while converging at solving a problem (Tracey & Baaki, 2014:2). The design school of thought allows innovations in tackling emerging challenges shifting from the use of old methods to solve new problems (Dorst, 2015:1). The design practice according to Graham *et al.* (2014:15) explores how to make things happen. This practice seeks to establish methods that can be used to attain a given ultimate outcome (Reigeluth, 2013:7; Ben Mahmoud-Jouini *et al.*, 2016:145) or suggests how outcomes and goals will be achieved and the interventions for reaching those outcomes (Graham *et al.*, 2014:15). The outcomes may include graphical representation of a process (Ben Mahmoud-Jouini *et al.*, 2016:148), ‘a product (tangible or intangible), a system/scheme, an interaction, an interface, or an experience’ (Ben Mahmoud-Jouini *et al.*, 2016:148). The outcomes from the design process should aim at adding value to the customers as well as creating better market opportunities (Ben Mahmoud-Jouini *et al.*, 2016:148).

7.4 Methodological thoughts in model building

Gibbons and Langton (2016:101) add that design is anchored in developing tools, methods and strategies that are not yet in existence (Ben Mahmoud-Jouini *et al.*, 2016:145). Design thinking is a domain which uses the designer’s responsiveness and methods to meet individual expectations using feasible technologies and applications (Thoring & Müller, 2011:1). The major concern with design theories is whether the proposed methods achieve the desired goals and outcomes when compared to other methods (Reigeluth, 2013:8). This

suggests that design thinking applies innovation processes which aim at changing the existing situation into a more preferred condition by developing ‘arti-facts’ through creative reasoning (Ben Mahmoud-Jouini *et al.*, 2016:148). Thoring and Müller (2011:1) note that design thinking promotes innovations through developing ideas for products, services, or digital applications to develop solutions for challenging situations. Reigeluth (2013:8) observes that design models are envisioned to provide vivid direction and approaches to practitioners on the best course of action that addresses a given problem or challenge to generate different goals (Liedtka, 2015:926; Ben Mahmoud-Jouini *et al.*, 2016:148; Gibbons & Langton, 2016:101). Windahl (2017:283) views design practice as a methodology used for identifying a valid problem and ideating an appropriate innovation that addresses the problem (Ben Mahmoud-Jouini *et al.*, 2016:146-147).

Ben Mahmoud-Jouini *et al.* (2016:148) views design as hypothesis driven (Liedtka, 2015:926) tagged to a problem but focused towards solutions to the problem. The design model advocates for what the ideal scheme should be in order to increase the likelihood of achieving the desired outcome. This necessitates the identification of structures and core attributes that are anticipated to make the model work amidst the existing challenges which illustrate the context in which the model works (Graham *et al.*, 2014:27; Gibbons & Langton, 2016:101). The rationale for selection of the attributes should also be highlighted. These details enable other researchers to test and build a hypothesis that is part of the model. Design has evolved into adapting human-centred approaches which require the understanding of behaviours, attitudes and emotions which the study adopted (Ben Mahmoud-Jouini *et al.*, 2016:148). The involvement of various stakeholders in the innovation process has also been underscored (Ben Mahmoud-Jouini *et al.*, 2016:148) to facilitate co-creation of innovations involving actors such as farmers, agents and the public sector, to develop a unique value proposition for the beneficiaries.

It should also be noted that because delivery of extension services involves the transfer of knowledge from the extension worker to the farmer, this study also adopted some nuggets of the instructional design model which emphasises facilitating human learning and development and the situations in which to apply the methods (Reigeluth, 2013:8). Instructional design models provide contextual methods rather than universal approaches. This model, therefore, targeted conditions for instructional situations which include the nature of what is supposed to be learned, characteristics of the learner, the nature of the

learning environment (at home or in groups), and the nature of instructional development constraints. These conditions facilitated development of methods that achieve the desired outcomes (Reigeluth, 2013:8).

The proponents of the design practice like Windahl (2017:282) & Ben Mahmoud-Jouini *et al.* (2016:148) have agreed on three iterative phases for developing a model which the study adopted. The phases include exploring the existing establishment and the relationships therein to discover the problem and its root causes. The study explored challenges of PPPs in the NAADS agricultural extension system in Uganda. It targeted technical persons, implementers, farmers and the private service providers involved in the programme. Using interviews augmented with literature, the study discovered that the enabling environment did not support private sector investment and innovations. In addition, the PPP was affected by political and technical differences which were never aligned. It was also revealed that there was a lot of misinterpretation and misunderstanding of the service contract under the NAADS extension programme as well as poor management, which caused a lot of confusion among stakeholders. There were accountability arrears for resources and actions taken which affected stakeholder perception about the programme. This exploration phase also focused on conducting a needs assessment and document farmer needs. The second phase involved developing ideas and concepts that explain and address the problem or suggest opportunities. Based on recommendations from study participants, it was evident that the public extension system is relatively weak, which offers prospects to the private sector to complement and improve service delivery in a demand-driven, market-oriented economy. The third phase involves using a prototype to test the concepts as an answer to the hypothetical problem (Thoring & Müller, 2011:2; Graham *et al.*, 2014:16; Liedtka, 2015:927; Ben Mahmoud-Jouini *et al.*, 2016:148; Windahl, 2017:282). The researcher made consultations with technical persons, practitioners and academia to get their contributions and verify whether the model is applicable. The feedback received guided the review, modifications and final development of the model.

Design thinking has been acknowledged by both practitioners and scholars as an invaluable approach to generating innovative outcomes in different domains including service provision (Liedtka, 2015:926; Ben Mahmoud-Jouini *et al.*, 2016:144). The practice has been viewed as a method that is useful for identifying a challenge or problem and ideating innovative solutions to solve that problem (Windahl, 2017:283). The model proposed in this study was

developed in consultation with participants and technocrats who were involved in the process. The process included conducting interviews, developing mind maps and Venn diagrams to support their views on an appropriate PPP for agricultural extension (Thoring & Müller, 2011:2).

7.5 Agricultural extension and the public extension system

Investment in an efficient and effective agricultural extension system has the potential to increase productivity and household income and thus agricultural development especially in developing countries (Anderson & Feder, 2004:41; Guloba *et al.*, 2017:1). Many farmers in developing countries still face challenges of accessing timely, reliable and relevant agricultural extension services (Barungi *et al.*, 2016:1). Mushtaq *et al.* (2017:52) define agricultural extension as services which promote adoption and application of new knowledge, technologies, and practices that deliver positive returns on investment. Anderson and Feder (2004) & Fu and Akter (2016:1561) argue that agricultural extension services serve as a vehicle to transfer knowledge, advice and empower farmers with new technologies, practices and critical activities which fuel increased productivity and farmer competitiveness. Mushtaq *et al.* (2017:60) and (Barungi *et al.*, 2016:5) add that an ideal extension service links research to practice thereby metamorphosing research into use (practical solutions) for farmers. The linkage of extension to researchers ensures that appropriate technologies are developed and disseminated back to the beneficiaries (Aker, 2011:633). Anderson and Feder (2007:2346) refer to it as unblocking channels between research and farmers. Barungi *et al.* (2016:1) point out that extension has gone beyond technology transfer to other value added services like farmer group formation, market linkages, and partnership with other service providers.

Agricultural extension generally deploys specialists to provide farmers with technical information and backstopping (Aker, 2011:633). The agricultural information delivered to farmers through extension is therefore very important in guiding them to make appropriate farm management and production decisions. It is reported that farmers especially in Sub-Saharan Africa fall short of productivity levels due to failure to access adequate information on appropriate inputs and their application, weather patterns, good agricultural practices, critical activities, pest and disease management, farm management information, potential buyers and sellers, natural disasters and new technologies – all these are bound to affect farmers' decisions leading to market failure (Aker *et al.*, 2016:36; Fu & Akter, 2016:1561).

Scholars such as Feder *et al.* (2011:31) agree that governments and development partners have heavily invested in the public extension systems; however, they are quick to add that state-led extension systems generally continue to be weak and have limited success recorded in terms of increased productivity and adoption rates (Aker, 2011:631). Some scholars have blamed the public extension system for inadequate access to timely and relevant information, which is common in developing countries (Ghosh, 2012:4170). The public extension system generally has limited coverage, weak linkages between research and extension (unlike in the United States and Europe where extension is linked to university systems), few extension staff, poor motivation and accountability of public extension staff (Aker, 2011:631; Mushtaq *et al.*, 2017:52). This has generally led to low adoption of improved technologies especially in Sub-Saharan Africa (Anderson & Feder, 2007:2355; Aker, 2011:631-633; Mushtaq *et al.*, 2017:52).

Mushtaq *et al.* (2017:53) notes that the conventional farmer visit extension approach has been proven to benefit only a small proportion of farmers. However, more interactive, participatory, experiential, and social learning approaches are evolving over time to address the challenges in the public extension system (Mushtaq *et al.*, 2017:53). Conventional approaches to extension have also focused on technology adoption although they have still yielded low adoption rates. This has raised concerns from both scholars and practitioners with development partners stressing the importance of agricultural information dissemination while acknowledging the complexities and the need for innovations to drive adoption (De Rosa *et al.*, 2014:532). The low adoption rates may be addressed by provision of timely and relevant knowledge and information which is considered a stepping stone especially for small holder farmers who form the majority in developing countries (Emerick *et al.*, 2016:1; Fu & Akter, 2016:1561). This low adoption rate has triggered a new school of thought which suggests that adoption should be preceded by social interactions, which include sharing information and giving an opportunity for learning and collective action based on social structures (Knickel *et al.*, 2009:135-136).

Anderson and Feder (2004:51) have noted the need for the public extension policy to promote the development of private provision of extension services with emphasis on public regulation and monitoring, aimed at checking the quality of information shared with farmers and whether the information is bearing results. Their argument is that the public sector alone cannot develop and disseminate improved technologies to farmers (Spielman *et al.*,

2010:261). Barungi *et al.* (2016:5) recommends ‘a best fit model’ which rhymes with the context, engages stakeholders and is sustainable. PPPs are widely endorsed not as an absolute solution but as an appropriate alternative to addressing the inherent market failures associated with the knowledge exchange (Spielman *et al.*, 2010:263). This conforms with the June 2010 G-20 Summit which recognized the private sector as a critical actor in development and deployment of innovations that address the realities on the ground (Ferroni & Castle, 2011:1066).

7.6 Rationale for the Village Enterprise Agent (VEA)

Studies indicate that farmers consider fellow farmers or peers as credible sources of information about new technologies and best practices (Emerick *et al.*, 2016:1). In addition, research reveals that farmers learn more during technical training from agents they trust (Aker *et al.*, 2016:37), who are able to resolve contextual issues affecting them (De Rosa *et al.*, 2014:515). Emerick *et al.* (2016:1) point out that identifying and using early adopters as champions is one of the appropriate strategies to maximize information flow. De Rosa *et al.* (2014:514) add that entrepreneurial vigilance is vital for inducing farmers as up-takers of improved technologies to act proactively by fully investing resources (time and money) in accessing services. Literature also suggests that there is a paradigm shift in rural areas where farmers are becoming entrepreneurs innovating new services and exploring the markets. Some studies reveal that the young and educated farmers are beginning to appreciate and associate themselves with the private extension system. This means that individuals who are able to curve out an opportunity from farmer support and make it profit and market oriented are likely to join the private extension system (Mukherjee & Maity, 2015:1560). The major challenge facing agricultural extension has been reluctance and inability to transform farmers into rural entrepreneurs and failure of the extension system to exploit this potential (Knickel *et al.*, 2009:134). Political interference also affects the emergence and sustainability of social control mechanisms that ensure satisfaction and ownership of projects by the beneficiaries (Feder *et al.*, 2011:41).

Studies show that farmers in many developed countries only view the public extension system as one option but often times the last option in accessing information. In most of these countries like US and the Organisation for Economic Co-operation and Development (OECD), the information services are provided outside of government. The public sector in these countries has, however, established policies and programmes that complement the

emergence of private extension service support. In addition, the obligations of the private and public sectors are explicit (Anderson & Feder, 2007:2352). Feder *et al.* (2011:47) confirm the potential of private sector companies supporting advisory services linking it to other value chain agribusinesses with minimal public involvement. In view of this, this study proposes adoption of the Village Enterprise Agent (VEA) as a driver and agent for information flow for the new PPP agricultural extension model. The VEA supports the contextualisation of extension services since they stay within the same locality and understand the farming dynamics in the area.

7.6.1 The Village Enterprise Agent (VEA)

A VEA is a relatively experienced literate farmer selected by community members (fellow farmers), equipped with a smart mobile phone and trained as an adoption driver to support a network of farmers. The VEA is able to translate content on the mobile phone and support farmers in the local language. The VEA can thus support all vulnerable farmers in the community. The motivation of adopting a VEA is that he or she is chosen by farmers themselves because of their experience, leadership capabilities and trust the community has in him or her. This selection criterion is anticipated to reduce the likelihood of any political influence in identifying the VEAs. The VEA is accountable to the farmers in a network and members may decide to review or dismiss VEAs who are not meeting their needs and expectations. The VEA is also responsible for aggregating inputs as well as providing market linkages for both inputs and farmer yields.

Extension systems in developing countries are known for being unresponsive and ineffective. This has affected farmers' willingness to pay. There is also a limited number of service providers operating outside the public sector. The effectiveness of the VEA is most likely to build confidence among farmers but also increase the number of extension support staff at village level (Anderson & Feder, 2007:2355). The sustainability of the VEAs as private sector participants in extension work will require a new orientation, empowerment and training to equip them with competences that enable them to stay sustainably effective and credible before their fellow farmers (Anderson & Feder, 2007:2354; Gwary *et al.*, 2016:54). Anderson and Feder (2007:2352) support this public sector investment in capacity development for the service providers (agents). The public sector may facilitate the VEAs with a modest performance based incentive to deliver effective extension services for only a period of time (for example, two seasons). This is envisaged to save resources by engaging

fewer specialists to backstop the VEAs (Fu & Akter, 2016:1574). The study proposes that the VEA be backstopped by a public extension worker stationed at the sub-county.

The Kheti system in India has used the village assistants commonly known as Munnaas to facilitate communication between small/marginal farmers and agricultural experts using a video enabled smartphone (Fu & Akter, 2016:1563). Despite a few challenges linked to distances that had to be covered, this system has been appreciated by farmers as being useful and faster and it offers better quality information (Fu & Akter, 2016:1568). Lessons from the Kheti initiative have been used to propose the adaptation of the VEA into the public extension system in Uganda.

The use of an information intermediary armed with a mobile phone is not new in Uganda. Grameen Foundation has used the Community Knowledge Workers (CKWs) to support farmers while the Commodity Productivity and Marketing Activity supported by United States Agency for International Development (USAID) have deployed Village Agents (VAs) to support farmers. However, both programmes have experienced sustainability challenges partly because they were donor driven and not integrated in the public extension system.

7.7 The Smart mobile phone and the e-extension application

The decline in government support for extension services calls for the need for more sustainable ICT tools which can support rural farmers to access agricultural extension services (Mushtaq *et al.*, 2017:60). It is projected that ICTs are uncovering improved innovations that facilitate access to timely and relevant technical information, thereby, increasing farmers' access to public and private information as well as promoting agricultural data collection (Knickel *et al.*, 2009:143; Aker *et al.*, 2016:35). The penetration of mobile phones in Sub-Saharan Africa has created an opportunity to innovate information sharing platforms delivered by the public and private sectors (Aker, 2011:632). The exceptional penetration of mobile phones into the rural areas is presenting an opportunity for innovating mobile applications and approaches for delivering timely and relevant mobile extension systems (Aker, 2011:632; Fu & Akter, 2016:1562). This technology enables farmers to access agricultural information at reduced costs through private sources like peers within their community and or social network (Aker, 2011:632-636). Aker *et al.* (2016:38) emphasise that mobile phones can provide more contextual information and thus promote adoption. According to Mushtaq *et al.* (2017:60), digital extension tools provide a great

opportunity to support dissemination of timely and reliable information to a wider spectrum of actors in the agricultural value chain. With the increased use of smart phones and reduction in data services, there is high potential to deliver more detailed, animated and contextualized agricultural content via smart phones and tablets (Mushtaq *et al.*, 2017:53).

Different mobile applications have been designed to address diverse farmer information needs. Some of the applications provide information on market prices, weather, transport, and agricultural techniques via voice, short message service (SMS), radio, and internet (Aker, 2011:632; Aker *et al.*, 2016:35; Fu & Akter, 2016:1562). However, some challenges have been highlighted with studies showing limited contribution of the applications towards increased innovations and farmer adoption rates (Aker, 2011:632; Aker *et al.*, 2016:45; Mushtaq *et al.*, 2017:53). This has partly been attributed to their inability to integrate the social dynamics involved in farmer decision making or to engage farmers in farmer to farmer exchanges. Aker *et al.* (2016:40) note that among the existing applications, there are limited projects providing information on agricultural practices and inputs via the smart mobile phone perhaps due to the complexity in conveying the messages. In addition, the majority of interventions still apply the top-down approach with all its flaws (Mushtaq *et al.*, 2017:53).

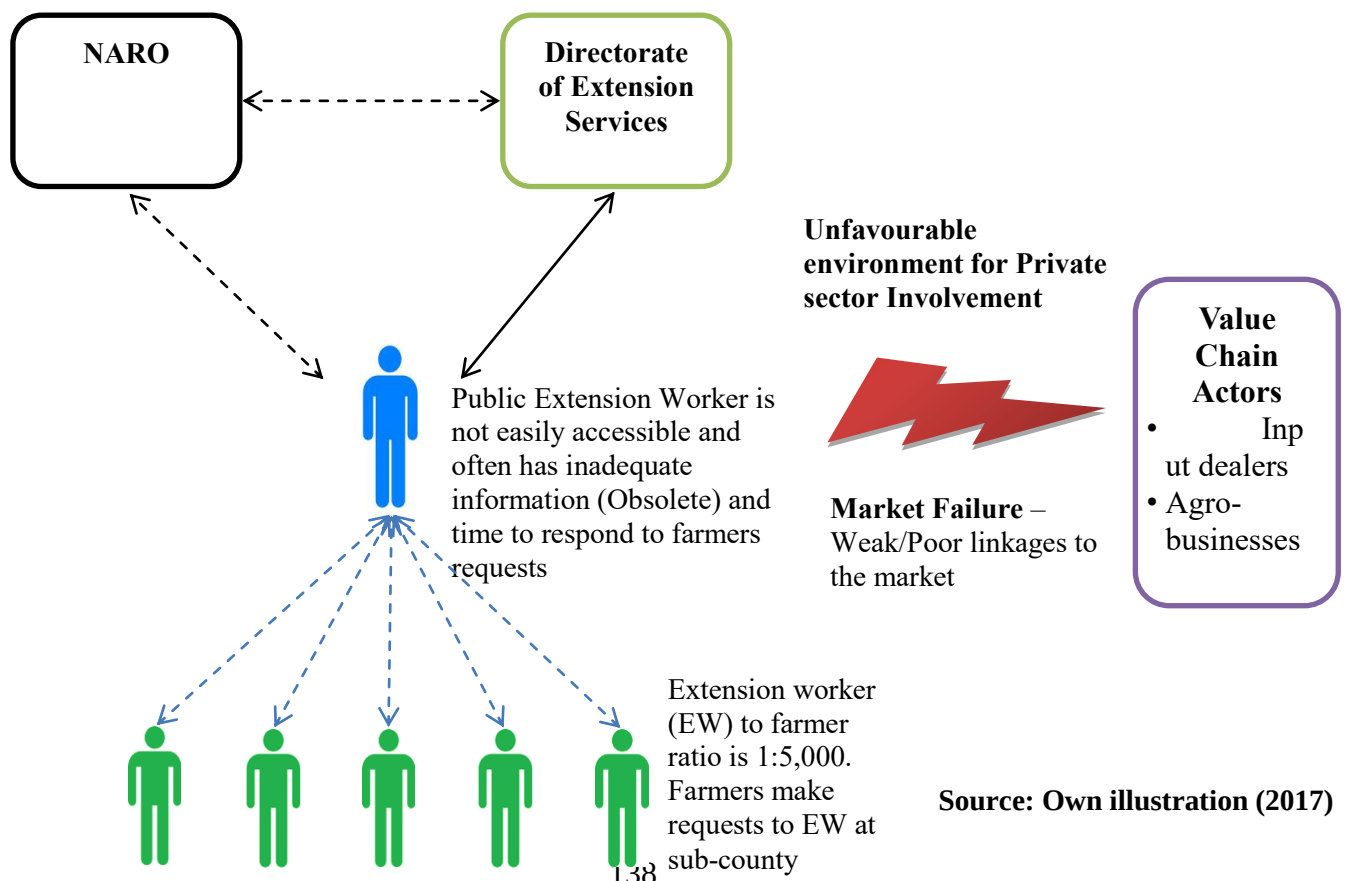
7.8 E-extension and the VEA model

This proposed model aims to leverage technology promotion in order to facilitate information access and promote farmer empowerment. The model facilitates efforts to deliver effective advisory services in addition to other business support services based on a demand-driven principle. The model also draws some lessons from the Market Oriented Advisory Services (MOAS) proposed by (Kahan, 2011:5) as well as innovative market driven extension approaches suggested by (Swanson & Rajalahti, 2010:20), which promote private sector engagement through pluralist extension. The model promotes a farmer controlled system which entails farmer empowerment, active farmer participation and increasing the role of farmers in demand articulation and monitoring and evaluation. This approach encourages partners to innovate better ways of addressing their extension challenges and reduces any forms of political control associated with pre-determined decisions and policies. The model supports the contribution from other sector players such as NGOs although emphasis is on empowering a village entrepreneur to facilitate the delivery of advisory services at the community level.

