GHANA FEED THE FUTURE AGRICULTURE POLICY SUPPORT PROJECT (APSP)

PUBLIC PRIVATE PARTNERSHIP ARRANGEMENTS IN THE AGRICULTURE SECTOR OF GHANA

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Executive summary

The enormous potential that the agriculture sector of most emerging economies holds cannot be fully harnessed if the quantum of investment required by the sector remains unmet. Although it is generally acknowledged that investment in agriculture is key to the attainment of sustainable agriculture development goals, public sector support for the sector, especially in developing countries, has been dwindling over the years. Thus, the inability of the sector to unleash its replete potentials for the benefit of these countries. Motivated by the quest to harness the full benefits of agriculture development through investment in the sector, African heads of states and government met in Malabo in 2003 to adopt the Comprehensive African Agriculture Development Programme (CAADP). This programme seeks to promote public sector support for agriculture by requesting all signatories to allocate not less than 10% of their national budgetary resources to support the agriculture sector of their respective countries by 2015. With the continuous decline in the level of public sector support for the agriculture sector, African governments need to find innovative financing mechanisms to raise the needed investments for the agriculture sector.

Public Private Partnerships (PPP) have been identified as one of the innovative financing mechanisms through which governments can crowd in private sector resources and expertise into the agriculture sector. When well-designed, agriPPPs can help modernise agriculture and support the realisation of development goals in agriculture. A well-planned agricultural PPP can rack in manifold benefits to smallholders and further augment the development of agricultural value chains where gender related roles can be identified. In fact, a well-crafted agriPPP can help Ghana realise CAADP's goal of 6% annual productivity growth in agriculture through increased investment in the sector.

These potential benefits notwithstanding, such partnership arrangements are scarce in the agriculture sector of Ghana, due to limited understanding of the agriPPP concept and the high level of actual and perceived risks and uncertainties associated with agriculture and its related businesses in the country. Motivated by the potential benefits of agriPPPs and the need for such innovative partnerships in the agriculture sector of Ghana, this study seeks to ascertain the key drivers of effective and sustainable agriculture sector PPPs, and to further make recommendations for key stakeholders involved in the development of effective and sustainable agriculture sector PPPs in the country.

The results of the study show that Ghana's PPP environment is nascent and has room for significant progress to be made. The Build-Operate-Transfer (BOT) model is not popular in the agricultural sector of the country due to the challenge of payment of service charges. It is also evident that most of the supposed PPP arrangements in the agriculture sector of Ghana do not meet the key elements in Ghana's PPP policy document. The Government hardly shifts a significant proportion of the risk involved in partnerships to the private sector.

All actors involved in agriPPP arrangements have unique roles and responsibilities and these are determined by the prime goal of the partnership. In most agriPPP arrangements, smallholder farmers are regarded as investors and/or beneficiaries of the partnership. Development partners mostly provide funding and technical support during the implantation process. The public sector is the main financier of agriPPPs in the country. There is no standardised financing structure for agriPPPs in Ghana.

The success of agricultural sector PPPs in Ghana is determined by the attractiveness of the sector to investors, and the clarity and enforcement of contractual agreements. Conversely, risks and uncertainties associated with partnerships, bureaucracy and the lack of transparency can derail effective PPP collaborations. The national PPP policy is skewed towards the provision of infrastructure, bringing into sharp focus, the need for a sector-specific policy for the agricultural sector.

Going forward, there is the need to develop an agriPPP policy/strategy document that will be tailored towards the peculiar characteristics of the agriculture sector. Furthermore, there is the need for education and sensitisation of the general public on PPPs in the country if government desires to reap the replete benefits of PPP arrangements. The rationale for setting up the Ghana Incentive-Based Risk-Sharing System for Agricultural Lending (GIRSAL) is good and should be supported. The government of Ghana must continue to create the enabling environment to attract private sector resources and expertise into the agriculture sector, including the development of land banks for agriculture.

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Acronyms

ADB	Asian Development Bank
AESD	Agriculture Engineering Services Directorate
AGRA	Alliance for Green Revolution in Africa
AgriPPPs	Agricultural PPPs
AMSEC	Agricultural Mechanisation Service Enterprise Centres
BoG	Bank of Ghana
BOT	Build-Operate-Transfer
CAADP	Comprehensive African Agriculture Development Programme
CSF	Critical Success Factors
DBO	Design-build-operate
EIU	Economist Intelligence Unit
FAO	Food and Agriculture Organisation
FDI	Foreign Direct Investment
GCAP	Ghana Commercial Agriculture Project
GCX	Ghana Commodity Exchange
GDP	Gross Domestic Product
GIDA	Ghana Irrigation Development Authority
GIRSAL	Ghana Incentive-Based Risk-Sharing System for Agricultural Lending
GoG	Government of Ghana
GSGDA	Ghana Shared Growth and Development Agenda
GSS	Ghana Statistical Service
IDIs	In-depth Interviews
IFAD	International Fund for Agricultural Development
IFDC	International Fertiliser Development Centre
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
ISSER	Institute of Statistical, Social and Economic Research
IT	Information technology
JV	Joint venture
KIIs	Key Informant Interviews
METASIP	Medium Term Agriculture Sector Investment Plan
M&E	Monitoring and Evaluation
MLGRD	Ministry of Local Government and Rural Development
MoFA	Ministry of Food and Agriculture
MoF	Ministry of Finance
MoFEP	Ministry of Finance and Economic Planning
MoTI	Ministry of Trade and Industry
NEPAD	New Partnership for Africa's Development
NDPC	National Development Planning Commission
NRGP	Northern Rural Growth Programme
OECD	Organisation for Economic Co-operation and Development
PIDA	Programme for Infrastructure Development in Africa
PPP	Public Private Partnerships
SDGs	Sustainable Development Goals
USAID	United States Agency for International Development