This model proposes to integrate conventional and new extension methodologies, including ICT-based and horizontal information exchanges (for example, farmer to farmer). The success of this model depends on the commitment of the DAES and National Agricultural Research Organization (NARO) to strengthen the linkages between agricultural research and extension services, and to engage other stakeholders in the sector to meet the objectives of the new model. The model also hinges on public sector support in form of developing sector-wide policies and laws which govern private sector investment and participation. Accountability is emphasised in this model where a managerial accountability mechanism is recommended in addition to establishing accountability forums where all actors are held accountable. In this model, farmers should have the capacity to demand for explanations, and hold both public and private sectors actors accountable for the extension services they offer.

The model adapts different components into innovative digital e-extension platforms which enhance stakeholder engagement and learning, in an effective and cost-efficient manner (Mushtaq *et al.*, 2017:53). It implements a phased approach and expansion and it proposes a contextual analysis of the extension challenges in a given area since farmers and the enterprises they manage are not homogeneous. The model is therefore designed to address some of the challenges identified (as shown in figure 2 below) and documented by this study.

Figure 2 showing gaps in the current extension system



Source: Own illustration (2017)

1. Currently, there is a very high Public Extension Worker to farmer ratio (1:5,000 farmers) (KIGAMBO, 2016) which is ten times more than the ratio of 1:500 recommended by FAO. In addition, extension has recorded high transaction costs, which inhibit mobility and thus dissemination of timely agricultural research and technical information (MAAIF, 2016b:10). A service provider is stationed at the sub-county with each sub-county having on average 7 parishes. This has resulted in limited farmer reach due to resource constraints, and therefore denial of timely, relevant and accurate extension support to farmers.
2. Currently, there is poor linkage between research and extension. In addition, there is limited connection between the extension workers and the research institutions. This implies poor transfer of technologies from research to extension work. There is also limited feedback of information from farmers back to research. Often times, extension workers do not have appropriate mechanisms to access timely and relevant information to share with farmers and many times use paper based tools to capture data.
3. There is limited farmer input into extension work and NARO policies and operational plans, which constrain delivery of demand-driven services
4. There is market failure due to a poor enabling environment for private sector involvement, poor market linkages to input dealers and agribusinesses. There is weak policy, legal and regulatory framework to support private sector engagement.
5. Poor coordination and collaboration has created challenges in tracking, documenting and sharing technologies and best practices (MAAIF, 2016b:10).
6. There is limited visibility in the activities of the extension workers, inappropriate field supervision and accountability mechanisms
7. Inefficient and non-traceable service delivery of agricultural technologies, inputs and finances has hampered farmers' access to information, and farm productivity.

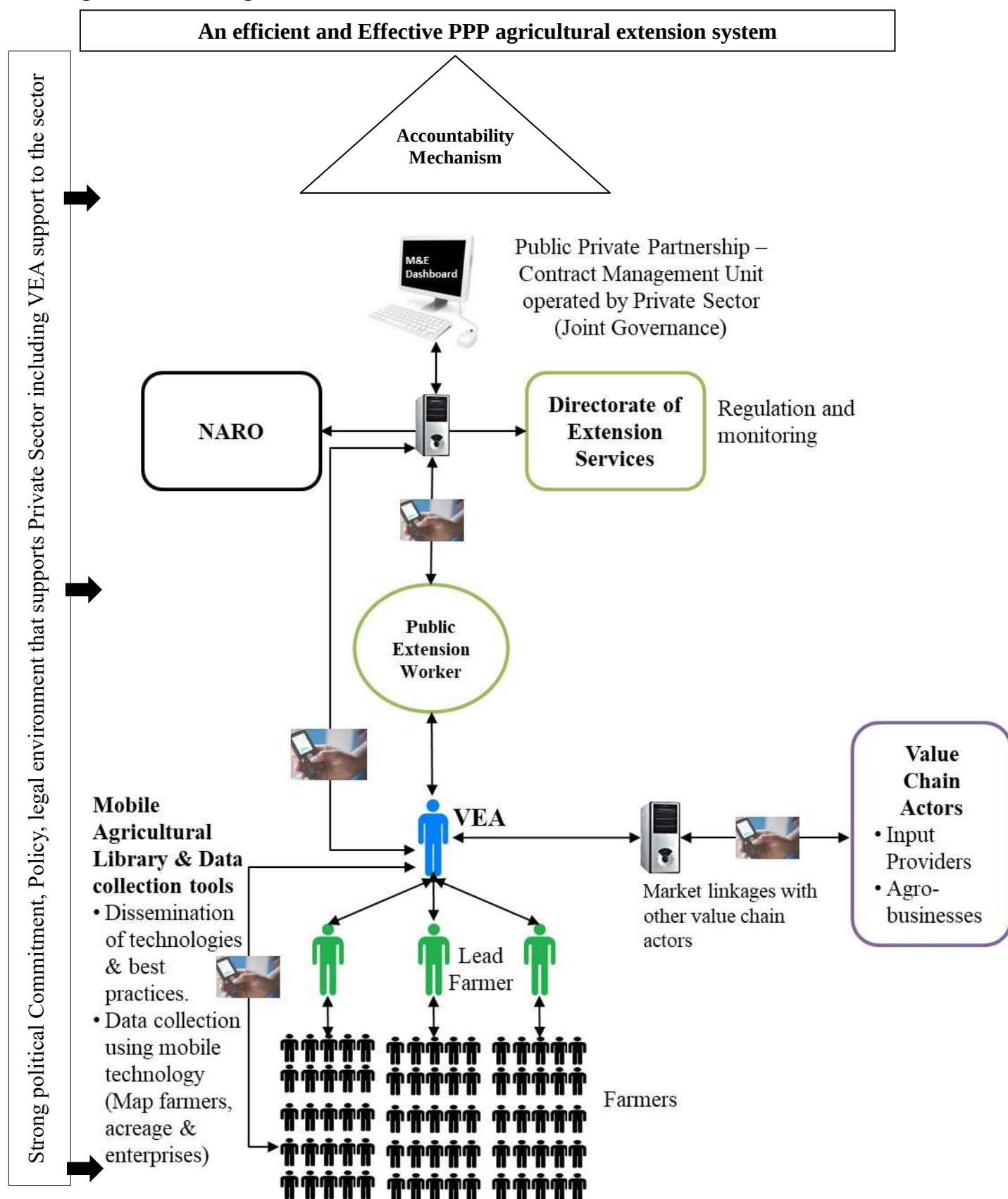
However, Siemiatycki (2012:34) has observed that PPPs are not a static model of project delivery and, therefore, the knowledge generated from the shortcomings of PPPs in agricultural extension provide an opportunity for innovations to address these contemporary challenges.

7.8.1 Model operationalisation

As already described above, in order to establish and strengthen a sustainable farmer-centred agricultural extension system, this study proposes the adoption of an agency network of small-scale entrepreneurs called Village Enterprise Agents (VEAs) to support farmers. The innovation is partly guided by Knickel *et al.* (2009:139) who suggest a detachment of a tool or method from a socio-technical configuration (in this case the public extension system) and ‘re-attach’ it to a different one (VEA). Feder *et al.* (2011:33) stress the need for modified approaches in promoting demand driven extension and responsiveness to the beneficiaries. The model conceives a shift from the public extension worker to a VEA as the focal person linking an eco-system of an agricultural value chain. This means that the model will complement the existing government extension structure by overlaying the VEA model and the technology platform backstopped by the public extension workers.

The VEA operates as a social enterprise to identify and harness business opportunities embedded in managing a network of farmers. The VEA operates as an entrepreneur to empower farmers and connect them to a sustainable eco-system that supports improved production and productivity. Guided by Knickel *et al.* (2009:138), this innovation goes beyond the proposed application and VEA (technology or new methods) to cover strategy, management, design and marketing.

Figure 3 illustrating the e-extension and VEA model



Source: Own illustration (2017)

7.8.2 Connecting the Dots

7.8.2.1 Institutional arrangements for the new PPP model

The VEA is the central proposition in this model shown in figure 3 above. It conforms with Swanson and Rajalahti (2010:17) who considers that the best demand driven extension system is one managed by farmers. This study discovered that the human resource gap is still wide, with a public extension worker to farmer ratio of 1:5,000. It is unlikely that government will bridge the gap in the near future given the budget cuts for extension services. One of the participants was confident that “farmers can support their extension system.” A VEA is therefore ideal to fill that gap by reducing the extension to farmer ratio by 96% (1:200) and at least increase farmer reach beyond the current 20%. The model which aims at delivering an efficient and effective agricultural extension system integrates mobile technology in its operations.

The study proposes that this model is implemented by the Directorate of Agricultural Extension Services (DAES) under the Ministry of Agriculture Animal Industry and Fisheries (MAAIF). However, some researchers like Kahan (2011:29) reveal that globally, there is a shift where the public sector is playing more of a coordination role rather than engaging in direct implementation. This means that given the entrepreneurial nature of the VEA extension model, the private sector is the more appropriate option for managing implementation of the model. This is derived from the evidence postulated by Swanson and Rajalahti (2010:18) that private sector firms successfully deliver extension services. The private sector is also better placed to coordinate the project because of its efficiency and effectiveness in managing projects as well as responsiveness to customer expectations (Jomo *et al.*, 2016:148). The private sector firm is responsible for, among others, deploying a network of VEAs with mobile phones to fill operational gaps in the public extension system. In addition, the private sector firm supports DAES with the organizational change management process and any identified structural changes required to ensure efficiency, effectiveness, transparency and accountability afforded by deployment of new technologies within the extension framework. The private sector firm may facilitate expansion of market orientation and marketing services for farmer produce (Swanson & Rajalahti, 2010:18) and it is also expected to submit periodic performance reports to the DAES.

A PPP agreement is recommended between a private service provider and the DAES to deliver a business process outsourced agriculture advisory service that is visible and tagged to

results. DAES will regulate the private service provider and ensure that appropriate information is shared and farmers are not abused. The public sector is responsible for creating a conducive environment for private sector emergence, participation and innovation in the extension services. The public sector should develop sector wide policies that support the implementation of the model with a clear mandate for the VEA and public extension workers. The policies should support the objectives of the PPP. The roles played by all actors including NGOs should be spelt out in the sector policies to enable harmonisation of tasks. The laws on extension services and other policies should also support the private sector to invest in new technologies and innovation. The model proposes that the public sector supports regular capacity development of both VEAs and public extension workers to deliver a robust extension service to farmers. Borrowing from some models in developing countries, the study recommends that the public sector supports the institutionalisation of VEAs on a declining basis as adopted by some developed countries like England and The Netherlands where the Agricultural Development Advisory Service organisation (ADAS) and the Dutch Agricultural Advisory Service respectively were supported and transitioned into private firms (Swanson & Rajalahti, 2010:48). This will facilitate the emergence, growth and sustainability of the VEA enterprises.

The model also recommends a joint management team to oversee the entire extension operational framework. The team should comprise the public and private sector, NGOs, farmers and politicians. It should ensure that procedures and processes for PPP implementation are well documented and adhered to in line with the DAES guidelines. The management team should initially meet at inception followed by periodic review sessions. While farmers under the NAADS were not empowered to effectively control service provider agreements (Feder *et al.*, 2011:40), this model through the VEA and their agency network is envisaged to build capacity of farmers to manage and report on performance of the contract.

7.8.2.2 Linking Extension to research

Through technology integration, the model suggests a linkage between research managed by National Agricultural Research Organisation (NARO) and the Directorate of Agricultural Extension Services (DAES). Research outputs will be uploaded on a technology platform accessible by the DAES which will synthesise and endorse content before its disseminated and accessed by users – VEAs, public extension workers and farmers. Other private information intermediaries may have access to research material and tone it down before

dissemination to targeted users. The DAES is responsible for endorsing all content before its dissemination to the target beneficiaries. All synthesised and approved content on different value chains and critical activities will then be accessible to public extension workers and VEAs via the mobile phone.

The system also allows capture of timely feedback and requests from the field. This acts as an early warning system depending on frequency of requests in a given area but also forms the basis for further research. However, while research is critical to extension, this model emphasises innovative market driven extension where the growing market for high-value products influences innovations that farmers adopt to improve their income (Swanson & Rajalahti, 2010:20).

7.8.2.3 VEA and Mobile Agriculture library

A VEA selects 10 lead farmers who each set up a demo plot, that is demonstrate input use, water harvesting systems and use of post-harvest storage facilities. Each lead farmer identifies and supports an average of 20-30 farmers in adoption of Good Agricultural Practices (GAP). The VEA supports a cluster in extension using the phone based content, crop monitoring, group saving, and he or she assesses and verifies farmers applying for credit. Information is disseminated through targeted monthly individual farmer visits or during farmer group meetings and market days. The VEA facilitates all efforts to get farmers to work together. Each VEA is equipped with a smart mobile phone pre-loaded with a suite of mobile applications to facilitate them to support farmers. Empirical evidence revealed that farmers are in dire need of technical information to make appropriate farm decisions. Kahan (2011:5) reported that if customized and shared through appropriate channels, information is one of the greatest resources that farmers require.

This model adopts an agricultural library that allows VEAs to provide real-time technical support to farmers. The mobile agricultural library is integrated with the technology platform that links research to extension and is designed to accommodate content on all agricultural value chains. This enables farmers to access timely information and technologies. In addition, the system provides for feedback to the research institutions to identify challenges or modifications or new innovations in existing technologies. The information on the phone includes weather updates, agronomy, disease and pest management, and market information. The application allows integration of photos and some animations that provide practical

experiences and facilitate learning for farmers. Unlike other platforms, the content can be accessed off-line. This means that even farmers in areas with poor or no mobile phone network can still access the agricultural library provided as long as the application is downloaded on the mobile phone. The VEA supports farmers based on the cropping calendar and critical activities. VEAs support individual and farmer groups during meetings, market days or field visits to the gardens and demonstration sites. Farmers can request for information by visiting or calling the VEA. Other farmers who own smart phones and are literate can also access the mobile applications.

In this model, the public extension workers backstop the VEAs by providing them with agriculture extension training, leadership and any other technical and operational support. The public extension workers are also equipped with the mobile technology platform in order to follow-up and report on VEA performance. This also ensures that there is no overlap in the existing DAES operations and the partners' operations but rather they complement each other. This library is critical because it addresses the timeliness and relevance of content. The content in this application can be contextualized, regularly updated and can be displayed in any language. The existence of obsolete information may not suffice because the research institutes and universities are linked to the platform using technology.

7.8.2.4 Market linkages with value chain actors (Input and output dealers)

The model uses technology to link other value chain actors to the ecosystem. The critical actors include input providers and other agro-businesses. The success of this linkage is the ability of farmers to cooperate and benefit from economies of scale accruing from input aggregation and bulking for the market. This accelerates each cluster of farmers to aggregate their demand for inputs through their lead farmer to the VEA. The VEA, who is incentivized to facilitate the aggregation, earns commissions for transactions made between the farmers and input supplier(s). It is envisioned that this process will reduce agro-dealer distribution costs and input prices and the prevalence of counterfeit inputs will be reduced because only a few trusted dealers will be involved in the network. In addition, the distribution chains will be shortened. The model is suitable for the market oriented advisory services (MOAS) to encourage farmers' aggregate yields for the market. This not only facilitates the VEA in organising communities for the market but also ensures sustainability of the network. A strong network of farmers will attract market opportunities through partnership with

agribusiness companies and financial institutions. The more agribusiness partnerships sign up, the more competitive environment the model creates.

7.8.2.5 Contract Agreements and power relations

It is envisioned that VEAs within a sub-county are backstopped by a public extension worker who is in charge of coordinating and addressing any technical issues raised by the farmers. In order to strengthen the principal-agent relationship, the model suggests an agreement between the VEA and the sub-county which stipulates the roles, expectations and obligations of all partners. The model proposes an orientation of VEAs into the operational framework of the PPP with clear objectives and expectations. In order to avoid discrepancies in the nature of the contract, the partners should ensure that the PPP contract type is clarified amongst all stakeholders and confirm that all have understood and commit to their obligations. The commitment of both the political and technical wing at the local government is also paramount in enforcing the agreements. The agreement should align interests of the partners into mutually agreed commitments. The agreements should empower farmers to revoke or reject a VEA contract that is not meeting their expectations. The model anchors on horizontal power relations where there is participation of all stakeholders, collective action and decision making with no party superior to another or capable of invoking closure rules (Wettenhall, 2003:90). The assumption is that collaboration among the actors will help to restructure and re-develop service delivery without much interference after political decisions have been made (Kort & Klijn, 2013:93; Goldstein & Mele, 2016:195). The model supports mutual dependence and some degree of equality in decision-making, rather than domination of one or more partners (Brinkerhoff & Brinkerhoff, 2011:4). The model thus subscribes to the pluralist extension system. It appreciates the contribution of the NGOs in supporting extension services and suggests their integration into the VEA model in order to have a holistic and traceable extension system.

7.8.2.6 Performance management approach

(a) E-data collection and the M&E dashboard

Empirical evidence revealed that the NAADS programme was predominantly using paper-based data collection methods which faced many limitations. The VEA mobile suite includes a data collection tool which facilitates timely data collection on key performance indicators. The tool will keep a record of farmer profiles linked to a VEA and tag farmer performance to a VEA. The system captures and updates each farmer's farm management plan, progress and

supports projection on yield. The tool will track the activities of the VEAs including the Global Position System (GPS) where support is being undertaken. All data collected is submitted to an online dashboard which facilitates timely decision making and corrective action in case of any deviation or poor performance. It is envisaged that the mobile data collection mechanism will improve transparency and address the gaps of inappropriate field supervision and accountability.

Since production and productivity is a process, the model proposes both output and outcome indicators to capture performance. The output indicators will focus on reporting deliverables which include the number of farmers registered, trained and supported. The outcome indicators will report on the change that has been created as a result of implementing the new proposed model. Outcomes may include the number of farmers who have adopted new technologies shared on the mobile phone and increased productivity. In order to build an effective performance management system, partners must ensure that there is management capacity to acquire, nurture and monitor the PPP projects. It is recommended that the model develops standard operating procedures for verifying performance against the contract. The model proposes regular and continuous monitoring and recording of any successes and challenges in line with the targets and objectives. Data should be collected on farmer progress to track immediate, intermediate and ultimate outcomes happening all through the value chain process.

In addition, the process should involve a process of critical reflection and learning to allow partners learn and identify best practices for implementing and managing a PPP model for agricultural extension. The model suggests the involvement of partners in developing key performance indicators for extension services to allow for assessment of sustainability and continued up-take of ICT-based interventions (Fu & Akter, 2016:1574). The key performance indicators should be integrated with a customized real-time monitoring and evaluation online dashboard with data visualization to track field operational progress and outcome proxies for the programme. The dashboard will show, inter alia, the performance of VEAs against the set monthly targets, the location, and how many farmers are being reached. The VEA mobile phones will be linked to the dashboard to allow automated updates as the extension support services are being offered. This digital monitoring and evaluation system will not only enable the project to have a better view of field implementation and track results, but it will also make rapid mid-course corrections based on data analysis and field visualisation.

7.9 Overall concluding remarks and policy implications

The study sought to discover the challenges that affected the public-private partnership under the NAADS extension programme in Uganda. The study confirmed that it is impossible to divorce politics from PPPs. It was revealed that politics has a strong influence on PPP. The study discovered that there was strong government commitment for the PPP but the technical commitment was very weak. The discrepancy between the technical and government wing punctured the evolvement and growth of the principal-agent relationship under the NAADS PPP. Eventually the programme was hijacked by politicians characterised by political interference which led to poor budget implementation, unexpected changes and modifications in the programme and eventually recommendation for abolishment of the PSPs.

It was also discovered that the programme was characterised by a weak agricultural extension policy, legal and regulatory framework which affected emergence of private sector investment and participation into the NAADS PPP programme. There was also misinterpretation and misunderstanding of the existing policies and guidelines which affected harmonisation of tasks and responsibilities in managing the principal-agent relationship. There was no regulatory framework and it was very difficult to ensure that the farmers are not cheated.

In addition, the study found out that the NAADS PPP experienced challenges with contract and performance management which affected the principal-agent relationship. There were mixed reactions with the type of relationship the PSPs had with the private sector. Even those who reported it as a PPP could not comprehend the type of PPP being implemented. According to the study, this led to failure to align objectives, interests and commitments among the implementing partners. The PPP was characterised by poor coordination of the service contract which also led to exploitation of the contract management process. Furthermore, the PPP experienced gaps in the performance management framework which created difficulty in following up PSP targets and objectives. The output specifications also made it very difficult to measure programme results which forced politicians to believe that the PPP was indeed a failure and requires termination.

The study discovered that the PPP also faced challenged of accountability among the different stakeholders. The PPP focused on the traditional public accountability mechanism and failed to integrate managerial accountability which relies on performance and results.

The accountability mechanism did not provide a forum for partners to hold open discussions, debate, discuss and hold partners accountable for their actions and decisions made.

On the basis of the findings above, a new e-extension and Village Enterprise Agent Model was developed to address some of the challenges. This new PPP model has been developed to complement the public extension system which is currently experiencing several bottlenecks. The model has been developed in the wake of the political, policy, legal, regulatory, accountability and implementation management challenges embedded in the PPP. The new model therefore aims at establishing an efficient and effective agricultural extension system that uses mobile tools to manage a network of village enterprise agents integrated into a public extension system. The model forms a basis for the public sector to partner with the private sector to deliver technology based extension services using a VEA. The public sector should, therefore, view the private sector as partners rather than competitors as it was in the NAADS extension service.

The model is not a one size fits all which means different regions and districts may adopt approaches that support the contextualisation of the PPP. This will facilitate identification of that the best aspects that can be adapted and strengthened (Hodge *et al.*, 2017:278).

This model is envisaged to reduce political meddling in service delivery by empowering farmers to own and make decisions on their extension processes backstopped by an agent and a public extension worker. The model also opens up opportunities for village enterprise agents to identify business opportunities in managing a network of farmers. The VEA mobile technology model facilitates the DAES to map all extension workers and their activities. It offers technology-based coordinated efforts with ability to track and have timely visibility of VEA and public extension worker field activities which has not happened before. This introduces an agricultural extension management information system capable of capturing activities conducted by partners supporting extension. This will increase accountability which is likely to justify more funding for extension services.

This model contributes towards a reduction of service provider to farmer ratio by 96% and creates an ecosystem that links farmers to the market. MAAIF should establish a performance based incentive to facilitate the VEAs to meet principal targets. However, the success of this model depends on the political and technical support in terms of creating an enabling

environment which aids private sector investment and involvement. The MAAIF should develop articulate sector wide policies that support the VEAs to complement and strengthen the extension system in the country. The policy should be developed in line with the National Development Plan, political climate, context, power, time, and place (Bird *et al.*, 2003:7; Hodge *et al.*, 2017:278). This should be followed by implementation coordination and control of the policies to ensure efficiency and effectiveness of the PPP (Bird *et al.*, 2003:11). There should be regular review of the policy to ensure that it addresses contemporary needs of the farmers and other stakeholders. A private sector partner should manage the implementation of the e-extension and VEA model. The management of the model should integrate a timely accountability mechanism supported by technology which defines who accounts for what, when, how and who holds another accountable. Unlike in the NAADs programme, the model recommends a participatory approach to developing the performance indicators so that all parties can understand and own the results before embarking on implementation.

The DAES should be adequate regulation of the agricultural extension sector to tame the public extension workers and their interests, protect VEAs from political influence as well as ensure that farmers are not exploited. The regulation should be based on competent analysis and free of any political influence. Regulation should promote results and collective interest to promote improved service delivery. The success of the DAES will depend on the credibility and commitment they exhibit in executing their tasks.

REFERENCE LIST

Abdel Aziz, A.M. 2007. Successful delivery of public-private partnerships for infrastructure development. *Journal of construction engineering and management*, 133(12):918-931.

ADB (Asian Development Bank). 2008. Public-Private Partnership Handbook.

ADB, IADB & WB (Asian Development Bank, International American Development Bank, World Bank). 2014. Public Private Partnerships Reference Guide. Vol. 2.

AfDB (African Development Bank Group). 2013. SUPPORTING the Transformation of the Private Sector in Africa, Private Sector Development Strategy, 2013-2017.

Ahenkan, A. & Osei-Kojo, A. 2014. Achieving sustainable development in Africa: Progress, challenges and prospects. 3:162-176.

Aker, J.C. 2011. Dial “A” for agriculture: a review of information and communication technologies for agricultural extension in developing countries
Agricultural Economists, 42:631–647.

Aker, J.C., Ghosh, I. & Burrell, J. 2016. The promise (and pitfalls) of ICT for agriculture initiatives. *Agricultural Economics*, 47(S1):35-48.

Amin, M.E. 2005. Social Science Research: Conception, Methodology and Analysis. Makerere University, Kampala, Uganda: Makerere University Printery.

Anderson, J.R. & Feder, G. 2004. Agricultural Extension: Good Intentions and Hard Realities. *World Bank Research Observer*, 19(1): 41–60.

Anderson, J.R. & Feder, G. 2007. Agricultural Extension. (In Evenson, R. & Pingali, P., eds. Handbook of Agricultural Economics. Washington, DC: Elsevier B.V.

Aneta, K. & Ewa, S. 2007. Public Private Partnership and Game Theory. *Gazdalkodas*, 51.

Ansu, Y., Booth, D., Kelsall, T. & te Velde, D.W. 2016. AFRICAN TRANSFORMATION FORUM 2016 PUBLIC AND PRIVATE SECTOR COLLABORATION FOR ECONOMIC TRANSFORMATION.

APMG. 2017. Contract Management Framework: APMG International.

Asquith, A., Brunton, M. & Robinson, D. 2015. Political Influence on Public–Private Partnerships in the Public Health Sector in New Zealand. *International Journal of Public Administration*, 38(3):179-188.

Atkinson, R. & Flint, J. 2001. Accessing hidden and hard-to-reach populations: Snowball research strategies. *Social research update*, 33(1):1-4.

Babayan, D. & Kadlečíková, M. 2016. Principal-agent model in agricultural based projects in the Republic of Armenia (the problem statement).

Babbie, E.R. 2007. The practice of social research. 11. Belmont, CA: Thomson Wadsworth.

Baloch, M.A. & Thapa, G.B. 2017. Review of the Agricultural Extension Modes and Services with the focus to Balochistan, Pakistan. *Journal of the Saudi Society of Agricultural Sciences*.

Barungi, M., Adong, A. & Guloba, M. 2017. Is Implementing Uganda's Single Spine Agricultural Extension Reform Feasible? Kampala, Uganda.

Barungi, M., Guloba, M. & Adong, A. 2016. Uganda's Agricultural Extension Systems: How appropriate is the Single Spine Structure? Kampala, Uganda. (16).

Basheka, B.C. & Tshombe, L.-M. 2017. New Public Management in Africa: Emerging Issues and Lessons: Routledge.

Bassioni, H.A., Price, A.D. & Hassan, T.M. 2004. Performance measurement in construction. *Journal of Management in Engineering*, 20(2):42-50.

Ben Mahmoud-Jouini, S., Midler, C. & Silberzahn, P. 2016. Contributions of Design Thinking to Project Management in an Innovation Context. *Project Management Journal*, 47(2):144-156.

Benin, S., Nkonya, E., Okecho, G., Randriamamonjy, J., Kato, E., Lubade, G. & Kyotalimye, M. 2009. Returns to spending on agricultural extension: the case of the National Agricultural Advisory Services (NAADS) program of Uganda. *Agricultural Economics*, 42 249–267.

Benin, S., Nkonya, E., Okecho, G., Randriamamonjy, J., Kato, E., Lubade, G. & Kyotalimye, M. 2018. Micro-econometric and Micro-Macro Linked Models: Impact of the National Agricultural Advisory Services (NAADS) Program of Uganda—Considering Different Levels of Likely Contamination with the Treatment. *Development Policies and Policy Processes in Africa*. Springer. p. 85-95).

Bergen, M., Dutta, S. & Walker Jr, O.C. 1992. Agency relationships in marketing: A review of the implications and applications of agency and related theories. *The Journal of Marketing*:1-24.

Bird, K., Booth, D. & Pratt, N. 2003. Food security crisis in Southern Africa: the political background to policy failure. (In. Forum for Food Security in Southern Africa, Theme paper organised by.

Birner, R., Davis, K., Pender, J., Nkonya, E., Anandajayasekeram, P., Ekboir, J., Mbabu, A., Spielman, D.J., Horna, D. & Benin, S. 2009. From best practice to best fit: a framework for designing and analyzing pluralistic agricultural advisory services worldwide. *Journal of agricultural education and extension*, 15(4):341-355.

Birner, R. & Resnick, D. 2010. The political economy of policies for smallholder agriculture. *World Development*, 38(10):1442-1452.

Black, G.S. 1972. A theory of political ambition: Career choices and the role of structural incentives. *American Political Science Review*, 66(01):144-159.

Bloomfield, P. 2006. The Challenging Business of Long-Term Public–Private Partnerships: Reflections on Local Experience. *Public Administration Review*, 66(3):400-411.

Börzel, T.A. & Risse, T. 2005. Public-Private Partnerships: Effective and legitimate tools of international governance (pp. 195-216): University of Toronto Press Toronto, Ontario, Canada.

Bouman, S., Friperon, R., Gielen, M. & Wilms, P. 2013. Public-Private Partnerships in developing countries. *IOB Evaluations (Netherlands) eng no. 378*.

Bovens, M. 2010. Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism. *West European Politics*, 33(5):946-967.

Bovens, M.A. 2006. Analysing and Assessing Public Accountability. A Conceptual Framework. *European Governance Papers (EUROGOV)*.

Brinkerhoff, D.W. & Brinkerhoff, J.M. 2011. Public–private partnerships: perspectives on purposes, publicness, and good governance. *Public Administration and Development*, 31(1):2-14.

Brown, T.L., Potoski, M. & Van Slyke, D.M. 2006. Managing public service contracts: Aligning values, institutions, and markets. *Public Administration Review*, 66(3):323-331.

Burnett, M. 2005. Beyond the New Public Procurement Directive—the Future for Public Private Partnerships (PPP). *EIPAScope*, 2005(3):21-25.

Buse, K. & Harmer, A. 2004. Power to the Partners?: The politics of public-private health partnerships. *Development*, 47(2):49-56.

Calhoun, C. 2009. What Good Is Commitment? *Ethics*(119):613–641.

Carpintero, S. & Siemiatycki, M. 2016. The politics of delivering light rail transit projects through public-private partnerships in Spain: A case study approach. *Transport Policy*, 49:159-167.

Cheng, C. & Wang, Z. 2009. Public private partnerships in China: making progress in a weak governance environment. *Briefing Series*, 56.

Christensen, T. & Lægreid, P. 2015. Performance and accountability—A theoretical discussion and an empirical assessment. *Public Organization Review*, 15(2):207-225.

Corrigan, M.B. 2005. Ten Principles for Successful Public, Private Partnerships: Urban Land Institute.

Cruz, C.O. & Marques, R.C. 2013. Flexible contracts to cope with uncertainty in public–private partnerships. *ELSEVIER*, 31:473–483.

Davis, K. 2008. Extension in sub-Saharan Africa: Overview and assessment of past and current models and future prospects. *Journal of International Agricultural and Extension Education*, 15(3):15-28.

De Rosa, M., Bartoli, L. & La Rocca, G. 2014. Testing Extension Services through AKAP Models. *The Journal of Agricultural Education and Extension*, 20(5):513-535.

De Schepper, S., Doods, M. & Haezendonck, E. 2014. Stakeholder dynamics and responsibilities in Public–Private Partnerships: A mixed experience. *International Journal of Project Management*, 32(7):1210-1222.

DeGrassi, A. 2008. " Neopatrimonialism" and Agricultural Development in Africa: Contributions and Limitations of a Contested Concept. *African Studies Review*:107-133.

Delmon, J. 2010. Understanding Options for Public-Private Partnerships in Infrastructure. Sorting out the forest from the trees: BOT, DBFO, DCMF, concession, lease....75.

Delmon, J. 2011. Public-private partnership projects in infrastructure: an essential guide for policy makers: Cambridge University Press.

Demisse, B., Awulachew, S.B., Adenew, B. & Mengiste, A. 2011. Creating extension service delivery through public-private partnership. (In. International Water Management Institute Conference Papers organised by.

Dorst, K. 2015. Frame innovation: Cambridge, MA: MIT Press.

Dubnick, M.J. & Justice, J.B. 2006. Accountability and the evil of administrative ethics. *Administration & Society*, 38(2):236-267.

EC (European Commission). Policy, D.-G.-R. 2003. GUIDELINES FOR SUCCESSFUL PUBLIC - PRIVATE PARTNERSHIPS. Brussels.

EC (European Commission). 2005. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on Public-Private Partnerships and Community Law on Public Procurement and Concessions Brussels.

Edelenbos, J. & Teisman, G.R. 2008. Public-Private Partnership: On the Edge of Project and Process Management. Insights from Dutch Practice: The Sijtwende Spatial Development Project *SAGE Journals, Environment and Planning C: Government and Policy*, 26:614-626.

EIU (Economist Intelligence Unit). 2015. Evaluating the environment for public–private partnerships in Africa: The 2015 Infrascopie. EIU, London.

Emerick, K., de Janvry, A., Sadoulet, E. & Dar, M.H. 2016. Enhancing the diffusion of information about agricultural technology.

EPEC (European PPP Expert Centre). 2015. PPP Motivations and Challenges for the Public Sector Why (not) and how

EPRC (Economic Policy Research Centre). 2016. Uganda's Agricultural Extension Systems: How appropriate is the Single Spine Structure? by Mildred Barungi, Madina Guloba and Annet Adong. Makerere University Campus, Kampala, Uganda.

Fabregas, A., Rozo, M. & Garza, N. 2017. Public Private Partnerships Transparency and Accountability: Where is my data? In Bank, T.W. (Ed.). *Governance and Development* (Vol. 2017.). Washington, USA: The World Bank. (Online).

FAO (Food and Agriculture Organisation). 2016. Public-private partnerships for agribusiness development, by Rankin, M., Gálvez Nogales, E., Santacoloma, P., Mhlanga, N. & Rizzo, C. Rome, Italy. (9251092524).

Farber, D.A. 2014. Public Choice Theory and Legal Institutions.

Farquharson, E., de Mästle, C.T., Yescombe, E. & Encinas, J. 2011. How to engage with the private sector in public-private partnerships in emerging markets: World Bank.

Farquharson, E. & Yescombe, E. 2011. How to engage with the private sector in public-private partnerships in emerging markets: World Bank Publications.

Feder, G., Birner, R. & Anderson, J.R. 2011. The private sector's role in agricultural extension systems: potential and limitations. *Journal of Agribusiness in Developing and Emerging Economies*, 1(1):31-54.

Ferroni, M. & Castle, P. 2011. Public-private partnerships and sustainable agricultural development. *Sustainability*, 3(7):1064-1073.

Flinders, M. 2005. The politics of public-private partnerships. *The British Journal of Politics and International Relations*, 7(2):215-239.

Fombad, M.C. 2013. Accountability challenges in public-private partnerships from a South African perspective. *African Journal of Business Ethics*, 7(1):11-25.

Forrer, J., Kee, J.E., Newcomer, K.E. & Boyer, E. 2010. Public-private partnerships and the public accountability question. *Public Administration Review*, 70(3):475-484.

Fox, A.M., Balarajan, Y., Cheng, C. & Reich, M.R. 2015. Measuring political commitment and opportunities to advance food and nutrition security: piloting a rapid assessment tool. *Health policy and Planning*, 30(5):566-578.

Fox, R.L. & Lawless, J.L. 2005. To run or not to run for office: Explaining nascent political ambition. *American Journal of Political Science*, 49(3):642-659.

Friis-Hansen, E., Taylor, E. & Duveskog, D. 2014. Nonformal Agricultural Education Reform in Uganda: The Impact on Extension Workers.

Fu, X. & Akter, S. 2016. The Impact of Mobile Phone Technology on Agricultural Extension Services Delivery: Evidence from India. *The Journal of Development Studies*, 52(11):1561-1576.

Gawel, E. 2011. Political drivers of and barriers to Public-Private Partnerships: The role of political involvement.

Gebremedhin, B. 2010. Results-based monitoring and evaluation for organizations working in agricultural development: a guide for practitioners: ILRI (aka ILCA and ILRAD).

Ghosh, S. 2012. Innovations in public sector-led agricultural extension. *Scientific Research and Essays*, 7(49):4170-4175.

Gibbons, A.S. & Langton, M.B. 2016. The application of layer theory to design: the control layer. *Journal of Computing in Higher Education*, 28(2):97-135.

Gibson, B., Wallace, C.Y. & Sturgill, R.E. 2015. Synthesis of Public-Private Partnerships: Potential Issues and Best Practices for Program and Project Implementation and Administration.

Goldstein, B.T. & Mele, C. 2016. Governance within public–private partnerships and the politics of urban development. *Space and Polity*, 20(2):194-211.

Graham, C.R., Henrie, C.R. & Gibbons, A.S. 2014. Developing models and theory for blended learning research. *Blended learning: Research perspectives*, 2:13-33.

Grossi, G. & Thomasson, A. 2015. Bridging the accountability gap in hybrid organizations: the case of Copenhagen Malmö Port. *International review of administrative sciences*, 81(3):604-620.

Guloba, M., Barungi, M. & Adong, A. 2017. Understanding Farmers' Agriculture Extension Seeking Behaviour in Uganda. Kampala, Uganda.

Gwary, M.M., Asindaya, Z. & Abba, M.A. 2016. Public-private partnership as panacea for effective extension service delivery: Review of experience and potential in Nigeria.

Hall, D. 2008. PPPs in the EU: a critical appraisal.

Hammami, M., Ruhashyankiko, J.-F. & Yehoue, E.B. 2006. IMF Working Paper: Determinants of Public-Private Partnerships in Infrastructure.

Hart, O. 2003. Incomplete contracts and public ownership: Remarks, and an application to public-private partnerships. *The Economic Journal*, 113(486).

Hashim, H., Che-Ani, A.I. & Ismail, K. 2017. Public Private Partnership (PPP) Project Performance in Malaysia: Identification of Issues and Challenges. *International Journal of Supply Chain Management*, 6(2):265-275.

Heaver, R. 2005. Strengthening Country Commitment to Human Development: Lessons from Nutrition. . Washington D.C.

Henjewe, C., Sun, M. & Fewings, P. 2011. Value for money optimisation and sustainability in PFI projects.

Hlaváček, J. & Hlaváček, M. 2006. “Principal–Agent” Problem in the Context of the Economic Survival. *Acta Oeconomica Pragensia*, 2006(3):18-33.

Hodge, G. 2006. Public private partnerships and legitimacy. *UNSWLJ*, 29:318.

Hodge, G. & Greve, C. 2010. Public-Private Partnerships: Governance Scheme or Language Game? *Australian Journal of Public Administration*, 69(s1):S8-S22.

Hodge, G. & Greve, C. 2011. Theorizing public-private partnership success: A market-based alternative to government. (In. Paper for the Public Management Research Conference at Syracuse University organised by. p. 2-4).

Hodge, G., Greve, C. & Boardman, A. 2017. Public-Private Partnerships: The Way They Were and What They Can Become. *Australian Journal of Public Administration*, 76(3):273-282.