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1. Introduction

1.1. Background

The Ghanaian economy, which is predominantly agrarian, is dominated by smallholder farmers who cultivate mainly on subsistence basis. The total land area of Ghana is 23,884,245 ha, of which 13,600,000 ha, which constitute more than half (56.94%) of the country's total land area is designated for agricultural purposes. Unfortunately, only 47.22 percent of the total agricultural land of the country is currently being cultivated (MoFA, 2016). This implies that more than half of the country's agricultural land potentials is currently not being harnessed. Despite the abundance of agricultural land resources in the country, most of the farmers in Ghana cultivate on land sizes of less than 2 ha. Agriculture activities in Ghana employ rudimentary technologies, and agriculture is mostly rainfall-dependent with only 3.4 percent of the country's total agricultural land under irrigation (MoFA, 2016). These have grave implications for agriculture productivity in the country.

The Ghanaian agriculture sector currently provides employment for close to half of the country's workforce, serves as the main livelihood source for the majority of the population, accounts for one-fifth of the country's GDP, and supplies raw materials to two-thirds of the country's non-oil manufacturing sector (World Bank, 2018). These crucial roles of the agriculture sector in the economy has made it feature prominently in most national policy documents. Ghana is a signatory to the Maputo declaration of African heads of states and government in 2003, who agreed to allocate at least 10 percent of national budgetary resources to support the agriculture sector of their respective countries to stimulate annual agriculture growth rate of 6 percent by 2008. However, compared to regional and international standards, public sector support for agriculture in Ghana has been low and has even declined in recent times.

According to the World Bank (2018), between 2001 and 2014, only 5.2 percent of the country's total expenditure was allocated to the agriculture sector. This explains the fluctuations in the growth rate of the sector over the years. On average, the agriculture sector of Ghana grew by 4.2 percent between 2007 and 2017, which is below the annual target of 6 percent. Budgetary support for the sector worsened in 2011 (World Bank, 2018) and that led to the lowest growth rate of 0.8 percent. This raises questions of government's ability to adequately finance the sector to make the needed socio-economic impact in the economy.

A sustainable solution to adequately financing the agriculture sector is a collaboration between government and the private sector. There is the need for government to collaborate with the private sector in raising adequate funds to boost growth in the agriculture sector. It has been empirically established that growth in the agriculture sector is more effective in reducing poverty among the poorest in society, since most of them are engaged in agriculture (Honorati and Johansson de Silva, 2016). It has further been reported in the New Alliance and Grow Africa Joint Annual Progress Report 2014-2015 that GDP-led growth in other sectors of Sub-Saharan Africa is 11 times less effective in alleviating poverty compared to agriculture-led growth.

1.1.1. **Overview of the agriculture sector**

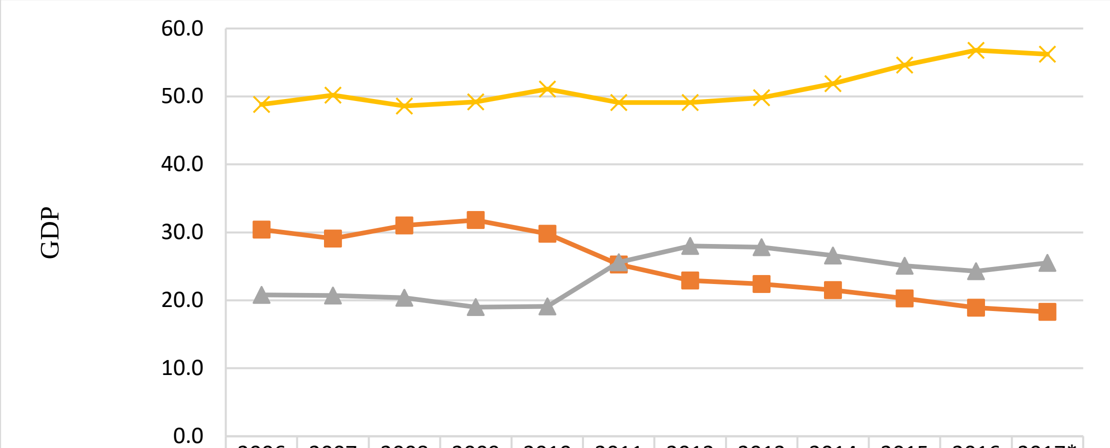
Ghana, a lower middle-income country in Sub Saharan Africa, has a population of about 29.46 million people (World Population Review, 2018). The prime drivers of economic growth of the Ghanaian economy are the services, industry and agriculture sectors. Although the contribution of the agricultural sector to Ghana's GDP has been dwindling in recent times, the sector continues to maintain its relevance to the Ghanaian economy as it is expected to spearhead economic growth and structural transformation and further rake in the gains of accelerated growth (MoFA, 2010). In 2016, the services, industry and agriculture sectors contributed 56.2 percent, 25.5 percent and 18.3 percent respectively to the country's GDP (GSS, 2018).