Hodge, G.A. & Greve, C. 2007. Public-private partnerships: an international performance review. *Public Administration Review*, 67(3):545-558.

Houdret, A., Bruentrup, M. & Scheumann, W.H. 2017. Unlocking the Irrigation Potential in Sub-Saharan Africa: Are Public-Private Partnerships the Way Forward?

Hsieh, H.-F. & Shannon, S.E. 2005. Three approaches to qualitative content analysis. *Qualitative health research*, 15(9):1277-1288.

Hueth, B. & Hennessy, D.A. 2002. Contracts and risk in agriculture: Conceptual and empirical foundations. A Comprehensive Assessment of the Role of Risk in US Agriculture. Springer. p. 167-189).

IFC (International Finance Corporation). 2013. Handshake IFC's Quarterly Journal on Public Private Partnerships. 11.

IMF (International Monetary Fund). Prepared by the Fiscal Affairs Department (in Consultation with Other Departments, T.W.B., And the Inter-American Development Bank). 2004. Public-Private Partnerships.

Iossa, E. & Martimort, D. 2015. The simple microeconomics of public-private partnerships. *Journal of Public Economic Theory*, 17(1):4-48.

Jääskeläinen, A., Laihonon, H. & Lönnqvist, A. 2014. Distinctive features of service performance measurement. *International Journal of Operations & Production Management*, 34(12):1466-1486.

Janssen, R., Graaf, R.d., Smit, M. & Voordijk, H. 2016. Why local governments rarely use PPPs in their road development projects: Understanding the barriers. *International journal of managing projects in business*, 9(1):33-52.

Javed, A.A., Lam, P.T. & Chan, A.P. 2013a. A model framework of output specifications for hospital PPP/PFI projects. *Facilities*, 31(13/14):610-633.

Javed, A.A., Lam, P.T. & Zou, P.X. 2013b. Output-based specifications for PPP projects: lessons for facilities management from Australia. *Journal of Facilities Management*, 11(1):5-30.

- Johnston, J.M. & Romzek, B.S. 2005. Traditional contracts as partnerships: effective accountability in social service contracts in the American states. *The Challenge of Public-Private Partnerships: Learning from International Experience*, Greve C, Hodge G (eds). Edward Elgar Publishing: Northampton, MA. p. 117–143.).
- Jomo, K., Chowdhury, A., Sharma, K. & Platz, D. 2016. Public-Private Partnerships and the 2030 Agenda for Sustainable Development: Fit for purpose?
- Jones, R. & Noble, G. 2008. Managing the implementation of public–private partnerships. *Public money and Management*, 28(2):109-114.
- Joughin, J. & Kjær, A.M. 2010. The politics of agricultural policy reform: the case of Uganda. (In. Forum for Development Studies organised by: Taylor & Francis. p. 61-78).
- Jumaboev, K., Reddy, J.M., Muhammedjanov, S., Anarbekov, O. & Eshmuratov, D. 2013. An innovative public-private partnership for irrigation extension in Fergana valley of Central Asia. *Journal of Agricultural Extension and Rural Development*, 5 (1):21-30.
- Kahan, D. 2011. Market-oriented advisory services in Asia – a review and lessons learned. Bangkok: Fao. (2011/10).
- Kidd, A., Lamers, J., Ficarelli, P. & Hoffmann, V. 2000. Privatising agricultural extension: caveat emptor. *Journal of Rural studies*, 16(1):95-102.
- KIGAMBO, G. 2016. Uganda’s plan to support its agriculture. *The East African*.
- Kisitu, B. 2010. The challenges of Implementing M&E systems in government programmes, A case of National Agricultural Advisory Services in Goma Sub-county, Mukono district. . Kampala, Uganda: Uganda Management Institute.
- Klijn, E.-H. & Teisman, G.R. 2003. Institutional and strategic barriers to public—private partnership: An analysis of Dutch cases. *Public money and Management*, 23(3):137-146.
- Knickel, K., Brunori, G., Rand, S. & Proost, J. 2009. Towards a Better Conceptual Framework for Innovation Processes in Agriculture and Rural Development: From Linear Models to Systemic Approaches. *The Journal of Agricultural Education and Extension*, 15(2):131-146.
- Kokate, K., Kharde, P., Patil, S. & Deshmukh, B. 2016. Farmers’-led extension: experiences and road ahead. *Indian Research Journal of Extension Education*, 9(2):18-21.
- Kort, I.M., Verweij, S. & Klijn, E.-H. 2016. In search for effective public-private partnerships: An assessment of the impact of organizational form and managerial strategies in urban regeneration partnerships using fsQCA. *Environment and Planning C: Government and Policy*, 34(5):777-794.
- Kort, M. & Klijn, E.-H. 2013. Public–private partnerships in urban regeneration: Democratic legitimacy and its relation with performance and trust. *Local Government Studies*, 39(1):89-106.

KPMG. 2015. Public-Private Partnership - Emerging Global Trends and Implications for future Infrastructure development in Australia.

Krell, R.K., Fisher, M.L. & Steffey, K.L. 2016. A proposal for public and private partnership in Extension. *Journal of integrated pest management*, 7(1).

Kwak, Y.H., Chih, Y. & Ibbs, C.W. 2009. Towards a comprehensive understanding of public private partnerships for infrastructure development. *California management review*, 51(2):51-78.

Kwarteng, J. & Naibakelao, D. 2016. PUBLIC-PRIVATE PARTNERSHIP FOR RESPONSIVE EXTENSION EDUCATION: THE CASE OF SAFE AND UCC IN GHANA. *African Journal of Food, Agriculture, Nutrition and Development*, 16(1):1-16.

Ladele, A.A. 2011. Approaches to Private Agricultural Extension Service delivery in Africa: Lessons from current development initiatives in Nigeria. Paper presented at the Innovations in Extension and Advisory services International conference, Nairobi - Kenya.

Ladele, A.A. & Ayoola, G.B. 2011. Commodity Alliance Model – An Option for Advancing Private and Commercial Extension Service Delivery in Nigeria. *Journal of Agricultural Extension and Rural Development*, 15(2):70-78.

Laffont, J.-J. & Martimort, D. 2009. The theory of incentives: the principal-agent model: Princeton university press.

Lam, P.T., Kumaraswamy, M.M. & Ng, T.S. 2003. A comparative study of user perceptions on prescriptive specifications versus performance-based specifications. (In. Proceeding of the 19th Annual ARCOM Conference. Association of Researchers in Construction Management, University of Brighton organised by. p. 121-130).

Leruth, L. & Paul, E. 2007. A principal-agent theory approach to public expenditure management systems in developing countries. *OECD Journal on Budgeting*, 7(3).

Levai, C.M. 2012. Theoretical and practical aspects of the public-private partnership in the European Union. *Acta Universitatis George Bacovia*(1):101.

Liedtka, J. 2015. Perspective: Linking design thinking with innovation outcomes through cognitive bias reduction. *Journal of Product Innovation Management*, 32(6):925-938.

Linder, S.H. 1999. Coming to terms with the public-private partnership a grammar of multiple meanings. *American behavioral scientist*, 43(1):35-51.

Liu, J., ED Love, P., Smith, J., Regan, M. & Sutrisna, M. 2014a. Public-Private Partnerships: a review of theory and practice of performance measurement. *International Journal of Productivity and Performance Management*, 63(4):499-512.

Liu, J., Love, P., Smith, J. & Regan, M. 2015. A New Framework for Evaluating Public-Private Partnerships.

- Liu, J., Love, P.E., Carey, B., Smith, J. & Regan, M. 2014b. Ex-ante evaluation of public-private partnerships: Macroeconomic analysis. *Journal of Infrastructure systems*, 21(2):04014038.
- Liu, J., Love, P.E., Davis, P.R., Smith, J. & Regan, M. 2013. Performance measurement framework in PPP projects. (In. P3Book Proceedings of International Conference on PPP Body of Knowledge in Preston, UK, University of Central Lancashire, Lancashire organised by. p. 55-64).
- Liu, J., Love, P.E., Davis, P.R., Smith, J. & Regan, M. 2014c. Conceptual framework for the performance measurement of public-private partnerships. *Journal of Infrastructure systems*, 21(1):04014023.
- Love, P.E., Liu, J., Matthews, J., Sing, C.-P. & Smith, J. 2015. Future proofing PPPs: Life-cycle performance measurement and building information modelling. *Automation in Construction*, 56:26-35.
- Loxley, J. 2013. Are public-private partnerships (PPPs) the answer to Africa's infrastructure needs? *Review of African Political Economy*, 40(137):485-495.
- MAAIF (Ministry of Agriculture Animal Industry and Fisheries). 2000. Plan for Modernization of Agriculture: Eradicating Poverty in Uganda. Kampala Uganda.
- MAAIF (Ministry of Agriculture Animal Industry and Fisheries). 2011. NATIONAL AGRICULTURE POLICY Kampala, Uganda.
- MAAIF (Ministry of Agriculture Animal Industry and Fisheries) (Ministry of Agriculture Animal Industry and Fisheries). 2016a. NATIONAL AGRICULTURAL EXTENSION POLICY 2016. Kampala, Uganda.
- MAAIF (Ministry of Agriculture Animal Industry and Fisheries). 2016b. National Agricultural Extension Strategy. Kampala, Uganda.
- Malinga, J. & Nampungu, P. 2015. The impact of the World Bank funded National Agricultural Advisory Services on the livelihoods of Ugandan peasant farmers including farmers with disabilities.
- Marques, R.C. & Berg, S.V. 2010. Public-Private Partnership Contracts: A Tale of Two Cities with Different Contractual Arrangements.1-20.
- Martinez, M.G., Fearne, A., Caswell, J.A. & Henson, S. 2007. Co-regulation as a possible model for food safety governance: Opportunities for public-private partnerships. *Food Policy*, 32(3):299-314.
- McDermott, J., Johnson, N., Kadiyala, S., Kennedy, G. & Wyatt, A.J. 2015. Agricultural research for nutrition outcomes-rethinking the agenda. *Food Security*, 7(3):593-607.
- Melnyk, S.A., Bititci, U., Platts, K., Tobias, J. & Andersen, B. 2014. Is performance measurement and management fit for the future? *Management Accounting Research*, 25(2):173-186.

- MFPED (Ministry of Finance Planning and Economic Development). 2009. Budget Monitoring Report: October - December 2008. Kampala Uganda.
- MoFPED (Ministry of Finance Planning and Economic Development). 2010. Public-Private Partnership Framework Policy for Uganda. Kampala, Uganda.
- MoFPED (Ministry of Finance Planning and Economic Development). 2015. The Public Private Partnership Act. Kampala, Uganda.
- MoFPED (Ministry of Finance Planning and Economic Development). Agriculture. 2017. Sector Budget Framework Paper FY 2017/18. Kampala, Uganda.
- Mouraviev, N. & Kakabadse, N. 2017. Public-private partnerships in transitional nations: policy, governance and praxis: Cambridge Scholars Publishing.
- Mouraviev, N. & Kakabadse, N.K. 2015. Legal and regulatory barriers to effective public-private partnership governance in Kazakhstan. *International Journal of Public Sector Management*, 28(3):181-197.
- Mouraviev, N., Mouraviev, N., Kakabadse, N.K. & Kakabadse, N.K. 2016. Conceptualising public-private partnerships: a critical appraisal of approaches to meanings and forms. *Society and Business Review*, 11(2):155-173.
- Mukherjee, A. & Maity, A. 2015. Public-private partnership for convergence of extension services in Indian agriculture. *Curr Sci*, 109(9):1557-1563.
- Mulgan, R. 2000. 'Accountability': An Ever-Expanding Concept? *Public administration*, 78(3):555-573.
- Mulgan, R. 2002. Public accountability of provider agencies: the case of the Australian 'Centrelink'. *International review of administrative sciences*, 68(1):45-59.
- Müller, R. & Turner, J.R. 2005. The impact of principal-agent relationship and contract type on communication between project owner and manager. *International Journal of Project Management*, 23(5):398-403.
- Mushtaq, S., Reardon-Smith, K., Cliffe, N., Ostini, J., Farley, H., Doyle, J. & Kealley, M. 2017. Can Digital Discussion Support Tools Provide Cost-Effective Options for Agricultural Extension Services? *Information Technologies & International Development*, 13:17.
- Mwesigye, F., Sserunjogi, B. & Mbowe, S. 2017. Uganda's Agricultural Sector at Crossroads: Is it a myth or a reality? Kampala Uganda.
- NAADS (National Agricultural Advisory Services). 2001. NAADS Implementation Manual. Kampala, Uganda.
- Namara, R.B. 2012. Public Policy Management Uganda's Experience in Agricultural Extension Policies. *African Journal of Public Affairs*, 5(1):1-13.

Narro, C., Roy, D., Okello, J., Avendaño, B., Rich, K. & Thorat, A. 2009. Public-private partnerships and collective action in high value fruit and vegetable supply chains. *Food Policy*, 34(1):8-15.

NCPPP (National Council of Public Private Partnerships). 2002. For the Good of the People: Using Public-Private Partnerships To Meet America's Essential Needs.

Neuman, L.W. 2007. Basics of Social Research: Qualitative and Quantitative Approaches. 2. USA: Pearson Education, Inc.

Nisar, T.M. 2013. Implementation constraints in social enterprise and community public private partnerships. *International Journal of Project Management*, 31(4):638-651.

OECD (Organisation for Economic Co-operation and Development). 2012. Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships

OECD (Organisation for Economic Co-operation and Development). 2014. PUBLIC-PRIVATE PARTNERSHIPS FOR AGRICULTURAL INNOVATION: REPORT ON THE MEETING OF THE FOOD CHAIN ANALYSIS NETWORK, 13-14 OCTOBER 2014. Paris, France.

Okoboi, G., Kuteesa, A. & Barungi, M. 2013. The impact of the National Agricultural Advisory Services Program on household production and welfare in Uganda. *African Growth Initiative. Working Paper*, 7.

Omotesho, K., Ogunlade, I. & Ayinde, O. 2015. Analysis of farmers' perception of the accountability of agricultural extension services in Oyo State, Nigeria. *Sarhad Journal of Agriculture*, 31(2):94-100.

Osei-Kyei, R. & Chan, A.P. 2015. Review of studies on the Critical Success Factors for Public-Private Partnership (PPP) projects from 1990 to 2013. *International Journal of Project Management*, 33(6):1335-1346.

Osei-Kyei, R. & Chan, A.P. 2016. Developing Transport Infrastructure in Sub-Saharan Africa through Public-Private Partnerships: Policy Practice and Implications. *Transport Reviews*, 36(2):170-186.

Paton, B. & Dorst, K. 2011. Briefing and reframing: A situated practice. *Design Studies*, 32(6):573-587.

Patton, M.Q. 2002. Qualitative Research & Evaluation Methods. 3rd. USA: Sage Publications, Inc.

Pongsiri, N. 2002. Regulation and public-private partnerships. *International Journal of Public Sector Management*, 15(6):487-495.

Poulton, C. & Macartney, J. 2012. Can public-private partnerships leverage private investment in agricultural value chains in Africa? A preliminary review. *World Development*, 40(1):96-109.

- Quinn, D.P. & Jones, T.M. 1995. An agent morality view of business policy. *Academy of Management Review*, 20(1):22-42.
- Reeves, E. 2013. 4 Mind the gap Accountability and value for money in. *Rethinking Public-Private Partnerships: Strategies for Turbulent Times*:78.
- Reigeluth, C.M. 2013. Instructional design theories and models: An overview of their current status: Routledge.
- Renda, A. & Schrefler, L. 2006. Public-private partnerships. Models and trends in the European Union. *Study requested by the European Parliament's committee on Internal Market and Consumer Protection, Brussels*.
- Reynaers, A. & Grimmelikhuijsen, S. 2015. Transparency in public-private partnerships: not so bad after all? *Public administration*, 93(3):609-626.
- Reynaers, A.M. 2014. Public values in public-private partnerships. *Public Administration Review*, 74(1):41-50.
- Roach, C.M. 2016. An Application of Principal Agent Theory to Contractual Hiring Arrangements within Public Sector Organizations. *Theoretical Economics Letters*, 6(01):28.
- Robinson, H.S. & Scott, J. 2009. Service delivery and performance monitoring in PFI/PPP projects. *Construction Management and Economics*, 27(2):181-197.
- Roehrich, J.K., Lewis, M.A. & George, G. 2014. Are public-private partnerships a healthy option? A systematic literature review. *Social Science & Medicine*, 113:110-119.
- Russell, C.S. & Nicholson, N.K. 2016. Public choice and rural development: Routledge.
- Rwakakamba, M. & Lukwago, D. 2014. The changing face of NAADS and what the entry of Uganda People's Defense Forces will mean for Uganda's agriculture. Kampala, Uganda.
- Rwamigisa, P.B., Birner, R., Mangheni, M.N. & Semana, A. 2013. How to promote institutional reforms in the Agricultural Sector? A case study of Uganda's National Agricultural Advisory Services (NAADS). *Development Policy Review*.
- Rwamigisa, P.B., Mangheni, M.N. & Birner, R. 2011. The challenge of reforming National Agricultural Extension Systems in Africa: The case of Uganda's policy reform process 1996-2011. (In. Innovations in extension and advisory service international conference proceedings organised by Nairobi - Kenya.
- Saam, N.J. 2007. Asymmetry in information versus asymmetry in power: Implicit assumptions of agency theory? *The Journal of Socio-Economics*, 36(6):825-840.
- SAIIA (South African Institute of International Affairs). 2005. Assessing Public Private Partnership in Africa.

- Saliu, J.O., Obine, P.C. & Audu, S.I. 2009. Trends in agricultural extension services in Africa: Option for new approaches. *Journal of Agricultural Extension and Rural Development*, 1 (3):071-076.
- Samii, R., Van Wassenhove, L.N. & Bhattacharya, S. 2002. An innovative public–private partnership: new approach to development. *World Development*, 30(6):991-1008.
- Saunders, M.N., Lewis, P. & Thornhill, A. 1997. *Research Methods for Business*. Grear Birtain: Pearson Professional Limited.
- Schutt, R.K. 2011. *Qualitative Data Analysis. Investigating the Social World: The Process and Practice of Research*. 7th ed: Sage Publications. p. 320 - 357).
- Scribner, M. 2011. The Limitations of Public-Private Partnerships Recent Lessons from the Surface Transportation and Real Estate Sectors. *Issue Analysis, Competitive Enterprise Enstitute*.
- Sekaran, U. 2003. *Research Methods for Business A skill Building Approach*. 4th. United States of America: John Wiley & Sons, Inc.
- Shankman, N.A. 1999. Reframing the debate between agency and stakeholder theories of the firm. *Journal of Business Ethics*, 19(4):319-334.
- Shaoul, J., Stafford, A. & Stapleton, P. 2012. Accountability and corporate governance of public private partnerships. *Critical Perspectives on Accounting*, 23(3):213-229.
- Shediak, R., Abouchakra, R., Hammami, M. & Najjar, M.R. 2008. Public-Private Partnerships: A New Catalyst for Economic Growth. *Booz & Company*.
- Shukla, R., Sharma, S. & Thumar, V.M. 2016. Role and importance of public private partnerships in agricultural value chain and infrastructure. *International Journal of Commerce and Business Management*, 9(1):113-118.
- Smith, W. 1997. Utility regulators: the independence debate. *Public Policy for the private sector*, 127(1).
- Spielman, D.J., Hartwich, F. & Grebmer, K. 2010. Public–private partnerships and developing-country agriculture: Evidence from the international agricultural research system. *Public Administration and Development*, 30(4):261-276.
- Stafford, A. & Stapleton, P. 2017. Examining the Use of Corporate Governance Mechanisms in Public–Private Partnerships: Why Do They Not Deliver Public Accountability? *Australian Journal of Public Administration*, 76(3):378-391.
- Swanson, B.E. & Rajalahti, R. 2010. Strengthening agricultural extension and advisory systems.
- Swanson, B.E. & Samy, M.M. 2002. Developing an extension partnership among public, private, and nongovernmental organizations. *Journal of International Agricultural and Extension Education*, 9(1):5-10.