Beyond its well-known contributions to the Ghanaian economy as the main source of employment generation, food security, foreign exchange generation and raw material supply to industry, the agriculture sector of Ghana has made greater impact on poverty reduction than other sectors of the Ghanaian economy (MoFA, 2007). Until 2011, the agriculture sector was the second largest contributor to the country's GDP after the services sector. Since 2010, the contribution of the agriculture sector to GDP has been declining, from its peak of 31.8 percent in 2009 to 18.3 percent in 2017 (Figure 1). This continuous decline according to the Institute of Statistical, Social and Economic Research (ISSER) (2017), is a result of the rapid growth of the services and oil sectors of the economy. Provisional GDP estimates by the Ghana Statistical Service (GSS) for 2017 revealed that the agriculture sector attained a growth rate of 8.4 percent, which was higher than the 4.3 percent recorded by the services sector but lower than the 16.7 percent of the industry sector. All sub-sectors of agriculture grew in 2017, except forestry and logging, which declined from 2.5 percent in 2016 to 1.6 percent in 2017. The cocoa subsector recorded the highest growth of 17.3 percent in 2017, as against its contraction of 7 percent in 2016. Overall, the Ghanaian economy grew by 8.5 percent in 2017 compared to the 3.7 percent of 2016 (GSS, 2018).

In terms of employment, the agriculture sector employs about 44.3 percent of the currently employed population compared to the 9.1 percent employment in the manufacturing sector (GSS, 2014). The largest occupational sector of the economy is skilled agriculture, forestry and fishery sector. In recent times, the sector is engaging 3.3 million of the currently employed population of the country, as against the 1.9 million and 1.2 million engaged in the wholesale and retail trade, and the manufacturing sectors respectively. In most regions of the country, skilled agriculture, forestry and fishing is the main occupation for majority of the employed population, and this sector employs 61.8 percent of the rural folks according to the GSS (2016).

Notwithstanding the pivotal contribution of the agriculture sector to the economy, the sector has not received the needed attentions. The sector has been plagued with myriads of challenges which repress its growth and development. For instance, agriculture in Ghana is largely a smallholder activity and the level of mechanisation of the country is inadequate, constraining farm families to rely on traditional tools such as cutlasses, hoes and animal drawn implements (MoFA, 2016). Additionally, most farming communities are encumbered with the challenge of inadequate infrastructure, over-reliance on erratic rainfall for farm production, lack of access to advanced technologies and modern farm equipment, inter alia.

Figure 1. Sectoral contributions to GDP in Ghana, 2006-2017



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*
Agriculture	30.4	29.1	31.0	31.8	29.8	25.3	22.9	22.4	21.5	20.3	18.9	18.3
Industry	20.8	20.7	20.4	19.0	19.1	25.6	28.0	27.8	26.6	25.1	24.3	25.5
Service	48.8	50.2	48.6	49.2	51.1	49.1	49.1	49.8	51.9	54.6	56.8	56.2

Notes: *Provisional (annual)
Source: GSS (2018)

According to Oxfam (2014), most of these challenges can be attributed to the absence of investments in agricultural support services. The agriculture sector of Ghana received one of the least (4 FDIs) foreign direct investments (FDIs) in the first three quarters of 2016 compared to the services and manufacturing sectors, which received 50 and 30 FDIs respectively (Okudzeto *et al*., 2017). Although there is documented evidence that investment in agriculture has the impetus to lift a lot of people out of poverty than in other sectors (Oxfam, 2014), successive governments of Ghana have underinvested in the country's agricultural sector relative to the other sectors over the years. Public spending on the agricultural sector of Ghana has been declining despite the government's acknowledgement of its critical role in national development. With the incessant decline in public sector support for the agricultural sector, public private partnerships (PPPs) provide an alternative option for the government to raise the needed investments in the agricultural sector.

1.1.2. Overview of agricultural PPP environment

The Government of Ghana (GoG) has identified PPPs as a germane mechanism for addressing some of the prime challenges to agriculture development in the country. This is because of the fiscal constraints on government budgetary allocations to the agriculture sector in overcoming some of these multifaceted challenges of the sector. Thus, the government is encouraging the use of PPPs as a tool for leveraging public and private sector resources and expertise in addressing the challenges facing the agriculture sector. These challenges include, among others, poor delivery of public services, weak institutional capacities and operational inefficiencies (Sarpong and Anim-Somuah, 2015).

The GoG has exuded its commitment in collaborating with the private sector by adopting a national policy on PPPs in 2011. Ghana's national policy on PPPs seeks to guide all aspects of the PPP project development and implementation, ranging from project identification, appraisal and selection, to procurement, operation and maintenance, and performance monitoring and evaluation (MoFEP, 2011). According to this policy document, *"any contractual* *arrangement between a public entity and a private sector party with clear agreement on shared objectives for the provision of public infrastructure and services traditionally provided by the public sector"* is a PPP (MoFEP, 2011).

The Government's attempt to create the enabling environment for PPPs to thrive in Ghana has led to the successful implementation of PPP projects in other sectors relative to the agriculture sector, which many private sector individuals regard as risky. The high level of perceived and actual risk associated with agriculture, especially in developing countries, dissuade private individuals from investing in the sector (FAO, 2013). Presently, with technical support from the Alliance for Green Revolution in Africa (AGRA) and the Ministry of Food and Agriculture (MoFA), the Bank of Ghana (BoG) in October 2016 launched a risk-sharing scheme known as the Ghana Incentive-Based Risk-Sharing System for Agricultural Lending (GIRSAL). The aim of this scheme is to attenuate the potential and real risks associated with agriculture and agribusiness financing in Ghana, and to further crowd in private sector resources into the agriculture sector (MoFA, 2017).

The GIRSAL financing model is built on six pillars, namely the risk-sharing facility, technical assistance, digital platform, bank rating scheme, insurance facility and rewarding systems. The risk-sharing facility seeks to establish a suitable instrument aimed at mitigating the high risk associated with lending to agriculture and its related businesses. A seed capital of 100 million Ghana cedis has been pledged by the Central Bank in support of this facility. The technical assistance pillar looks at building the capacity of commercial banks and other private financial institutions to be able to assess and price agricultural-related risks, develop innovative mechanisms for recovering loans, and to further provide technical support to farmers and those engaged in other agricultural-related businesses.

The digital platform pillar seeks to facilitate the swift delivery of cheap financial services to rural regions and other financially excluded groups in the country using innovative mobile phone-based technologies to provide banking and other digital financial services to farmers. The bank rating scheme pillar provides ranking for all banks in relation to the amount and effectiveness of their lending to agriculture and agribusiness. This is expected to serve as an incentive for private financial institutions to strive in contributing to agriculture and agribusiness financing in the country.

The agricultural insurance facility is meant to provide insurance packages for value chain actors in the agriculture sector, and this is expected to lower the potential and actual risks associated with agriculture and agribusiness in Ghana. The rewarding system for banks' pillar is an incentive mechanism established to reward financial institutions that perform well in the GIRSAL bank rating scheme[1]. These are some of the measures government is putting in place to create the enabling environment for the private sector to invest in agriculture and agribusiness in Ghana.

An assessment of Ghana's PPP environment by the Economist Intelligence Unit [EIU] (2015) ranked the country tenth among the fifteen African countries that were examined, with an overall score of 43 percent. Ghana obtained very weak scores in indicators such as institutional framework (41.7%), operational maturity (34.4%), financial facilities (38.9%) and sub-national adjustment (25%). Although the country performed relatively well in indicators

[1] Government of Ghana: http://ghana.gov.gh/index.php/media-center/features/3186-girsal-to-boost-agriculture- for-economic-growth-and-development

such as regulatory framework (50%) and investment climate (58.1%), the low overall score recorded by the country ranked the country's PPP environment as an emerging one.

1.2. Problem statement

Leveraging of governments' assets and resources in attracting private sector capital and investment into some critical sectors of the economy has been identified as an effective mechanism for promoting development. In situations where government resources and expertise are not sufficient to provide public infrastructure and efficient services, PPP arrangements come in handy. The concept of PPP is not new. It has been applied globally by different governments in raising capital to support strategic sectors, especially infrastructure development.

Different PPP arrangements determine the level of private sector involvement. PPP can take the form of management and operating arrangements, leases/affermage, concessions, build-operate-transfer (BOT), design-build-operate (DBO), joint ventures and partial divestiture of public assets. PPP is an integral component of Ghana's strategic framework for national development [i.e., Ghana Shared Growth and Development Agenda (GSGDA II)]. In the GSGDA II, PPP arrangements are projected as catalysts for economic development. Currently, there is a national policy on PPP (MoFEP, 2011[2]). The policy is to help among others streamline PPP arrangements and create an environment for PPP to thrive.

Ghana's PPP arrangements have been dominated by infrastructure and energy projects like the Tema Port expansion project (including the Motor way) and some of the thermal plants in the Takoradi enclave respectively. In terms of agriculture, the cash crop sector (oil palm and rubber) has seen some level of PPP arrangement under the Ministry of Food and Agriculture (MoFA). However, policy makers equally acknowledge the important role of private sector investment in the food crop sector. Private capital is needed in the provision of machinery, better technology, improved inputs, agribusinesses, irrigation and storage facilities. Additionally, a well-planned PPP model in the food crop sector provides entry points where gender equity can be addressed, particularly value chain where gender-specific roles can be easily identified. It is in this direction that the METASIP II programme has as one of its themes: increased growth in income. The success of this theme is underpinned by promoting private sector investment in agriculture to promote quality investment in the sector (MoFA, 2015[3]).

Notwithstanding the efforts to modernise the sector, challenges persist. The agriculture sector continues to be underfunded and served. The bottlenecks continue to hinder the full potential of the sector. Although PPP programmes in the Ghanaian agriculture sector have not made the expected impact, MoFA still consider PPPs as integral to the modernisation of the agriculture sector. Recent discussions with staff of the Policy Unit of MoFA point to the need for private capital injection into the sector at the various stages of the supply chain. Also, new government interventions like one district-one factory, planting for food and jobs, and the fertiliser subsidy programme have the private sector leading the way. This is an opportunity for government to leverage its resources to attract private capital and expertise.

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[2] Ministry of Finance and Economic Planning (MoFEP), 2011. *National policy on public private partnerships (PPP)*. June 2011, Accra-Ghana.

[3] Ministry of Food and Agriculture-Ghana [MoFA]. (2010). *Medium Term Agriculture Sector Investment Plan II (METASIP II)*. Accra, Ghana.

1.3. Research objectives

The objectives that this study seeks to achieve are stated in the following two sub-sections of the study.