- Teisman, G.R. & Klijn, E.H. 2002. Partnership arrangements: governmental rhetoric or governance scheme? *Public Administration Review*, 62(2):197-205.
- Tellis, W. 1997. Application of Case Study Methodology. (3).
- Thomas Ng, S. & Wong, Y.M. 2007. Payment and audit mechanisms for non private-funded PPP-based infrastructure maintenance projects. *Construction Management and Economics*, 25(9):915-923.
- Thoring, K. & Müller, R.M. 2011. Understanding the Creative Mechanisms of Design Thinking: An Evolutionary Approach. *ResearchGate*:1-11.
- Tracey, M.W. & Baaki, J. 2014. Design, designers, and reflection-in-action. Design in educational technology. Springer. p. 1-13).
- Turner, J.R. 2004. Farsighted project contract management: incomplete in its entirety. *Construction Management and Economics*, 22(1):75-83.
- UNECE (United Nations Economic Commission for Europe). 2008. GUIDEBOOK ON PROMOTING GOOD GOVERNANCE IN PUBLIC-PRIVATE PARTNERSHIPS. Geneva - Switzerland: UNITED NATIONS PUBLICATIONS. Date of access: 10th June 2017.
- Unzima, J. 2017. Gen. Ali blames Extension workers for poor crop yields. *The New Vision*.
- USDOT. Transportation, D.O. 2014. Types of Public-Private Partnerships (P3s). United States.
- Vadali, N., Tiwari, A.P. & Rajan A, T. 2014. Effect of the Political Environment on Public Private Partnership Projects: Evidence from Road Projects. *Journal of Infrastructure Development*, 6(2):145-165.
- Van Den Hurk, M. & Verhoest, K. 2016. The challenge of using standard contracts in public-private partnerships. *Public Management Review*, 18(2):278-299.
- Van der Waltd, G. 2013. Towards a typology of models in Public Administration and Management as field of scientific inquiry.
- Verger, A. & Moschetti, M. 2017. Public-Private Partnerships as an Education Policy Approach: Multiple Meanings, Risks and Challenges.
- Verhoest, K., Petersen, O.H., Scherrer, W. & Soecipto, R.M. 2015. How do governments support the development of public private partnerships? Measuring and comparing PPP governmental support in 20 European countries. *Transport Reviews*, 35(2):118-139.
- Verweij, S., Teisman, G.R. & Gerrits, L.M. 2017. Implementing Public-Private Partnerships: How Management Responses to Events Produce (Un) Satisfactory Outcomes. *Public Works Management & Policy*, 22(2):119-139.

- Wang, R. & Lv, Y. 2017. Incentive Mechanisms for Tacit Knowledge-Sharing in Master-Apprentice Pattern Based on The Principal-Agent Theory. (In. MATEC Web of Conferences organised by: EDP Sciences. p. 05005).
- Warner, M., Kahan, D. & Lehel, S. 2008. Market-oriented agricultural infrastructure: appraisal of public-private partnerships.
- WB (The World Bank). 2017a. PPP Arrangements / Types of Public-Private Partnership Agreements. <https://ppp.worldbank.org/public-private-partnership/agreements> Date of access: 10th January 2017 2017.
- WB (The World Bank). 2017b. Regulation of Sectors and Regulatory Issues Impacting PPPs. https://ppp.worldbank.org/public-private-partnership/legislation-regulation/regulatory#what_is_regulation Date of access: 26/06/2017 2017.
- Wettenhall, R. 2003. The rhetoric and reality of public-private partnerships. *Public Organization Review*, 3(1):77-107.
- Wilda, C., Mining, C. & Käch, R. 2014. Public-Private Partnership in Agriculture. University of Applied Sciences and Arts Northwestern Switzerland.
- Willems, T. 2014. Democratic accountability in public-private partnerships: The curious case of Flemish school infrastructure. *Public administration*, 92(2):340-358.
- Windahl, C. 2017. Market sense-making in design practice: exploring curiosity, creativity and courage. *Journal of Marketing Management*, 33(3-4):280-291.
- Wright, P., Mukherji, A. & Kroll, M.J. 2001. A reexamination of agency theory assumptions: extensions and extrapolations. *The Journal of Socio-Economics*, 30(5):413-429.
- Wu, J., Liu, J., Jin, X. & Sing, M.C. 2016. Government accountability within infrastructure public-private partnerships. *International Journal of Project Management*, 34(8):1471-1478.
- Yang, Y., Hou, Y. & Wang, Y. 2013. On the development of public-private partnerships in transitional economies: An explanatory framework. *Public Administration Review*, 73(2):301-310.
- Yazan, B. 2015. Three approaches to case study methods in education: Yin, Merriam, and Stake. *The Qualitative Report*, 20(2):134-152.
- Yescombe, E.R. 2007. Public-Private Partnerships: Principles of Policy and Finance. Oxford, UK: Elsevier Ltd.
- Yong, H.K. 2010. Public-private partnerships policy and practice: a reference guide: Commonwealth Secretariat.
- Ypi, L. 2016. Political commitment and the value of partisanship. *The American Political Science Review*, 110(3):601.

Yuan, J., Zeng, A.Y., Skibniewski, M.J. & Li, Q. 2009. Selection of performance objectives and key performance indicators in public–private partnership projects to achieve value for money. *Construction Management and Economics*, 27(3):253-270.

Annexure 1: Research Instruments

SEMI-STRUCTURED QUESTIONNAIRE TO NAADS SECRETARIAT AND DISTRICT OFFICIALS

My name is Bruce Kisitu pursuing a PhD in Public Management and Governance at North-West University, South Africa. My thesis is entitled “**Public Private Partnership challenges in the national agricultural extension system; Towards a new model**”. This study aims at establishing the challenges that affected the principal agent relationship between the NAADS and the private extension workers which later led to the abolishment of the private extension workers. The participants of this study include management at the NAADS secretariat, district administrative officers, service providers and farmers. You have been identified as one of the respondents and kindly requesting for your time and cooperation to respond to the questions in this semi-structured questionnaire. Please note that this interview is voluntary and you may withdraw at any time especially if you feel the study is causing any mental, emotional or physical harm. The researcher will uphold and guarantee confidentiality and anonymity (use of pseudo names on subjects). The information gathered from the participants will be used for academic purposes only and the responses will be kept for the duration stipulated by the University. The interview will take 60 minutes to complete. This is therefore to re-enforce the request for you to participate in this study.

Your participation will be greatly appreciated.

NAADS Secretariat

1. What is the current agricultural extension model that the NAADS program is using to support farmers in Uganda? Probe to establish the key players?
2. What role does the private sector play in the current government agricultural extension system?
3. What challenges does government face today in providing extension services to farmers?
4. In 2001, the NAADS program contracted private extension workers to support farmers with advisory services, how would you describe/define this model?
5. Why did the NAADS project adopt this model where private extension workers are involved in extension services under the NAADS program?
6. What policy and regulatory framework guided the (identification, development and implementation) relationship between the NAADS and the private extension workers?
7. Did you identify any policy gaps in planning and implementation of this PPP?

8. How did you ensure that the service providers serve more farmers especially those in remote areas?
9. Who was responsible for monitoring the relationship between NAADS and the extension workers?
10. What mechanisms were used to monitor the performance of the private extension workers? Probe if monitoring checked any deviations? What were the performance indicators for measuring the success of private extension workers?
11. What mechanisms were used for learning and knowledge sharing and adoption of innovative solutions and approaches?
12. How did you manage accountability for the programme? Probe for the accountability framework, who was accounting, to whom they were accounting and the flow of information
13. What mechanisms were used to ensure information flow from the secretariat to the service providers and vice versa?
14. What were the benefits of engaging the private sector in supporting extension services in Uganda?
15. What models currently exist that may guide the development of an appropriate PPP for agricultural extension services for Uganda?
16. What caused the departure between the NAADS and the private extension workers?
17. What are the policy recommendations by cabinet that led to the abolishment of Private service providers?
18. What is government's plan in building a more sustainable model for agricultural extension in Uganda?
19. In your view, what would be an ideal PPP for agricultural extension in Uganda?

SEMI-STRUCTURED QUESTIONNAIRE TO PRIVATE EXTENSION WORKERS

My name is Bruce Kisitu pursuing a PhD in Public Management and Governance at North-West University, South Africa. My thesis is entitled **“Public Private Partnership challenges in the national agricultural extension system; Towards a new model”**. This study aims at establishing the challenges that affected the principal agent relationship between the NAADS and the private extension workers which later led to the abolishment of the private extension workers. The participants of this study include management at the NAADS secretariat, district administrative officers, service providers and farmers. You have been identified as one of the respondents and kindly requesting for your time and cooperation to respond to the questions in this semi-structured questionnaire. Please note that this interview is voluntary and you may withdraw at any time especially if you feel the study is causing any mental, emotional or physical harm. The researcher will uphold and guarantee confidentiality and anonymity (use of pseudo names on subjects). The information gathered from the participants will be used for academic purposes only and the responses will be kept for the duration stipulated by the University. The interview will take 60 minutes to complete. This is therefore to re-enforce the request for you to participate in this study.

Your participation will be greatly appreciated.

1. In 2001 – 2008, you were contracted as a private extension service provider to support the NAADS program. What role did you play as a private service provider supporting the NAADS program? Identify the main commitments from each party?
2. Did you support the program as an individual or company? Probe for details of the company (registration) and the qualification
3. What was the nature of the performance contracts that you signed with NAADS? Probe for how long they signed a contract with NAADS, area of support e.g. how many farmers were assigned to them
4. What were some of the policy gaps in planning and implementation of the service contracts? Probe for any gaps in planning and Implementation of the project.
5. How were the gaps above addressed?
6. How did you determine the farmers you supported? Probe whether there was an incentive for reaching the last mile. Probe on average how many times they visited the farmers assigned to them and whether it is sufficient.
7. How many farmers can an extension agent effectively support? On average, how many times should a farmer ideally be visited during the cropping calendar? Probe how many times a month (Split based on Crop Vs animal)

8. What were your performance indicators? Probe to establish whether they were realistic or not
9. What innovative solutions did you develop that would enhance the delivery of extension services on behalf of the NAADS program?
10. What were the benefits of your support to the NAADS program?
11. What challenges did you experience in supporting farmers with extension services under the NAADS program? Probe to establish whether the challenges were inclined towards NAADS secretariat or the farmers.
12. How did you ensure proper accountability for your tasks and responsibilities? Probe for the accountability framework, who was accounting, to whom they were accounting and the flow of information. Also probe for accountability to farmers
13. Why the services of the private extension service providers abolished by government?
14. What are some of the PPP models in extension that you know of and may be implemented in agricultural extension in Uganda?
15. In your view, how can government or the NAADS improve the relationship with private extension workers? Respond should propose a model that could promote a PPP between Government, Private sector and the farmers.

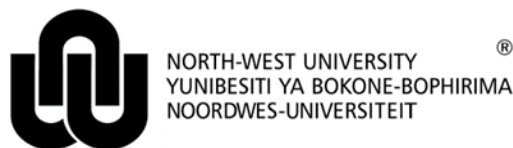
SEMI-STRUCTURED QUESTIONNAIRE TO FARMERS

My name is Bruce Kisitu pursuing a PhD in Public Management and Governance at North-West University, South Africa. My thesis is entitled **“Public Private Partnership challenges in the national agricultural extension system; Towards a new model”**. This study aims at establishing the challenges that affected the principal agent relationship between the NAADS and the private extension workers which later led to the abolishment of the private extension workers. The participants of this study include management at the NAADS secretariat, district administrative officers, service providers and farmers. You have been identified as one of the respondents and kindly requesting for your time and cooperation to respond to the questions in this semi-structured questionnaire. Please note that this interview is voluntary and you may withdraw at any time especially if you feel the study is causing any mental, emotional or physical harm. The researcher will uphold and guarantee confidentiality and anonymity (use of pseudo names on subjects). The information gathered from the participants will be used for academic purposes only and the responses will be kept for the duration stipulated by the University. The interview will take 60 minutes to complete. This is therefore to re-enforce the request for you to participate in this study.

Your participation will be greatly appreciated.

1. What enterprises are you currently engaged in?
2. What is your main source of extension services?
3. How useful are those sources of information? Probe if government services alone are sufficient to effectively support farmers' enterprises?
4. In 2001 – 2008, you were supported by the private extension workers, what kind of support did you receive from the Private extension workers?
5. How useful were the services provided by the service providers? Probe for the number of visits received.
6. What were the challenges in interacting with the private extension workers?
7. What challenges did you experience in planning and Implementation of the NAADS program?
8. How was monitoring of private service providers conducted? Probe who was conducting the monitoring.
9. What role did you play in the accountability of the programme? Probe who was accounting to farmers and to whom they were accounting.
10. Propose a model that could promote a PPP between Government, Private sector and the farmers.

Annexure 2: Registration of Title



Web: <http://www.nwu.ac.za>

Higher Degree Administration
Tel: 016 910 3033
Email: Jenna.Wilson@nwu.ac.za

03 October 2017

Dear Mr BM Kisitu (28078780)

REGISTRATION OF TITLE

At the Faculty Board, Humanities meeting, your title was approved as follows:

Public Private Partnership (PPP) challenges in national agricultural extension systems in Uganda: Towards a new model

The above-mentioned title may under **no circumstances** be changed without consulting your supervisor/promoter and obtaining the approval from the Faculty Board.

Your attention is drawn to the following publications / web addresses:

- A Rules:
http://www.nwu.ac.za/sites/www.nwu.ac.za/files/files/i-governance-management/policy/7P-Arules2015_e_1.pdf
- Manual for Postgraduate Studies:
<http://www.nwu.ac.za/sites/www.nwu.ac.za/files/files/i-research-support/Manuals/ICRI/2016-04-06%20ICRI%20Manual%20for%20M%20and%20D%20students.pdf>

We wish you a pleasant and successful period of study.

Yours sincerely

Ms J Wilson
FOR REGISTRAR

Original details: (22989064) C:\Users\22989064\Desktop\Labels and Templates\Title registration.docm
3 Oct 2017

File reference: 7.1.11.1

Annexure 3: Central Committee for Advanced Degrees (C-CAD) Letter



PO Box 1174, Vanderbijlpark
South Africa 1900

Tel: 016 910-3111
Fax: 016 910-3116
Web: <http://www.nwu.ac.za>

Basic Sciences

Central Committee for Advanced Degrees (C-CAD) Tel: 0169103483
Email: charmaine.lekonyane@nwu.ac.za

22 August 2016

Mr K Bruce (Review 18)

Student no: 28078780

Research title as approved by the CAD committee:

Public Private Partnership (PPP) challenges in national agricultural extension systems in Uganda: Towards a new model

Dear Mr Bruce

This letter serves to confirm that your PhD-research proposal has been approved by the Central Committee of Advanced Degrees in the School of Basic Sciences.

Committee members involved:

Present (Internal reviewers)	External reviewers (non-CAD reviewers)
Dr Herman van der Elst	
Prof Elize S van Eeden	

The ethics application is referred to the:

* Research Ethics Committee- BaSSREC: _X_.

* Research Ethics Committee-HHREC: .

You have received the details on the procedure that you will have to follow to submit to the Ethics Committee as indicated. For the CAD-records, please inform Mrs C Lekonyane (CAD-secretariat) when the ethical submission has been successfully completed and approved.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Elize van Eeden', is written over the typed name.

Prof Elize van Eeden

Chairperson: Committee of Advanced Degrees Basic Sciences

Annexure 4: Ethics Approval Certificate of Study



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom,
South Africa, 2520

Tel: (018) 299-4900 Faks:

(018) 299-4910

Web: <http://www.nwu.ac.za>

**Institutional Research Ethics
Regulatory Committee**

Tel: +27 18 299 4849 Email :

Ethics@nwu.ac.za

ETHICS APPROVAL CERTIFICATE OF STUDY

Based on approval by the **Basic and Social Sciences Research Ethics Committee (BaSSREC)** on **04/11/2016** after being reviewed at the meeting held on **03/11/2016**, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby **approves** your study as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Project title:																															
Public Private Partnership (PPP) challenges in national agricultural extension systems in Uganda: Towards a new model																															
Project Leader/Supervisor: Prof Costa Hofisi																															
Student: Kisitu Bruce																															
Ethics number:	<table border="1"> <tr> <td>N</td><td>W</td><td>U</td><td>-</td><td>HS</td><td>-</td><td>2</td><td>0</td><td>1</td><td>6</td><td>-</td><td>0</td><td>1</td><td>3</td><td>5</td> </tr> <tr> <td colspan="4">Institution</td> <td colspan="4"></td> <td colspan="4">Year</td> <td colspan="3">Project Number</td> </tr> </table>	N	W	U	-	HS	-	2	0	1	6	-	0	1	3	5	Institution								Year				Project Number		
N	W	U	-	HS	-	2	0	1	6	-	0	1	3	5																	
Institution								Year				Project Number																			
Application Type: Original project																															
Commencement date: 2016-11-04	Expiry date: 2019-11-04																														
Risk:	Low																														

Special conditions of the approval (if applicable):

- x Translation of the informed consent document to the languages applicable to the study participants should be submitted to the BaSSREC (if applicable).
- x Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the BaSSREC. Ethics approval is required BEFORE approval can be obtained from these authorities.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- x The project leader (principle investigator) must report in the prescribed format to the NWU-IRERC via BaSSREC:
 - annually (or as otherwise requested) on the progress of the study, and upon completion of the project
 - without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project. - Annually a number of projects may be randomly selected for an external audit.
- x The approval applies strictly to the proposal as stipulated in the application form. Would any changes to the proposal be deemed necessary during the course of the study, the study leader must apply for approval of these changes at the BaSSREC. Would there be deviation from the study proposal without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- x The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC via BaSSREC and new approval received before or on the expiry date.
- x In the interest of ethical responsibility the NWU-IRERC and BaSSREC retains the right to:
 - request access to any information or data at any time during the course or after completion of the study;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.
 - withdraw or postpone approval if:
 - any unethical principles or practices of the project are revealed or suspected,
 - it becomes apparent that any relevant information was withheld from the BaSSREC or that information has been false or misrepresented, · the required annual report and reporting of adverse events was not done timely and accurately, · new institutional rules, national legislation or international conventions deem it necessary.
- x BaSSREC can be contacted for further information or any report templates via Charmaine.Lekonyane@nwu.ac.za or 018 210 3483.

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC or BaSSREC for any further enquiries or requests for assistance.

Yours sincerely

Prof LA
Du Plessis

Digitally signed by

Prof LA Du Plessis

Date: 2017.06.23

07:34:01 +02'00'

Prof Linda du Plessis

Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

PO Box 1174,
Vanderbijlpark South
Africa, 1900

**Basic and Social Sciences Research
Ethics
Committee**
Tel: +27(16) 910-3483
Web: <http://www.nwu.ac.za>
Email:
Charmaine.lekonyane@nwu.ac.za

4 November 2016

Dear Mr Kisitu Bruce and Prof Costa Hofisi

ETHICS APPLICATION: NWU-HS-2016-0135

Application Type: Original project

Study Programme: PhD Public Administration and Management

*Public Private Partnership (PPP) challenges in national agricultural extension systems
in
Uganda: Towards a new model*

Risk Level: Low

Thank you for a well-presented application and the requested additional material!

During the meeting of the Basic Sciences Research Ethics Committee (BaSSREC) on **3 November 2016**, the committee ratified the approval of above ethics application in view of the additional information submitted. There is no risk and the protocol is acceptable.

A certificate will be issued for the duration maximum of three (3) years during the applicant's period of study and communication will be kept for progress tracking purposes.

Congratulations and best of wishes with the completion of your study.

With best wishes,

Prof Jaco Hoffman
BaSSREC – Chairperson

Ethics Expiry Date: 4 November 2019

Annexure 5: Gate Keepers letters



Ministry of Agriculture, Animal Industries and Fisheries
National Agricultural Advisory Services
Plot 5 Kyadondo Road, Legacy Towers, Block B, Nakasero
P.O. Box 25235, Kampala - Uganda



September 7, 2016

Dear Professor Hofisi Costa, North West University, South Africa

Re: Request to conduct PHD Research in NAADS (Program Areas of Arua, Kabale and Tororo)

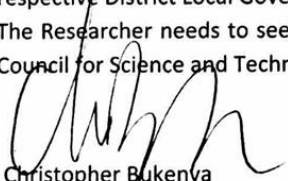
Reference to your letter dated August 29, 2016, introducing Mr. Kisitu Bruce and requesting the NAADS Secretariat for approval of his study in the proposed NAADS Program areas.

The NAADS Secretariat has considered your request and would like you to note the following:

- i. Following the recent reforms in the National agricultural extension system, the NAADS mandate was changed from provision of Agricultural Advisory Services to provision of agricultural inputs to farmers.
- ii. Subsequently, the NAADS programme structures in the Local Governments (both District and Sub county levels) were phased out.
- iii. However, in executing its current mandate the NAADS Secretariat works with the respective District Local Government through the Chief Administrative Officers at the administrative level and the District Production Officers at the technical level.