1.3.1. Main objective

The main objective of the study is to identify the key factors that drive the development of effective and sustainable agriculture sector PPPs, and to develop guidelines for key stakeholders (public, private, developing partners) in the development of effective and sustainable agriculture sector PPPs in Ghana.

1.3.2. Specific objectives

The key specific objectives of the study are:

i. To identify the different PPP typology for agriculture in Ghana, especially those which have representation at the macro, meso and micro levels, indicating the public and private partners and the rationale for each model.
ii. To undertake an analysis of the different roles and strategies/approaches employed in the implementation of different agricultural PPPs and their financing structure.
iii. To describe the key factors that drive successful agricultural PPPs, and the mitigating factors.
iv. To provide detailed analysis of country PPP policies and institutional framework for the governance and management of AgriPPP in the country that have enabled or hindered their success in Ghana as compared to international best practices.
v. To make recommendations regarding the approaches and roles for GOG, private sector, and development partners in designing and implementing sustainable agriculture sector PPPs.

1.4. Justification/purpose for the study

Increasingly, PPPs are being used as an attractive mechanism to crowd in private sector resources into agriculture for the development of agricultural value chains. This has become necessary, particularly in developing countries where although agriculture development is seen as a precondition for socio-economic development, public sector support for the agriculture sector has interminably been inadequate. When well designed, agriculture sector PPPs can be used to mobilize private sector resources to drive productivity and growth in agriculture.

Additionally, agricultural PPPs can help modernise agriculture by enhancing farmers' access to innovative technologies, knowledge, efficiency and of delivery of rural infrastructure and services, and further improve farmers' access to markets, inter alia. Despite these potential benefits, such partnership arrangements are very rare in the agriculture sector of Ghana relative to other sectors of the Ghanaian economy. Generally, this is because of the limited knowledge on agriculture PPPs in the country and the high-level of real and perceived risks associated with doing business in the agriculture sector of Ghana.

This study intends to highlight the efforts of government in mitigating the effects of potential and actual risks of doing business in the Ghanaian agricultural sector. Even though PPPs have been highlighted in the country's Medium-Term Agriculture Sector Investment Plan, 2011-2015 and the Ghana Shared Growth and Development Agenda II, 2014-2017, the country is yet to reap the full benefits of PPPs especially in the agriculture sector.

The findings of this study will make known the key drivers of successful PPPs in the agriculture sector of Ghana and the factors that impede the successful implementation of agricultural PPPs in the country. These are expected to aid decision-making by government, development partners, investors and other private sector individuals who may find these research findings useful. Furthermore, by developing guidelines for the public sector, private sector and development partners, the empirical findings may help facilitate PPP arrangements in the agriculture sector. Considering the peculiar nature of agriculture in Ghana, there is the need to highlight these peculiar characteristics and suggest ways of overcoming the bottlenecks identified in the sector.

Hence, the results from this study are also expected to guide policymakers and PPP practitioners in designing effective and sustainable PPP working documents that will aid the effective implementation of the PPP agenda. Ghana has priority areas as far as PPP arrangements are concerned in the country. These include roads and railways, water supply, power generation, public safety, large-scale housing development, and healthcare and sanitation (Government of Ghana [GoG], 2015). The results of this study are expected to enhance the understanding of the potential benefits of agriPPPs and to further present the opportunities in the agriculture sector that can qualify it as one of these priority areas.

2. **Literature review**

This section reviews relevant literature on the global concept of PPPs and the need for such partnership arrangements in Africa. It further presents some emerging issues on PPPs in the agricultural sector.

2.1. The global concept of PPPs

The quantum of investment required to bridge the infrastructure gap of most economies around the world, especially those of emerging countries, is enormous and cannot be provided by governments alone. This makes it imperative for governments around the world to collaborate with the private sector for the provision of such public infrastructure and efficient services. Thus, the concept of Public-Private Partnerships (PPPs), which seeks to introduce private sector resources and/or expertise in providing public sector assets and services. The Sustainable Development Goal 17 of the United Nations called for partnerships as a key strategy for the attainment of all the other global goals, demonstrating its relevance to contemporary times.

Generally, the term is used to describe a wide range of working arrangements, from loose, informal and strategic partnerships, to design, build, finance and operate type of service contacts and formal joint venture companies. There is no universally accepted definition for PPPs, but based on the jurisdiction, different terminologies are used to describe the nature of the arrangements that constitute a PPP (World Bank, Asian Development Bank and Inter-American Development Bank, 2014). The lack of consensus on what constitutes a PPP sometimes makes it onerous for a comparative assessment of the concept to be done across different sectors and countries. However, researchers and PPP practitioners have come up with some key indicators which could be used to differentiate PPP projects from other types of projects.

According to the World Bank, Asian Development Bank and Inter-American Development Bank (2014), PPP is defined 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 Organisation for Economic Co-operation and Development (OECD, 2008), also define PPP as *"an agreement* *between the government and one or more private partners (which may include the operators and the financers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners".*

The International Monetary Fund (IMF, 2006) further referred to PPPs as *"arrangements where the private sector supplies infrastructure assets and services that traditionally have been provided by the government"*. These definitions are however skewed towards the provision of public infrastructure such as roads, railways, airports, etc.

For the agricultural sector, the Food and Agriculture Organization of the United Nations (FAO, 2016) defined AgriPPPs or PPPs for the agricultural sector 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 lifecycle*.

Following from these definitions, it is evident that all PPP arrangements, irrespective of the sector where it is implemented, share certain common attributes. According to the Asian Development Bank (ADB, 2015), all PPP arrangements have three core characteristics, and these are:

i. a contractual arrangement that specifies the responsibilities and roles of each party,
ii. a reasonable sharing of risk among the public and private partners involved, and
iii. monetary rewards to the private entity that is commensurate with the attainment of the desired public policy outcome(s).

Whilst the OECD (2008) identified the transfer of a significant amount of risk as a key distinguishing feature of PPPs, the IMF (2006) also identified private implementation and financing of public investments, service delivery, as well as private sector investment and the transfer of a significant proportion of risk from the public sector to the private sector as the prime characteristics of PPPs. Hence, the definition of a PPP broadly needs to take into account the quantum of risks and responsibilities that are transferred to the private sector under a long-term relationship. Although PPP arrangements are possible in all sectors for infrastructure development and efficient service delivery, the most common sectors where PPP projects have been the norm globally include: roads, power generation and distribution, railways, stadiums, water and sanitation, housing, prisons, hospitals, refuse disposal, school buildings and teaching facilities, pipelines, air traffic control, billing and other information technology systems (Felsinger, 2011).

According to FAO (2016), the application of the PPP concept to the agriculture sector is a relatively nascent phenomenon, unlike other sectors such as infrastructure, health and education. In recent times, AgriPPPs are being encouraged owing to their enormous potential to aid the achievement of sustainable agriculture development goals. For AgriPPPs to be successful and meet their intended purposes, there is the need to create the enabling environment for them to thrive and to adopt the right governance strategies during the implementation of such partnerships (FAO, 2016).

2.2. The need for PPPs in Africa

According to Mafusire et al. (2010), an estimated $93 billion is required yearly from 2010 to 2020 to meet the extant deficits in Africa's infrastructure needs. However, only $45 billion per annum, which constitute close to half of what is actually required, is currently being spent on Africa's infrastructure needs. This presents a colossal investment opportunity for private sector individuals and development partners in collaborating with governments across Africa to bridge this infrastructure gap. The development of Africa's infrastructure base has become very crucial for three main reasons: enhancing the competitiveness of the continent, facilitating both international and domestic trade, and improving the integration of the continent into the global market (Mafusire et al., 2010). The quest to bridge the infrastructure gap in various African countries and on the continent has led to several continental infrastructure initiatives, such as the New Partnership for Africa's Development (NEPAD) Short-Term Action Plan, the NEPAD Medium-to-Long-Term Strategic Framework, the African Union Infrastructure Master Plans, the NEPAD Infrastructure Project Preparation Fund, Infrastructure Consortium for Africa, the EU-Africa Partnership on Infrastructure, and the Programme for Infrastructure Development in Africa (PIDA).

In the agriculture sector, regional and continental initiatives such as the Comprehensive African Agriculture Development Programme (CAADP), the New Alliance for Food Security and Nutrition, the Grow Africa initiative, the African Agribusiness and Agro-Industries Development Initiative, and Country Agribusiness Partnerships Framework are some of the notable initiatives aimed at introducing private sector investment into the agriculture sector. For instance, CAADP, which is part of the NEPAD initiative, was adopted by African heads of states and governments in 2003 in Maputo to demonstrate their commitment to the need to pursue agriculture development for its comprehensive benefits. The CAADP initiative seeks to use agriculture as a strategic weapon against hunger and food insecurity, and to further attain poverty reduction on the continent by promoting investment in the agriculture sector of member countries.

The pursuit of CAADP's overall goal has led member states to commit to two key targets; to increase the productivity of agriculture annually by at least 6 percent by 2008 and to allocate at least 10 percent of their national budgetary resources to agriculture by 2015. Although the share of spending on agriculture between 2000 and 2005 increased significantly by 75 percent, only 8 countries had met or surpassed the 10 percent target of public expenditure on agriculture by 2009. In 2008, only 10 member States recorded a yearly agricultural productivity growth rate of at least 6 percent (NEPAD, 2011). These indicate that the overall goal of CAADP has not been achieved by all member States. There is therefore the need to further mobilize resources from the private sector and development partners if CAADP is to realise its goal for the continent.

The New Alliance for Food Security and Nutrition initiative was launched in 2012 with the aim to reaffirm the incessant support of donor agencies to Africa's strive against hunger and poverty, and to promote the implementation of CAADP's key components by leveraging private sector resources for the attainment of development goals. At the G-8 summit of 2012, members, cooperate leaders and African heads of States agreed to raise 50 million persons out of poverty by 2022 in Sub-Saharan Africa and to promote agriculture-led growth that is sustainable and inclusive of smallholders in Africa. With support from Grow Africa, the New Alliance pursues its objectives by creating a platform through which various sectoral partners can collaborate to achieve CAADP's goal. Since agriculture-led growth is estimated to be 11 times more effective in alleviating poverty than GDP-led growth in other sectors, there is the urgent need to mobilise resources from all partners to fulfil the goals of CAADP.