Accordingly, while the NAADS Secretariat has no objection to your request for Mr. Kisitu to conduct his study in the proposed NAADS Program areas, I wish to advise as follows:

- i. The Researcher needs to seek endorsement of the Chief Administrative Officers for the respective District Local Governments
- ii. The Researcher needs to seek approval of his research study from the Uganda National Council for Science and Technology


Dr. Christopher Bukenya

AG. Executive Director

CC: CAOs: Arua, Kabale, Tororo DLGs

Tel: +256-414/312-345440, 345065, 345066 Toll Free 0800-230100 or 0414-345060 Fax: +256 414 347843

Email: info@naads.or.ug , Website: www.naads.or.ug

"Promoting profitable agricultural production"



IN ANY CORRESPONDENCE ON THIS
SUBJECT PLEASE QUOTE

Our Ref: **EDU 167/284/01**



THE REPUBLIC OF UGANDA

OFFICE OF THE
CHIEF ADMINISTRATIVE OFFICER
KABALE DISTRICT LOCAL GOVERNMENT
P O BOX 5
KABALE.

Email: caokdlg@yahoo.com

19th October, 2016

Professor Hofisi Costa
North West University
South Africa

**REQUEST TO CONDUCT PHD RESEARCH IN NAADS (PROGRAM AREA-KABALE)
IN RESPECT FOR MR. KISITU BRUCE**

I would like to acknowledge receipt of the letter dated 7th September 2016 addressed to you by the Executive Director NAADS Secretariat regarding the above subject.

This is to inform you that Kabale District Local Government Department of Production and Marketing where NAADS Program operates has no objection to the request of your Student Mr. Kisitu Bruce to conduct his study in the proposed NAADS area in Kabale District.

While conducting his research study, he will be in constant touch with the Head of Department of Production and Marketing- Mr. Mwebesa Beda. His contact phone numbers are; +256772358052 or +256759358052.

By copy of this letter the Head of Department of Production and Marketing is accordingly informed.

MATSIKO MUTUNGWIRE ABERT
CHIEF ADMINISTRATIVE OFFICER - KABALE



Copy to:

1. The Executive Director NAADS Secretariat – Kampala
2. The District Chairperson – **Kabale**
3. The Resident District Commissioner – **Kabale**
4. The District Production Officer – **Kabale**
5. Mr. Kisitu Bruce - **Research Student**

TELEPHONE: CAO..... 045 4445 247
OFFICE FAX: CAO..... 045 4445340
E-mail: tororolga@utonline.org
URL: http://www.tororo.go.ug



TORORO DISTRICT LOCAL GOVERNMENT
P. O. BOX 1
TORORO,
UGANDA

IN CASE OF ANY CORRESPONDENCE ON
THIS SUBJECT PLEASE QUOTE REF:

CR/164/8

THE REPUBLIC OF UGANDA

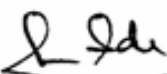
14th October, 2016

Professor Hofisi Costa,
North West University,
South Africa.

**RE: RECOMMENDATION FOR AN ENDORSEMENT TO CONDUCT
RESEARCH IN TORORO DISTRICT**

I am in receipt of a letter from the NAADS Secretariat and another from your Institution requesting the Local Government to endorse Mr. Kisitu Bruce to conduct his PHD research in the NAADS Programme in Tororo District with effect from January-April 2017.

This is to inform you that Tororo District Local Government has no objection for Mr. Kisitu Bruce to conduct his research in the District.


Sande Kyomya Christopher

CHIEF ADMINISTRATIVE OFFICER/TORORO



- cc. The Executive Director, NAADS Secretariat, Kampala.
cc. The Principal Personnel Officer, Tororo.
cc. The District Production Officer, Tororo.

TELEPHONE:
Mob: CAO 0772 551353
D/CAO 0772 646184
Secretary 0782 930348
Email: info@arua.go.ug
Website: www.arua.go.ug



OFFICE OF THE
CHIEF ADMINISTRATIVE OFFICER
ARUA DISTRICT LOCAL GOVERNMENT
PLOT NO. 2 – 6 AVENUE ROAD
P.O. BOX 1
ARUA

In any correspondence on
this subject please quote No: CR/108/1

Date: 22nd September 2016

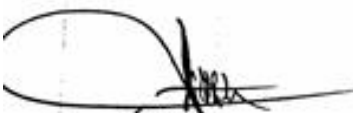
✓ Professor Hofisi Costa
North West University
South Africa

REQUEST TO CONDUCT PHD RESEARCH IN NAADS PROGRAM AREA OF ARUA DISTRICT

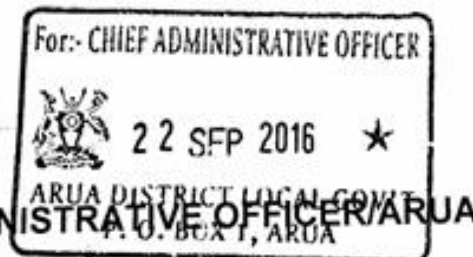
Reference is made to the above captioned matter.

I hereby write to you in response to a correspondence received from the NAADS Secretariat, Ministry of Agriculture, Animal Industry and Fisheries clearing Mr. Kisitu Bruce to undertake a research in the NAADS Program area of Arua District.

The purpose of this communication is therefore, to grant the Researcher a **No objection** to undertake this exercise after the research is cleared by the Uganda National Council for Science and Technology.


Uma Charles

FOR: CHIEF ADMINISTRATIVE OFFICER/ARUA



CC: The Executive Director
NAADS – Kampala
CC: The District Production Coordinator/Arua



Uganda National Council for Science and Technology
(Established by Act of Parliament of the Republic of Uganda)

Our Ref: A 547

20th February 2017

Mr. Bruce Mark Kisitu
Principal Investigator
Uganda Management Institute
Kampala

Re: Research Approval:

Public Private Partnership (PPP) Challenges in National Agricultural Extension Systems in Uganda; Towards a New Model

I am pleased to inform you that on **27/01/2017**, the Uganda National Council for Science and Technology (UNCST) approved the above referenced research project. The Approval of the research project is for the period **27/01/2017** to **27/01/2018**.

Your research registration number with the UNCST is **A 547**. Please, cite this number in all your future correspondences with UNCST in respect of the above research project.

As Principal Investigator of the research project, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the research protocol or the consent form (where applicable) must be submitted to the designated Research Ethics Committee (REC) or Lead Agency for re-review and approval prior to the activation of the changes. UNCST must be notified of the approved changes within five working days.
3. For clinical trials, all serious adverse events must be reported promptly to the designated local REC for review with copies to the National Drug Authority.
4. Unexpected events involving risks to research subjects/participants must be reported promptly to the UNCST. New information that becomes available which alters the risk/benefit ratio must be submitted promptly for UNCST review.
5. Only approved study procedures are to be implemented. The UNCST may conduct impromptu audits of all study records.
6. A progress report must be submitted electronically to UNCST within four weeks after every 12 months. Failure to do so may result in termination of the research project.

Below is a list of documents approved with this application:

	Document Title	Language	Version	Version Date
1.	Research Proposal	English	2.0	May 2016
2.	Semi – Structured Questionnaire to Farmers	English	1.0	May 2016
3.	Semi – Structured Questionnaire to Extension Workers	English	1.0	May 2016
4.	Semi – Structured Questionnaire to NAADS Secretariat and District Officials	English	1.0	May 2016
5.	Informed Consent Document	English	1.0	May 2016

Yours sincerely,

Hellen N. Opolot

for: Executive Secretary

UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Copied to: Chair, Gulu University, Research Ethics Committee

LOCATION/CORRESPONDENCE

Plot 6 Kimera Road, Ntinda
P. O. Box 6884
KAMPALA, UGANDA

COMMUNICATION

TEL: (256) 414 705500
FAX: (256) 414-234579
EMAIL: info@uncst.go.ug
WEBSITE: <http://www.uncst.go.ug>



KENNIS TER INDIENING / NOTICE OF SUBMISSION

Heg asseblief 'n afskrif van u ID-dokument aan. Kwalifikasie:
Please attach a copy of your ID Qualification: ~~MA/MEd/MSc/PhD~~.....

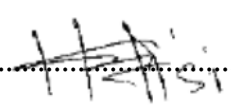
Titel, volle name en van:
Title, first names and surname: Mr. Bruce Kisitu Mark

Adres (korrespondensie):
Address (correspondence):
Uganda Management Institute
Plot 44-52 Jinja Road
P.O. Box 20131 Kampala, Uganda

E-posadres/E-mail address: kisitub@gmail.com

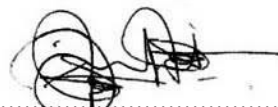
Tel (k/u): Universiteitsnr:
Tel (o/h): +256772 426799..... *University no: 28078780*

Promotor/Studieleier:..... Handtekening:

Promoter/Supervisor: Prof. Hofisi Costa Signature: 

Titel:
Title: PUBLIC PRIVATE PARTNERSHIP (PPP) CHALLENGES IN NATIONAL AGRICULTURAL EXTENSION SYSTEMS IN UGANDA: TOWARDS A NEW MODEL

Beoogde indieningsdatum:
Intended submission date: 13th November 2017

Handtekening:  Datum:
Signature: Date: 27th July 2017

Kennis moet drie maande voor indiening gegee word aan Akademiese Administrasie.
Notice must be given to Academic Administration three months prior to submission.

Kontak die M en PhD-kantoor vir u navorsingstitel soos dit op rekord vermeld word, asook vir die aantal kopieë wat vir eksaminering ingedien moet word.
Contact the M and PhD Office for the registered title as well as the number of copies to be submitted for examination.

Indien u nie indien, soos u kennis gegee het, moet u weer drie maande voor die volgende indieningsdatum kennis gee.
Should you fail to submit as you intended doing, you will have to give notice three months prior to the next submission date.

Annexure 7: Sample Participation Agreement for Districts

THE REPUBLIC OF UGANDA

THE NATIONAL AGRICULTURAL ADVISORY SERVICES PROGRAMME (NAADS)

DISTRICT PARTICIPATION AGREEMENT BETWEEN

THE NATIONAL AGRICULTURAL ADVISORY SERVICES (NAADS)
AND

..... DISTRICT LOCAL GOVERNMENT
FOR THE USE OF FUNDS IN THE NATIONAL AGRICULTURAL ADVISORY SERVICES
(NAADS) CONDITIONAL GRANT
.....

This memorandum is made this.....day of

BETWEEN

THE GOVERNMENT OF THE REPUBLIC OF UGANDA, represented by the NAADS
BOARD

(hereinafter referred to as “Government “)

AND

DISTRICT LOCAL GOVERNMENT, ...
represented by the Chief Administrative Officer on the other part. (Hereinafter referred to as
“the District”)

1. INTRODUCTION

1.1 WHEREAS Government is alleviating Poverty through the funding of the Implementation of the Poverty Eradication Action Plan (PEAP) and is providing funds to the District through the Poverty Action Fund for the implementation of core elements of the PEAP. And

1.2 WHEREAS, Through the said Poverty Action Fund, Government is providing funds to the District specifically for the Agricultural sector in the form of the NAADS Grant (hereinafter referred to as “the Grant”), the specific objectives of which are set out in the for the Programme Implementation Manual of the NAADS Grant (hereinafter referred to as “the Grant Guidelines”) and forming part of this PARTICIPATION AGREEMENT. NOW THIS PARTICIPATION AGREEMENT witnessed as follows:

2. RESPONSIBILITIES OF THE DISTRICT

2.0 The District shall:

2.1 Make every reasonable effort to prepare costed Workplans for NAADS activities .

2.2 Make reasonable effort to implement all activities as specified in the Workplans above

2.3 Implement the Workplan, plan and report on the use of funds, monitor activities and post public notices in accordance with the Grant Guidelines, and the General Guidelines for the Planning and Operation of Conditional Grants under the Poverty Action Fund (hereinafter referred to as the “General Guidelines”).

- 2.4 Submit a Quarterly Progress Report, including Financial Reports, Cumulative Progress Report and Budget Request to Government, as specified in the Grant Guidelines.
- 2.5.1 If it encounters problems in implementation of the Workplan, seek technical assistance from Government or any other party in a position to provide the necessary support and on receipt of technical assistance, act on this assistance, and make efforts to overcome any further problems in implementation. If the District does not act on technical advice from the Government, it must give reasons for the same.
- 2.5.2 Agree to the de-layering and retooling programme for the existing Field Extension Workers in the participating Sub-Counties and the subsequent arrangement for the Service Providers.
- 2.5.3 Ensure that it provides 5% co- financing to NAADS programme. The District contribution shall be transferred, on quarterly basis, to NAADS Account during each Financial Year.

2.6 *Minor Changes in the Workplan*

- 2.6.1 In the event of differing circumstances and priorities, the District may reallocate up to 10% of the District Annual Grant to different NAADS eligible activities **without** seeking the prior approval of Government.
- 2.6.2 In the event of change of less than 10% of the District Annual Grant, the District can change activities up to the value of the change in the annual budget without seeking approval prior of Government.
- 2.6.3 The District will write to and inform Government (the Executive Director, NAADS Secretariat, copied to the Permanent Secretaries, MAAIF and MFPED) of all changes in the Workplan
- 2.6.4 Once successive changes to the Workplan have resulted in a **cumulative** shift in resources of more than 10% within the annual budget of a conditional grant, Districts will write to Government (to the Executive Director, NAADS Secretariat copied to the Director Budget, MFPED & Permanent Secretary, MAAIF) requesting confirmation of the acceptability of the changes before further minor changes in the Workplan can be enacted.
- 2.6.5 If, under clause 2.6.4, no response has been received in writing within 30 days from the Government, Districts may undertake further minor changes to workplans.

2.7 *Major Changes in the Workplan*

- 2.7.1 If the District requires to make changes in activities within a workplan which require a reallocation of resources greater than 10% within the Grant, it will before implementing the changes, write to Government (to the Executive Director, NAADS Secretariat, copied to the Director Budget, MFPED and the Permanent Secretary, MAAIF) seeking authority to implement the changes. Only major shifts in the priorities of the District due to external factors (e.g. epidemics, drought) will result in alterations being approved.
- 2.7.2 If there is a change in the annual budget greater than 10%, the District shall make changes to the Workplan and, before implementing the changes, it will write to the Central Government (to the Executive Director, NAADS Secretariat, copied to the Director Budget, MFPED and the Permanent Secretary, MAAIF) seeking authority to implement the changes. Only major shifts in the priorities of the District due to external factors (e.g. epidemic, drought) will result in alterations being approved.

2.7.3 If under clauses 2.7.1 or 2.7.2 no response has been received in writing within 30 days from the Government, Districts may commence implementation of the changed activities.

3. RESPONSIBILITIES OF CENTRAL GOVERNMENT

3.0 Central Government shall:

3.1 Fund the implementation of NAADS eligible activities in the workplan and the implementation of any other activities resulting from changes in the Workplan, provided the District has followed the procedures for altering the Workplan set out under clauses 2.6 and 2.7 of this District Participation Agreement, and has acquired the necessary authority. The receipt of the required reports on time will trigger timely release of funds.

3.2 Analyse all progress reports and Budget Requests submitted by the District, considering each Budget Request on its own merit and if the funds released are below the Budget Request, it gives reasons for the same in writing.

3.3 Provide District with technical assistance, given any reasonable request from the District within 30 days of receipt of the request

3.4 Monitor the activities of the District, and provide the District with the technical advice on the basis of observations from the monitoring

3.5 Provide technical assistance for the preparation of workplans for each Financial Year.

3.6 Inform the District of any relevant changes in policy, guidelines, and budget allocations

3.7 If Government fails to provide technical assistance, or fails to process Budget Requests in a timely manner, without due reason, the Ministry of Finance, Planning & Economic Development will withhold release of NAADS funds for monitoring and accountability to the Government. If the Government continues to fail in its aforementioned responsibilities, the Poverty Action Fund Committee, at the subsequent Quarterly Meetings, will consider reducing or withholding release of funds to the non-wage recurrent budget of the Government until such a time as it honours its responsibilities under this agreement.

3.8 *Changes to the Workplan*

3.8.1 Government will consider each request for authority to make changes to the Workplan on its own merit.

3.8.2 If Government does not find proposed changes in a workplan acceptable, it must give reasons for the same, and suggest viable alternatives to the District.

3.8.3 Central Government will reply to any authority within 30 days of receipt of the same from the District. If there is no reply received within this time frame the District can enact the changes without authority from Government.

4 VALIDITY OF PARTICIPATION AGREEMENT

4.1 This District Participation Agreement is valid from the date of signing until such a time Central Government decides to terminate it.

4.2 Any modification to this District Participation Agreement shall be by mutual agreement of both parties.

IN WITNESS WHEREOF: The authorised representatives of the parties have signed the District Participation Agreement on the **Date first above** written

For Central Government

For the District

.....
Executive Director
NAADS SECRETARIAT

.....
Chief Administrative Officer

In the Presence of

.....
Secretary for Production

In presence of

.....
Permanent Secretary
Ministry of Agriculture Animal Industry and Fisheries

And

In the presence of

.....
The Permanent Secretary, Ministry of Finance,
Planning and Economic Development

Annexure 8: Proof of editing

MAKERERE

P.O. Box 7062, Kampala, Uganda

Cable: MAKUNIKA



UNIVERSITY

Tel: +256-414-532-161

E-mail: llc-dean@chuss.mak.ac.ug

Websit <http://llc.mak.ac.ug>

e: [.ug](http://llc.mak.ac.ug)

SCHOOL OF LANGUAGES, LITERATURE & COMMUNICATION
Office of the Dean

6th November, 2017

Prof. Costa Hofisi
North-West University
Vaal Triangle Campus
Republic of South Africa.

Dear Prof. Hofisi,

Re: Clearance Letter for Editing Mr. Bruce Kisitu's PhD Thesis

I hereby confirm that I have read and edited the text of Mr. Bruce Kisitu's PhD thesis titled, **"Public-Private Partnership (PPP) Challenges in National Agricultural Extension Systems in Uganda: Towards a New Model."**

The edited version of the thesis generally reads well structurally and semantically, and the candidate can submit it with permission from his supervisor(s).

Yours sincerely,

Aaron Mushengyezi, Ph.D.
Associate Professor & Dean
School of Languages, Literature & Communication

Annexure 9: National Agricultural Extension Policy



MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES

NATIONAL AGRICULTURAL EXTENSION POLICY 2016.

FINAL DRAFT (FOR CABINET CONSIDERATION)

**Ministry of Agriculture, Animal Industry and Fisheries
P.O. Box 102
Entebbe, Uganda**

APRIL 2016



Foreword

Government, through the Ministry of Agriculture, Animal Industry and Fisheries has formulated the National Agricultural Extension Policy to guide, harmonize and regulate the provision of agricultural extension services to farmers, farmers' groups, and other actors in agriculture value chains throughout the country. Under the policy, MAAIF will lead the formulation and implementation of a structural and institutional framework for effective coordination of all public, private, and civil society actors towards realization of a common vision of: "Prosperous farmers and other agricultural actors for socio-economic transformation".

This policy is in response to government's commitment to realize an agricultural revolution in the country in line with the National Agriculture Policy (2013) and the overall national policy framework articulated in Vision 2040 and periodic National Development Plans. It is intended to address past shortcomings in agricultural extension service delivery and cause sustained progression of smallholder farmers from subsistence agriculture to market oriented and commercial farming. This will ensure that the extension services respond to user demand and emerging opportunities.

The policy objectives reflect countrywide consensus generated during highly interactive consultations and dialogues that were held with various stakeholders including farmers and farmers' groups, local governments, related ministries, departments and agencies, subject matter specialists, private sector, civil society, academia, policy makers and development partners. The policy has introduced innovations that are aimed at contributing to ending hunger, achieve food and income security, improved nutrition, expanded exports as well as promoting sustainable agriculture in the country. Agricultural extension, therefore, will be provided through a pluralistic, inclusive, equitable, decentralized, integrated and harmonious system that links all categories of extension users along the value chain with appropriate services, innovative technologies and the market.