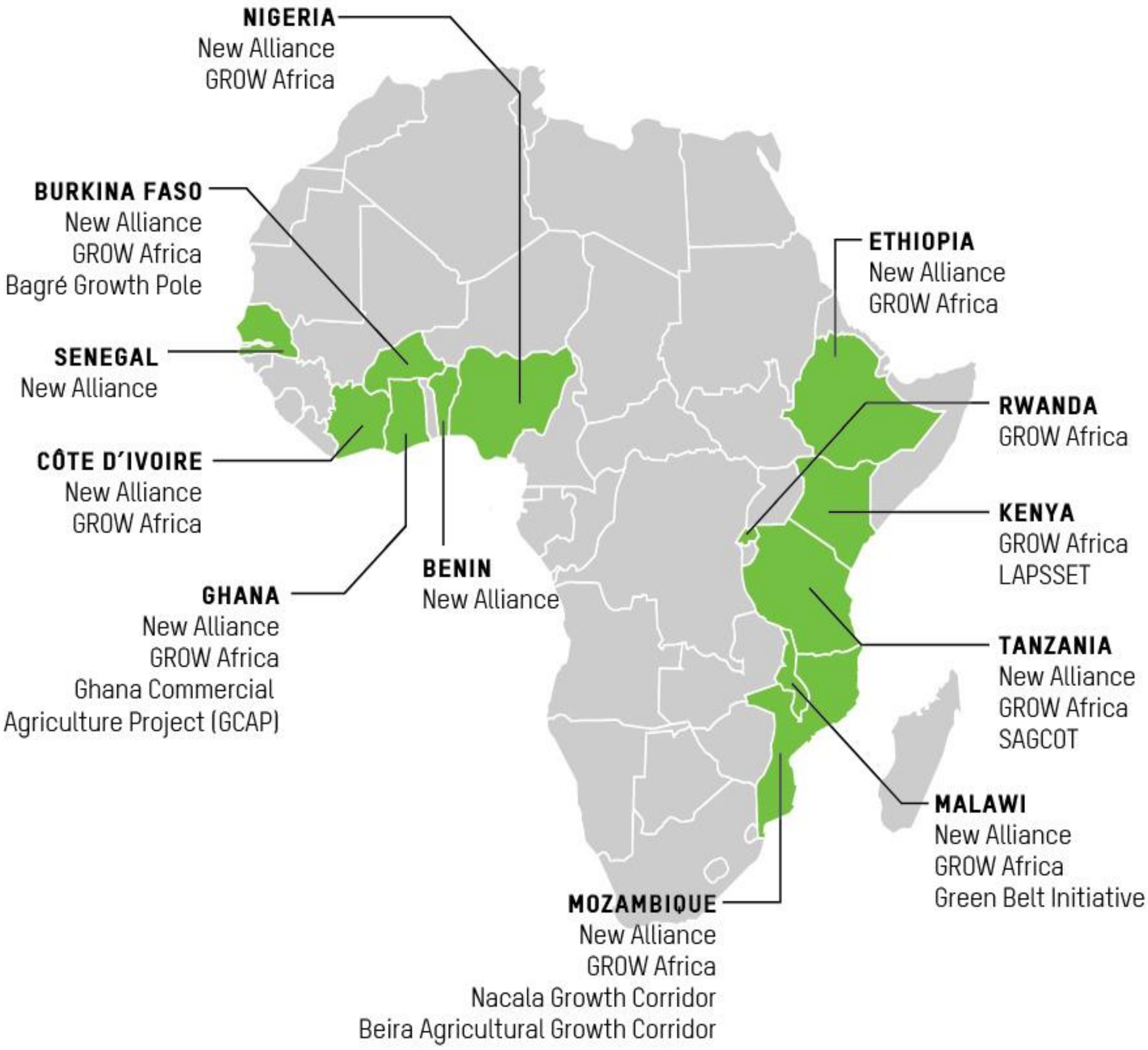
The Economist Intelligence Unit (EIU, 2015) gauged the capacity and readiness of 15 African countries to implement effective and sustainable PPP arrangements in the transportation, water and energy sectors. These countries were assessed using indicators such as legal and regulatory framework, institutional framework, operational maturity, investment climate, financial facilities and sub-national adjustment factors. South Africa, with an overall score of 70.7 percent has the most favourable PPP environment in Africa, followed by Morocco and Kenya with overall scores of 51.8 percent and 51.4 percent respectively. The findings further revealed that 10 out of the 15 countries studied had PPP related legal frameworks in place, whilst others have also made progress in PPP related laws and policies.

A concrete roadmap towards PPP frameworks is however missing in the Democratic Republic of Congo and Angola. According to the EIU (2015), although African countries have very strong PPP laws on paper, these laws are not effectively implemented and some countries also lack the capacity to execute their regulatory provisions. The strength of any country's PPP environment is determined by their ability to execute PPP arrangements at both sub-national and national levels (EIU, 2015). African economies, which are predominantly agrarian, need innovative partnerships to deliver the right infrastructure and the efficient services required for agricultural development and poverty reduction. However, such partnerships are lacking in the agricultural sector of most African countries due to the myriad of challenges that confront the sector. The sector has been bedevilled with land litigation, bureaucratic processes, lack of adherence to technical advice by farmers, high levels of risk and low returns on investments (FAO, 2013), inter alia. These drive away potential partners who are conscious of the security of their investments.