I thank everyone who has contributed to the formulation of the policy and my Ministry is committed to sustain the momentum and enthusiasm generated during its implementation. Particular thanks go to members of the multi-sectoral and multi-institutional Technical Working Group for steering the process; consultants for technical assistance; and support received from our development partners; particularly the United States Agency for International Development, the Netherlands Embassy, and the World Bank.

For God and My Country

Hon. Tress Bucyanayandi (MP)

MINISTER

MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES

Table of Contents

Foreword	190
Acronyms and Abbreviations	192
Glossary	193
1. Introduction and Background	195
1.1 Introduction	195
1.2 Background	195
1.3 Situation Analysis	197
1.5 Problem Elaboration and Rationale for the Policy	199
2. The National Agricultural Extension Policy	200
2.1 Preamble - Policy Context	200
2.2 A New Strategic Direction for Extension Services	201
Policy Objectives	201
2.3 Guiding principles	201
3. Policy Areas, Statements and Strategies	202
Policy area 1.1: Establishment of an effective organizational and institutional framework for pluralistic agricultural extension services	202
Policy Area 1.2: Human Resource Management and Capacity Development	203
Policy Area 1.3: Regulation and quality assurance of extension services	203
Policy Area 2.1: Technology Development, Packaging and Dissemination	204
Policy Area 2.2: Agribusiness Development Services and Market Linkages	205
Policy Area 2.3: Agricultural Knowledge Management and Information System	205
Policy area 3.1: Farmer organizations and empowerment	206
Policy area 3.2: Targeting youth, gender and other vulnerable groups	206
4. Cross-Cutting Issues	207
5. Implementation Arrangements and Legal Framework	207
5.1 Implementation Arrangements	207
5.2 Legal framework	210
5.3 Funding of the Agricultural Extension Policy	211
6. Monitoring System and Policy Review Cycles	211

Acronyms and Abbreviations

ASSP	Agricultural Sector Strategy Plan
CCP	Commissioner of Crop Production
CSO	Civil Society Organization
DAES	Directorate of Agricultural Extension Services
FAO	Food and Agricultural Organization
ICT	Information and Communication Technology
LG's	Local Governments
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MDAs	Ministries, Departments and Agencies
M&E	Monitoring and Evaluation
MEL	Monitoring Evaluation and Learning
MFPED	Ministry of Finance, Planning and Economic Development
MIS	Management Information System
MSIP	Multi-stakeholder Innovation Platform
MTIC	Ministry of Trade, Industry and Cooperatives
MWE	Ministry of Water and Environment
NAADS	National Agricultural Advisory Services
NAEP	National Agricultural Extension Policy
NAES	National Agricultural Extension Strategy
NSAs	Non-State Actors
NDP	National Development Plan
NGO	Non-Governmental Organization
OWC	Operation Wealth Creation
TPM	Top Policy Management
UBOS	Uganda Bureau of Statistics
UIA	Uganda Investment Authority

Glossary

Agriculture (also called farming or husbandry): The art and science of growing crops, rearing of livestock, fish, bees, and other productive insects.

Agricultural sector: Includes crops, livestock, agro-forestry, fishing, apiculture, sericulture and other related activities.

Agricultural Extension Services: These include interventions/activities by government and NSAs that facilitate the access of farmers, their organizations, and other value chain actors to knowledge, information, and technologies; mediate their interaction with other relevant organizations; and assist them to develop their technical and management capacity in agriculture and family life.

Agricultural Extension System: The agricultural extension system includes the entire set of organizations and institutions (public, private, civil society), that are involved in providing agricultural extension services.

Beneficiaries: Individuals and organizations directly reached and benefiting from agricultural extension services.

Client-led extension services: This is a type of service where extension service providers routinely adopt a mindset of listening carefully to the demands/needs of beneficiaries as a basis for any interventions.

Commercial agriculture: Production of crops, livestock, fish, apiculture and sericulture products primarily for sale.

Farmer Empowerment: Building the capacity of individual farmers and farmer institutions to have greater access and control over structures and processes that transform their resources and assets into outcomes that they desire to achieve their goals.

Extension Worker: Personnel employed by agricultural extension service provider organizations (Government and NSAs) deployed to work directly with beneficiaries. Such personnel can be from a range of disciplines including agriculture, agricultural engineering, nutrition, agribusiness and related areas.

Farmer: A person who grows crops, or rears livestock fish, bees, silkworms and other productive insects.

Formal linkages: This is where organizations sign binding written agreements to guide their joint activities such as a memorandum of understanding. There are two types of formal linkages: 1) formal agreements to cooperate with extension services and 2) formal agreements to collaborate on extension activities, where joint collaboration on specific activities is defined and agreed upon.

Farmer organizations: Farmer organization is a generic word that includes farmer groups, farmer forum, farmer cooperatives, and other types of formal and informal collective structures.

Gender: Expected behavior and social characteristics (roles, responsibilities, decision making powers, status, access and control over resources) of men and women as determined by cultural norms in a particular community.

Informal linkages: These are working relationships between organizations with no written binding agreement.

Multi - stakeholder platforms - This is a physical or virtual forum that brings together different stakeholders to interact and work together towards mutually agreed goals and objectives.

Private sector: That part of the economy, which is run by private individuals or groups, usually as an enterprise for profit, and is not controlled by the state.

Subsistence agriculture: A type of farming in which most of the produce is consumed by the farmer and his or her household, rather than being produced for sale.

Technical content: All types of information, data, good practices, machinery, equipment, services, or other types of technology to be extended to beneficiaries.

Youth: Persons between the ages of 18 and 30 years.

1. Introduction and Background

1.1 Introduction

The Government of Uganda has in the past developed and invested in various agricultural extension approaches and systems with varying demand for human, capital and financial resources. The success has been mixed and sometimes unsatisfactory. In June 2014, Government took a decision to re-structure the entire national agricultural extension system, to address past weaknesses in extension services. This decision was based on the recommendations of the Cabinet Sub Committee Report (2014). The reforms dubbed as “Single Spine Extension System” included transfer of the extension function from the National Agricultural Advisory Services (NAADS) to the mainstream Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and the creation of a Directorate of Agricultural Extension Services (DAES); integration of the NAADS program into the local government production departments and eliminating the parallel institutional arrangements as well as separation of agricultural input supply from the extension service delivery system. In a bid to effectively implement the reforms, MAAIF has prioritized the formulation of an agricultural extension policy and strategy to guide implementation.

Accordingly, in December 2015, MAAIF embarked on the process of developing the policy involving extensive consultations with stakeholders across the country. The consultations focused on identifying the key challenges facing the agricultural extension service, the causes and building consensus on how best the challenges should be resolved. The consultations covered all categories of farmers and other value chain actors such as subsistence farmers; fisher-folk, processors, pastoralists, ranchers and their respective associations; nongovernmental organizations, academia, research institutions, civil society, training institutions, private sector, subject matter specialists, professional bodies and development partners. The policy is a general reflection of the views of the stakeholders.

The purpose of Uganda’s National Agricultural Extension Policy (NAEP) is to guide, harmonize and regulate the provision of agricultural extension services throughout the country. The policy has strategies to effectively organize, manage, strengthen, regulate, and develop human resources, techniques and technology. It also stipulates guiding principles, methods and approaches for delivering agricultural extension services to meet farmers and other value chain actors’ needs. Implementation of the policy will require participation by all the stakeholders from state and non-state organizations.

1.2 Background

1.2.1 The importance and structure of agriculture sector

Globally, it is estimated that 90% of the 570 million farms are managed by individuals or families and rely on family labor. About 2.5 billion people depend on agricultural production systems for their livelihoods. The global agricultural environment is changing at unprecedented rate and in very diverse ways as a result of privatization, market liberalization and globalization. The domestic and regional urban population is also increasing dramatically and this is accompanied by higher incomes and changing nutritional diets leading to greater demand for high-value agricultural products.

Smallholder farmers produce more than 80% of the World’s food, yet they manage just 12% of all agricultural land. Smallholder farmers also play a vital role in environmental

sustainability, including climate change adaptation and mitigation, by protecting biodiversity in agriculture. They, therefore, deserve more attention from policymakers to unleash their full business potential. As global poverty affects smallholder farmers disproportionately, achieving poverty reduction goals will require taking a fresh look at how agricultural policies are designed and coordinated so as to cater for their needs. The role of agricultural extension is recognized as critical in realizing the enduring challenges facing smallholder farmers.

In Uganda, agriculture has been and in the foreseeable future will remain central to the country's economic growth and poverty reduction. It is the springboard for socio-economic transformation. More than 69% of the population² derive their livelihoods from the sector, it is a market for non-agricultural output and a source of surplus for investment. The sector also directly contributes to about 26% percent of GDP³ and about half of the country's exports. Processing agricultural produce accounts for more than 40 percent of total manufacturing. The sector is dominated by food crops, cash crops, livestock, fisheries and agro-forestry production.

Uganda has about 14,169,000 hectares of arable land which is nearly 50% of the arable land in East Africa. There is abundant rainfall, and two growing seasons over much of the country. The country is generally food secure and a reliable source of food for neighboring countries that often face food shortages. The country is dominated by small-scale farmers who are estimated to deliver over 75 percent of the total agricultural output and marketed agricultural produce. The medium size farmers, commercial farmers and estate operators are about 15 percent, 3 percent and 0.5 percent of farmers, respectively.

The sector's performance in recent years in terms of production, productivity, exports and food and nutrition security has not been as expected due to a number of challenges including: slow adoption of technological innovations particularly amongst women farmers despite being the majority of agricultural labor force; poor management of pests and diseases; a weak agricultural extension system, with limited access especially among women; dependency on rain-fed agriculture; poor post-harvest handling techniques; inadequate bulking and storage facilities; limited market information and capacity of the primary producers to meet the standards required in export markets; absence of efficient input distribution systems; a weak monitoring and evaluation system; and inadequate public investment in the sector which has averaged about 3% over the last decade.

1.2.2 Factors that contribute to agricultural sector outcomes

Key agricultural sector outcomes include increased productivity, production and household incomes which Government has set at a minimum of Ushs 20 million per year per household. To achieve these outcomes, farmers need to have access to basic factors of production of land, labour and/or labour saving technologies, capital and management skills. Capital is necessary to acquire productivity enhancing inputs such as seeds; stocking materials, fertilizer, feeds; animal drugs, fish fingerlings, and agro chemicals among others. In order to combine all these factors to achieve the agricultural sector outcomes, the farming community and other value chain actors require appropriate information, knowledge and skills to optimize the use of available resources. This is the role that agricultural extension plays. Together with agricultural research, agricultural extension is a key public good that

²UBOS, National Population and Housing Census Report, 2014

³ UBOS, 2014 Statistical Abstract

Government will continue to support in order to transform agriculture into a modern sector that contributes to wealth creation and prosperity.

1.2.3 The importance of agricultural extension services

Evidence from several studies conducted in Uganda and across the globe confirms that agricultural extension plays a central role in helping poor agricultural households to improve productivity and escape from poverty. The Government's drive to transform farming from subsistence to more market oriented and increasingly commercialized system requires improved technical and management information, knowledge and skills. Agricultural extension is the knowledge base of the sector and the main driver of the sector's transformation.

1.3 Situation Analysis

1.3.1 Historical Trends in Agricultural Extension

Agricultural extension in Uganda started in 1898 through a regulatory system locally referred to as '*kiboko*' and has evolved through various methods and approaches including the supply-led progressive farmers approach of the 1950s to educational approach in the 1960s. This was followed by a dormant phase in the 1970s that is sometimes referred to as non-directional period. The period from 1980s to 1990s was a revival phase that was dominated by the Training and Visit agricultural extension model and the unified agricultural extension systems. The most recent was the demand-driven, decentralized, client-led and private sector serviced extension system under the NAADS program that ran from 2001-2014. This system has now been reformed into what is expected to be a more inclusive, better coordinated and decentralised agricultural extension system termed "Single Spine Agricultural Extension Service delivery system"

Despite success in several areas including a legal framework, overall, agricultural extension in Uganda over the last two decades, has served limited number of farmers (less than 20%). Its messages and approaches have not been effective in significantly changing producers' mind set and boosting productivity. Funding and delivery mechanisms have not been adequate, efficient and sustainable.

For a long time agricultural extension has been characterised by frequent changes of policy and modus operandi as well as low sensitivity to the farmers' needs. This has made it susceptible to diminished clientele buy-in and support. The research-extension-clientele linkages and the delivery systems and mechanism have also been inefficient. This has been compounded by lack of access to affordable and quality productivity enhancing technologies; poor linkages to markets and other services; and effective co-ordination mechanisms. The lack of financial and performance accountability and client ownership further aggravated the situation. The NAEP is developed to mitigate these challenges.

1.3.2 Current Status of Agricultural Extension in Uganda

Extension Service Actors and their roles

There are three broad categories of extension service actors in Uganda.

First there are the agricultural extension service providers. This category includes the public sector through MAAIF and local governments whose role is to oversee and coordinate the delivery of extension across the country under the decentralized structure of government. In fulfilling this function, the public sector extension providers have faced major challenges. A recent study by the Economic Policy Research Centre showed that funding for agricultural extension declined from 39% of the sector budget in FY 2010/2011 to 13% in FY 2014/2015. In addition, the extension service does not have sufficient human resources to deliver the level of services necessary to create productivity gains. As of March 2016, only 35% of the established/approved technical positions in local governments were filled. Public extension workers also do not have sufficient skills, are generally demotivated and lack performance assessment system for rewards and sanctions. Other actors in extension provision delivery include: NGOs and farmers organizations, private sector firms and associations as well as donor funded projects. The current challenge with these extension service providers is that they operate independently and some deliver information and messages that are not harmonized and quality assured.

The second category is the trainers of extension workers and these include but are not limited to universities and other tertiary training institutions. There is a general concern that agricultural training institutions lack relevant practical content and are not in tandem with the changing demands and paradigm shifts.

The third category of actors are those who generate content that agricultural extension services deliver to farmers and these include research organizations and universities among others. Their role is to develop technologies and recommend good agricultural practices for adoption by beneficiaries. In carrying out this role, they work in collaboration with the extension services and farmers during the development stages who also provide feedback on the performance of technologies and the recommended good agricultural practices. However, these linkages have not been as strong as would have been desired.

Extension Content and Delivery approaches

The delivery of agricultural extension comprises diverse approaches that include: face-to-face training usually in a group setting; farmer field schools, field demonstrations, agricultural shows and fairs, field days, exchange visits and mass media. Other delivery methods are: adaptive research trials, randomized control trials, technology multiplication and e-extension.

Related to delivery approaches is the issue of extension content which in Uganda is more often than not uncoordinated. There is significant variation in what extension service providers deliver on the same commodity on the same agricultural practice and in the same agro-ecological area. There are also cases of blanket content across the country that does not take into account variations in agro-ecological zones. Important to note also is the fact that the scope of most content is limited to production practices and omits other stages of the value chain which are important for optimizing returns to investment. Nevertheless, there are some emerging best practices in developing extension content as is the case with the coffee sector which has developed harmonized extension materials.

Extension content also needs to take into consideration the increasing risks to agriculture, not least the growing impact of climate change and environmental degradation. Measures to address these risks and threats must be included in the content of extension and delivery approaches. Finally, for the general wellbeing of the farming and rural communities the need

to be educated beyond production. For instance, many households produce enough quantity and variety of foods but do not know how to utilize them. The need advice on how to utilize these food for improve household nutrition. These too will included in extension content.

Coverage of extension Beneficiaries

Recent extension programs including NAADS have reached only a limited number of farming communities (22%) ⁴and tended to benefit only better off farmers⁵. Another study⁶revealed that women, youth and Persons with Disabilities had lower access to extension services compared to men. Given that women farmers provide over 70% of the agricultural labour force, their limited access to extension services means lower adoption of improved technologies (estimated at 17 less compared to men) and consequently a smaller contribution to productivity and output. Similarly, youth (10-30 years of age) comprising 57% of Uganda's population⁷, the majority of whom are residing in rural areas where agriculture is the main economic activity, are lagging behind in accessing extension services. Yet, the National Youth Policy (2001) clearly stipulates that youth who are farmers should be provided with market information and agricultural extension services. Without mobilizing this energetic segment of the population, their contribution to agricultural sector and the economy will remain untapped.

Other policies of relevance to Agricultural Extension

Without effective extension services, several policies cannot be fully and effectively implemented. NAEP will therefore contribute to, support and complement the implementation of several related policies that have been formulated over the years. The policies that are of great relevance to NAEP include: The National Agricultural Policy (2013); The National Policy on Delivery of Veterinary Services (2003); The National Agricultural Research Policy (2005); The National Animal Breeding Policy (1998); The National Fisheries Policy (2004); The Animal Feeds Policy (2003); The Food and Nutrition Policy (2003); The National Land Use Policy (2013); The National Environment Management Policy (1994); The National Gender Policy (2007); and the National Youth Policy (2001).

The National Agricultural Policy provides the framework for formulation of agricultural sub-sector policies, plans and strategies while the rest of the policies listed require a well-functioning agricultural extension service to contribute to the realization of their objectives and strategies.

1.5 Problem Elaboration and Rationale for the Policy

Agricultural extension plays a vital role in disseminating knowledge, technologies, agricultural information and also linking farmers to the other actors in the economy. The extension service is, therefore, one of the critical change agents required for transformation of subsistence farming where 82% of the population is involved to a modern and commercial agriculture where a paltry 2% are engaged⁸. This is critically important in promoting household food security, wealth and employment creation. The low levels of productivity

⁴UBOS, 12_13 UNHS Final Report

⁵NAADS, Impact Evaluation, 2007

⁶Godfrey Okoboi et al, EPRC, The Impact of NAADS on household production and welfare, 2013

⁷UBOS, 2014 National Population and Housing Census

⁸UBOS, 2014 National Population and Housing Census

experienced in Uganda today and the high post-harvest losses (20%-30%) that result in meager returns for smallholders as well as the high prevalence of malnutrition are largely attributed to absence of an effective and efficient agricultural extension service. Empirical studies have shown that farm yields are about 28% of yields at experimental stations; and that agricultural extension has the potential of increasing efficiency use of inputs by more than 60%.

Government therefore, recognizes that a well-functioning agricultural extension system is important in socio-economic transformation of the smallholder farmers who are still trapped in a vicious cycle of poverty. This transformation does not only require more innovative approaches to enhance stakeholder competences and skills, but adequate information and knowledge base. On the basis of this, the sector will be able to track progress, gather relevant information for strategic interventions and give timely feedback.

Over the last two decades, Government has implemented reforms of the agricultural extension service. The lack of consistency in implementation has partly been attributed to absence of a coherent national agricultural extension policy to guide action in the long term. For the new extension service to start on the right foundation, it is crucial that a clear strategic direction is defined and a clear roadmap put in place to achieve it. This is what the National Agricultural Extension Policy shall do.

2. The National Agricultural Extension Policy

2.1 Preamble - Policy Context

NAEP is designed to contribute to the achievement of high level national and sector policy frameworks as well as to the United Nations' Sustainable Development Goals. The **Uganda Vision 2040** envisages a transformed Ugandan society from a peasant to a modern and prosperous country within 30 years. This transformation will be achieved, among others, through a modern and indigenous knowledge-based agriculture as reflected in the **National Agricultural Policy** whose vision is "a competitive, profitable and sustainable agricultural sector" that will be realized by "transforming the sector from subsistence farming to commercial agriculture".

The overall development and growth of the sector as stated in the policy is anchored on three strategic thrusts: a) increasing production and productivity with a focus on selected strategic enterprises for each of the ten ecological zones in Uganda; b) strengthening capacity in technical areas of agriculture such as seeds, agrochemicals (including fertilizer), water for production, mechanization, etc.; and c) strengthening the capacity of government and non-governmental institutions in the sector to efficiently deliver productivity enhancing and regulatory services necessary for the sector's growth. Agricultural extension is one of the services that will play a central role in realizing this transformation.

This role has also been recognized and emphasized in all periodic national and sector development plans over the last two decades including the current **National Development Plan (NDP II) (2015 /2016 - 2019/2020)** and the **Agricultural Sector Strategic Plan (ASSP 2015-2020)**. Consistently, emphasis has always been given to strengthening research and extension services, identifying and building key human resource capacity; technology adaptation at the farm level including modern irrigation technologies; up scaling the transfer and utilization of food-production and labour-saving technologies for women farmers; increasing access to and use of critical farm inputs; promoting sustainable land use and soil management; nutrition and increasing access to agricultural finance with specific attention to women. All these priorities require effectively functioning extension services to realize.

The National Agricultural Extension Policy (NAEP) therefore, has been developed to provide long-term strategic direction for agricultural extension services in the country.

2.2 A New Strategic Direction for Extension Services

The new strategic direction is to transform extension from a system of parallel institutionally fragmented public and non-state actors to a well-coordinated, harmonized, regulated pluralistic service with multiple providers addressing diverse needs. The second dimension of the new direction is to address the extension needs along the entire value chain (as opposed to the previous focus on mainly primary production) and synergistic integration with other agricultural support services for optimum return on investment.

Vision statement

The *vision* of the National Agricultural Extension Policy is: “***Prosperous farmers and other agricultural actors for socio-economic transformation***”

Mission statement

The *mission* of the policy is to: “***promote application of appropriate information, knowledge, and technological innovations for commercialization of agriculture.***”

Policy Goal

To establish and strengthen a sustainable farmer-centred agricultural extension system for increased productivity, household incomes and exports.

Policy Objectives

The main objectives of the National Agricultural Extension Policy are:

1. To establish a well-coordinated, harmonized pluralistic agricultural extension delivery system for increased efficiency and effectiveness.
2. To develop a sustainable mechanism for packaging and disseminating appropriate technologies to all categories of farmers and other beneficiaries in the agricultural sector.
3. To empower farmers and other value chain actors (including youth, women and other vulnerable groups) to effectively participate in agricultural extension processes and build their capacity to demand for services

2.3 Guiding principles

The pursuit of the strategic direction, vision, mission and the policy objectives will be guided by the following principles.

- i) **Pluralism:** The provision of extension services will be carried out by well-coordinated multiple actors including public and non-state actors and will address the diverse needs of beneficiaries.

- ii) **Decentralization:** Provision of agricultural extension shall continue to be a decentralized function in line with the government's decentralization policy.
- iii) **Inclusiveness.** Extension will be provided to all categories of farmers (small, medium and large) and agricultural value chain actors.
- iv) **Client-led:** The extension agenda will be guided by beneficiaries' technological needs, demands and problems.
- v) **Market Oriented:** The extension services will be based on local regional and international market demands.
- vi) **Value chain approach:** Extension messages will cover all relevant segments of the commodity chains with the aim of adding value for the benefit of producers and other value chain actors.
- vii) **Gender responsiveness:** In the provision of extension services gender based constraints, needs and opportunities will be identified and addressed in order to effectively realize the full potential of both women and men. Beneficiary targeting will be guided by the principles of gender equity and equality.
- viii) **Financial Realism:** The systematic implementation of this policy will consider the available financial resources within the sector budget and set areas of priority.

3..Policy Areas, Statements and Strategies

Objective 1: To establish a well-coordinated, harmonized pluralistic agricultural extension delivery system for increased efficiency and effectiveness.

Policy area 1.1: Establishment of an effective organizational and institutional framework for pluralistic agricultural extension services

Policy statement: Government will establish an effective organizational structure for the public extension system and define how it will link and work with relevant non state actors.

MAAIF will work with relevant ministries, local governments, farmer organizations, civil society networks, private sector umbrella organizations and other non-state actors to establish clear organizational structures and lines of authority for the pluralistic extension system.

Strategies:

- a. MAAIF will review and update existing DAES, District, Sub-county and Agencies organizational structures to ensure adequate coverage at oversight, technical and implementation levels country-wide.
- b. MAAIF will operationalize gender responsive operational procedures including decentralized planning guidelines, for the various functions of the DAES.

- c. MAAIF and local governments will **establish and maintain formalized functional linkages with NARO and other key actors** in the agricultural extension system to facilitate coordination and collaboration
- d. MAAIF will develop and track implementation of standardised protocols among extension services actors/partners that define agreed upon roles, responsibilities and linkages.

Policy Area1.2: Human Resource Management and Capacity Development

Policy Statement: Human Resources for Agricultural Extension shall be managed and developed to ensure efficient and effective delivery of services.

Government will ensure that all implementing organizations have adequate human resources matching present and future demands in terms of numbers, knowledge, skill and experience, as well as their strategic deployment. In order to retain highly qualified human resources and optimize their performance, MAAIF in conjunction with Ministry of Public Service and local governments will operationalize a personnel management system that ensures staff motivation, supervision, as well as facilitation and access to appropriate field operation requirements and logistics.

Strategies:

- a. MAAIF will profile, recruit and retain a pool of highly motivated and appropriately qualified cadre of staff at national and local government levels in accordance with the approved structure.
- b. MAAIF in partnership with local governments will operationalize the sanctions and reward system including setting performance standards, to motivate agricultural extension personnel to achieve the highest quality of service delivery;
- c. MAAIF and Non State Actors shall design and implement regular in-service capacity building programs for extension service practitioners.
- d. MAAIF will collaborate with academic institutions to periodically reorient the curriculum and delivery methods at universities, vocational institutes and agricultural training institutions to focus on the practical and strategic needs of the agricultural extension services.
- e. MAAIF in collaboration with Ministry of Education, Science, Technology and Sports will support internship and other skilling programs at national and district levels for students of universities and other tertiary institutions in all agricultural disciplines.

Policy Area 1.3: Regulation and quality assurance of extension services

Policy statement: Government will establish systematic procedures for regulation of extension services provided by the range of service providers under the pluralistic extension system to ensure that farmers and other beneficiaries access quality services.

Strategies:

- a. MAAIF will develop and enforce implementation of guidelines, a code of ethics and standards for extension service providers; knowledge, information and other extension products and processes in line with relevant regional and international standards.
- b. MAAIF will establish mechanisms for registration and accreditation of extension service providers and practitioners.

Objective 2: To develop a sustainable mechanism for packaging and disseminating appropriate technologies to all categories of farmers and other beneficiaries in the agricultural sector

Policy Area 2.1: Technology Development, Packaging and Dissemination

Policy statement: MAAIF will work and collaborate with all relevant actors to develop, source, package and disseminate appropriate extension materials, and information targeted at all nodes of agricultural value chains (from production to consumption) through the pluralistic extension system.

Strategies:

- a. MAAIF will develop standard operating procedures for development, sourcing, packaging, testing and dissemination of extension materials.
- b. MAAIF will establish a formal working relationship with NARO and other research organizations/institutions to ensure participation of the extension services and farmers in identifying, testing and evaluating technological solutions including indigenous knowledge.
- c. MAAIF will establish technical content Validation Committees (suited to the diverse technical areas) managed by DAES and mandated to review and validate technical content and extension materials intended for delivery to beneficiaries. These committees will include members from MAAIF agencies, academic institutions, and other partners as appropriate.
- d. MAAIF in partnership with local governments and non-state actors will develop, test, utilize, and promote approaches and methods (including e-extension) that are cost effective, suited to the respective technical content, ensure wide coverage, and timely access to all categories of beneficiaries (e.g. youth, women; small-scale and large scale commercial farmers; other value chain actors).
- e. MAAIF will review global and regional market trends and develop appropriate extension content.
- f. MAAIF shall document and validate innovations, best practices and proven appropriate technologies for promotion in the field as well as guiding the development of national standards.
- g. MAAIF in collaboration with Ministry of water shall promote the integration of technical services and other software activities under irrigated agriculture, livestock watering, farm power and machinery, farm planning systems, soil and water management and drainage, postharvest handling, agro-food processing into field extension services.
- h. MAAIF in partnership with MDAs, climate change units, local governments and non-state actors shall develop, package, and disseminate climate change adaptation and

mitigation technologies, agricultural risk management and information to ensure resilient and sustainable cropping, animal and fisheries systems.

Policy Area 2.2: Agribusiness Development Services and Market Linkages

Policy statement: Government shall adopt a market oriented agricultural extension services approach that promotes commercialization of Agriculture. Farmers and other value chain actors shall be supported to access agribusiness services, markets, and other services to enable them make profitable agricultural investments.

Strategies:

- a. MAAIF will strengthen agribusiness services to ensure farmers and other value chain actors make informed investment decisions.
- b. MAAIF will establish a system for linking farmers and other value chain actors to support services including input suppliers, markets outlets, aggregators (local, regional, international) and financial services.
- c. Establish a system for collecting, regular updating and sharing of profitability, gross margins and cost-benefit analyses of priority enterprises.
- d. MAAIF will support specialized extension services for development of priority strategic commodity value chains.
- e. MAAIF in collaboration with local governments and NSAs will support successful farmers and private organizations to develop into hubs for farmer training and innovation sharing through public private partnerships.
- f. MAAIF will promote demonstrations/incubation centres for product development, value addition and agro processing.

Policy Area 2.3: Agricultural Knowledge Management and Information System

Policy statement: Government will establish a knowledge base management and information system that will facilitate agricultural extension service delivery.

Strategies:

- a. MAAIF will establish a decentralized one-stop-centre for agriculture extension knowledge and information that is comprehensive and meets the needs of the users. The centre will be serviced by an integrated national backend ICT enabled knowledge and information systems for agriculture.
- b. DAES will establish an integrated and dynamic system for the sub-sector statistics in collaboration with other actors to improve access and use of information generated.
- c. MAAIF will promote the sharing of agricultural knowledge and information through value added information products in print, electronic and web mode for all categories of users including beneficiaries and service providers. The system will also have an in-built mechanism for soliciting feedback from users.

- d. Build the capacity of MAAIF and other actors in agricultural knowledge management and communication.

Objective 3: To empower farmers and other value chain actors (including youth, women and other vulnerable groups) to effectively participate and benefit equitably from agricultural extension processes and demand for services

Policy area 3.1: Farmer organizations and empowerment

Policy statement: Government will build the capacity of farmers' institutions to effectively participate and benefit from agricultural extension services. To realize farmer empowerment, the thrust of this policy is to mobilise farmers into viable institutions, equip them with requisite skill and link to appropriate support services.

Strategies:

- a. MAAIF will support strengthening of farmer organizations.
- b. MAAIF, local governments and NSA will provide targeted support and guidance to promote good governance in farmers' collective actions and groups such as associations and cooperatives.
- c. MAAIF, local governments and NSA will support development of the capacity of farmers and other value chain actors in production, agribusiness skills, value addition and post-harvest management through systematic training programs.
- d. MAAIF, local governments and NSA will support the transformation of farmers' organizations into farmer owned commercial entities well integrated into value chains for better markets linkages (at local, regional, and international levels), and access to other support services.
- e. MAAIF will build the capacity of farmers to be able to demand for agricultural programmes and services.

Policy area 3.2: Targeting youth, gender and other vulnerable groups

Policy statement: Government shall take measures to attract and support youth, women and other vulnerable groups to access extension services by deliberately addressing constraints that have limited their effective participation and equitably benefiting from them.

Strategies:

- a. MAAIF, local governments and NSAs will promote effective youth involvement in agricultural extension through targeted affirmative actions, capacity building and linkage to service providers.
- b. MAAIF will develop operational guidelines, procedures and M&E of the extension system on gender responsiveness.
- c. MAAIF will prioritize capacity development for gender responsive extension for all staff at national and local government levels as well as NSA.
- d. MAAIF will target men, women and vulnerable groups identified from time to time through affirmative actions, and guide NSA to reach out to under-served areas.

4. Cross-Cutting Issues

Under NAEP, the Ministry shall address key cross cutting issues that have hindered progress in agricultural transformation by:

- a. Integrating climate change and environmental management into extension services through incorporating appropriate content for adaptation and mitigation.
- b. Targeting HIV/AIDs affected persons and households to ensure they benefit from agricultural extension and other services.
- c. Mainstreaming and targeting gender, youth and vulnerable groups to enhance their benefits from and contribution to the agricultural sector and the general economy
- d. Including food and nutrition security issues into agricultural extension content to ensure production and consumption of foods that contribute to a healthy population.
- e. Incorporating Family life education into extension curriculum to ensure harmonious family relationships and reduction in gender-based violence.
- f. Promoting effective land utilization in order to maintain land holdings at viable sizes and discourage land fragmentation.
- g. Managing perceptions buttressed in culture, religion and other traditions for positive contribution to uptake of modern farming practices.

These issues will be addressed by incorporating them in technical content for extension system to deliver and through standalone policy areas such as policy area8 which will tackle inclusion of youth, gender and other vulnerable groups.

Implementation Arrangements and Legal Framework

5.1 Implementation Arrangements

The implementation of NAEP at national and local government levels shall be managed and coordinated by the Ministry of Agriculture, Animal Industry and Fisheries. The roles and responsibilities of the various actors in the implementation of the policy are summarized in the following table.

	Institution	Roles and Responsibilities
1.	Ministry of Agriculture, Animal Industry and Fisheries	• Provide overall policy guidance • Establish and maintain an effective KS, ICT, MIS to ensure Information gathering, packaging, storage and dissemination • Promote and coordinate the delivery of complementary services such as supply and quality assurance of inputs.
2.	Directorate of Agricultural Extension Services (DAES)	• Overall Coordination of agricultural extension service • Undertake capacity building programmes at all levels • Set standards for service delivery • Regulation and quality assurance of extension service providers • Monitoring and Evaluation of agricultural extension services • Promotion of Agribusiness and Enterprise Development • Support local governments in planning and budgeting for extension services
3.	MAAIF	• Develop and package technical content in collaboration with DAES

	Institution	Roles and Responsibilities
	Technical Directorates and Agencies	• Provide technical support and backstopping of local governments and NSAs • Development of commodity value chains and define relevant extension requirements • Participate in capacity building programs • Regulation and quality assurance of input supplies • Support planning and budgeting for agricultural extension services • Participate in Monitoring and Evaluation of extension services
4.	Ministry of Trade, Industry and Cooperatives (MTIC)	• Issue guidelines for harmonizing Public-Private Partnerships for promoting private sector investments in the agricultural sector • Provide technical support in development of agricultural cooperatives societies • Promote Marketing of agricultural products • Provide Market information and identification of new markets for agriculture products. • Support agricultural industrial development
5.	Ministry of Finance, Planning and Economic Development	• Mobilization and provision of financial resources for agricultural extension services • Monitoring and Evaluation of the agricultural sector performance • Guide the collection and collating of agricultural Statistics through Uganda Bureau of Statistics (UBOS) • Identify and promote investment opportunities through Uganda Investment Authority • Provide enabling environment for acquisition and provision of agricultural credits
6.	Ministry of Local Government	• Administration and Coordination of District Local Governments • Monitoring performance of District Local Governments • Policy and Advocacy support for District Local Governments • Supervision of District Local Government Activities
7.	Ministry of Public Services	• Review and approval of the establishment structures • Provide policy guidance on human resource management and development • Provide technical guidance during recruitment exercise, retirement and pension
8.	Ministry of Information, communication & Technology	• Provide policy oversight on ICTs • Promote use of transferable appropriate information technologies • Contribute to the strengthening and setting up of information laboratories •
9.	Ministry of Water and Environment (MWE)	• Provision of off-farm water related services • Guidelines on environmental issues • Provide climate change/metrological information services
10.	Ministry of Gender,	• Provide policy oversight on gender and youth • Mobilization and sensitization of gender and youth

	Institution	Roles and Responsibilities
	Labour and Social Development (MGLSD)	• Community mobilization for uptake of extension services • Participation in farmer group formation and sustainability • Mainstreaming gender issues in extension programs
11.	Ministry of Education and Sports (MoES)	• Curriculum development • Training and development of agricultural extension service providers • Review and develop relevant curricular to suit current extension demands • Accredit training courses and private training institutions
12.	Ministry of Health	• Provide Nutrition information for extension services • Provide information on food safety and standards at household level • Develop and package information on zoonotic diseases • Provide Animal Drugs regulation services
13.	Academia (Universities, Colleges and training institutions)	• Curriculum development for agricultural extension • Training and development of agricultural extension service providers • Participate in certification of service providers • Offer specialized training for professionals and para professionals • Partner with MAAIF to develop appropriate and practical internship programs • Provide research services for agricultural extension programs
14.	Research institutions	• Generation of research priorities in consultation with farmers, extension agents and other stakeholders • Formulate and implement research projects and programs • Participate in setting and reviewing the policy document • Provide technical support and training of stakeholders • Established mother garden • Promote adaptation and use of appropriate technologies
15.	District local Government (DLG)	• Responsible for implementation of agricultural extension services • Supervise the delivery of agricultural extension services up to farm level • Subject matter specialists providing technical backstopping to Sub-counties and NSAs • Monitoring and Evaluation • Capacity building of lower local governments • Planning and budgeting for agricultural extension • Provide local market information and identify market opportunities for produce
16.	Sub County Local Government	• Training of farmers and farmer groups in institutional development • Planning and priority setting for agricultural enterprises and technologies • Provide extension services along the value chains through demonstrations, • Visits, field days competitions and shows • Supervise and build capacity of community based service providers • Monitoring, Evaluation and reporting • Collect agricultural statistics

	Institution	Roles and Responsibilities
		• Link farmers to other service providers • Facilitate knowledge sharing through multi-stakeholder Platforms • Participate in adaptive research activities • Provide technical backup for multiplication of technologies • Implement broader agricultural services
17.	Non-State Actors (NGOs, CSOs, PSO)	• Policy advocacy for extension services at all levels • Resource mobilization for agricultural extension services • Private extension service provision • Supply of quality agricultural inputs • Support postharvest handling, storage, value addition and processing • Provide services in transport, trade and marketing • Mobilize farmers into groups • Sensitization and training of farmers • Support vulnerable groups • Support capacity building in extension services • Promote delivery of quality services
18.	Development Partners	• Provide policy and advocacy support for extension • Provide technical Assistance to agricultural extension • Mobilize financial resources for agricultural Extension
19.	Farmers/ Farmers Organizations and other value chain actors	• Uptake of agricultural technologies to improve production and productivity • Farmer to farmer extension services • Multiplication seeds, planting materials and stocks • Mobilization of farmers and resources • Farmer institutional development • Facilitate community based support services for agricultural extension • Self-regulation and quality assurance of services • Monitoring and Evaluation • Record keeping and provision of agricultural statistics • Innovations using indigenous knowledge • Engage in policy dialogue and facilitating business • Provide extension at their respective segments of the value chains

5.2 Legal framework

To implement the National Agricultural Extension Policy, the following changes are required in the existing legal framework:

- a. Review of the NAADS Act (2001) to reorient its functions to provision of adequate and quality production and value addition inputs and equipment at farm and other nodes of the value chain.
- b. Enact a new law (National Agricultural Extension Act) to support the implementation of NAEP.

- c. Develop statutory instruments for regulation of agricultural extension service providers
- d. Review the Universities and Tertiary Institutions Act to address the institutional home of agricultural training institutions.

5.3 Funding of the Agricultural Extension Policy

A planning, budgeting and funding process exist as guided by The Public Finance Management Act of 2015. This will be complied with and strengthened to harness, coordinate and consolidate resources from both the public and Non State Actors for agricultural extension. MAAIF will effectively implement integrated planning and budgeting for the entire extension system. It will also justify and mobilize funding for both the public and non-state actors. MAAIF will work with other ministries that implement agricultural activities to identify, harmonize and coordinate the deployment of financial resources for agricultural extension in order to avoid and/or reduce duplications and efficiently use the available resources. A deliberate effort will be made to promote the contribution of the private sector to the funding of agriculture extension as a public good.

Monitoring System and Policy Review Cycles

The monitoring and evaluation of extension service delivery and performance will be undertaken as part of the already established agriculture sector Monitoring and Evaluation (M&E) framework and M&E strategy, which feeds into the National M&E framework and policy coordination under the Office of the Prime Minister

To facilitate this linkage, a comprehensive monitoring and evaluation plan has been developed as part of the National Agricultural Extension Strategy. Through the plan, an M&E sub-system will be designed and operationalized to systematically monitor the performance of the pluralistic extension system, evaluate its impacts at national, district and sub-county levels, with in-built mechanisms for feedback to actors and appropriately packaged information products to improve performance. The extension M&E sub-system will be supported by a strong statistics services in the centralized MAAIF data centre. It will also identify relevant indicators for each policy area and implementation level and specify data collection, analysis and reporting with provisions for baselines, participatory process evaluation, and independent external impact assessments. Randomized control trials on good practices will be regularly conducted to inform learning and adaptation.

The M&E sub-system will ensure that extension personnel in local governments and NSA are accountable to MAAIF as well as beneficiaries. It will measure performance of the system against set targets and standards, beneficiary satisfaction, and return on investment.

The information collected through the M&E sub-system will inform the periodic evaluation and reformulation of the NAES as well as the review of the policy document every ten (10) years in line with the national planning cycle.