2.3. Some PPP initiatives in the agriculture sector in Africa

Various countries on the continent are engaged in various PPP initiatives to promote agriculture production and productivity. A number of African countries are developing agriculture growth poles, corridors and clusters to attract private capital into the sector. Agriculture growth poles are a cluster of firms/businesses in a given geographical area, operating in a coordinated manner on the production, processing and commercialisation of given agricultural products in a self-sustaining way. Growth poles usually make use of both public and private capital. The public sector normally provides the geographical location and basic infrastructure to attract the private sector who will come on board to setup their operations. The hope is, these growth poles will have a multiplying effect on neighbouring communities and other sectors, ultimately translating into economic development (Oxfam France, AAH and CCFD-Terre Solidaire, 2017). Figure 2 presents countries where these types of arrangement are currently existing.

Figure 2. Countries in Africa with mega-agriPPP arrangements



Source: Oxfam, 2014

Also presented in appendix A4 is the list of projects or strategies for developing agricultural growth poles or corridors in Sub-Saharan Africa. The description of two of such projects are presented below. They are: Southern Agricultural Growth Corridor of Tanzania (SAGCOT) and Bagré growth pole project (PPCB) in Burkina Faso. The operations of the projects and the challenges they face in its implementation are presented.

Case study 1: Southern Agricultural Growth Corridor of Tanzania (SAGCOT)

Southern Agricultural Growth Corridor of Tanzania (SAGCOT)

SAGCOT is a programme started in 2010 by the Government of Tanzania to attract private capital into the agricultural sector. The programme is structured as an international PPP arrangement. The target of the government is to attract about $2.1 billion from the private sector in terms of agribusiness investments while the government will contribute about US$1.3 billion in terms of facilitating investments in infrastructure and related public goods (World Bank, 2017[4]). The aim of SAGCOT is to "*deliver rapid and sustainable agricultural growth with major benefits for food security, poverty reduction and reduced vulnerability to climate change*" (AgDevCo and Prorustica, 2011[5]).

The partners of this programme include; the World Bank, African Development Bank (AfDB) and Japan International Cooperation Agency (JICA). The geographical area of the project is approximately 5 million hectares of arable land in the Central and Southern Highlands regions of Tanzania. Over the next 20 years, the government expects the programme will be able to bring about 350,000 hectares of farmland into commercial production for national, regional and international markets and lift more than 2 million people out of poverty (URT, 2013[6]).

As part of realising the objectives of the project, the World Bank Board of Executive Directors approved US$70 million SAGCOT Investment Project (SIP). This support is to strengthen the linkages between smallholder farmers and agribusinesses to boost incomes and job-led growth. About 100,000 smallholder farming households are expected to boost their incomes under the SIP. Also, land rights and titles, and Indigenous Peoples Policy are part of the SIP (World Bank, 2017).

In the mist of the laudable intentions of the SAGCOT programme, there is another school of thought that argues about the effectiveness of this type of arrangement. They argue that the structure of the programme presents multiple risks for smallholder farmers, rural communities and the environment. Issues are raised about whether the project is driven by government or the private sector and what their interest are. One of the major concerns raised is about the PPP arrangement currently in place. The public sector carries out the initial investment usually by acquiring loans from donor and development agencies. Then secures the land for the project, grant tax waivers and the private sector comes in to develop the lands for themselves while accruing the profits (Oxfam France, AAH and CCFD-Terre Solidaire, 2017[7]).

Stakeholders consulted with knowledge on the SAGCOT project expressed a lack of faith in the PPP arrangement in place. Their concern is that the private sector is seeking to exploit the public sector while the private sector is also frustrated by government's inability to fulfil obligations in terms of providing the initial infrastructure for the project (West and Haug, 2017[8]).

Given the huge commitments by governments to these type of PPP arrangements, their effectiveness and contribution to poverty alleviation and promoting food security is still unclearly proven (Oxfam France, AAH and CCFD-Terre Solidaire, 2017).

[4] World Bank (2017). Southern Agricultural Growth Corridor of Tanzania (SAGCOT): Fact Sheet. March 7, 2017

[5] AgDevCo, & Prorustica, (2011). Southern Agricultural Growth Corridor of Tanzania Investment Blueprint. www.sagcot.com/uploads/media/Invest-Blueprint-SAGCOT_High_res.pdf.

[6] URT, (2013). (SAGCOT) Investment Project Public Notice. Re-disclosure of Environmental and Social Management Framework (ESMF). Dar es Salaam: United Republic of Tanzania.

[7] Oxfam France, AAH & CCFD-Terre Solidaire, (2017). African Agriculture: Agricultural growth poles, a dead loss. http://old.actioncontrelafaim.org/sites/default/files/articles/fichier/rapport_pcaa_page_page_gb.pdf

[8] West, J. & Haug, R., (2017) Polarised narratives and complex realities in Tanzania's Southern Agricultural Growth Corridor, Development in Practice, 27:4, 418-431, https://doi.org/10.1080/09614524.2017.1307324

Case study 2: Bagré growth pole project (PPCB) in Burkina Faso

Bagré growth pole project (PPCB)

The Bagré region in the South of Burkina Faso has enormous potential for agriculture production. Government has attempted to realise this huge potential through its own investment in the area and also through the involvement of the private sector. However, the expected successes were not achieved (Venot et al., 2017[9]). In 2011, the government of Burkina Faso and the World Bank launched the Bagré Growth Pole Project. This project is a PPP arrangement to attract private capital into the agriculture sector in the Bagré region. The project cost is about US$135 million. The project focuses on providing irrigated areas within the Bagré enclave that will promote broader socio-economic development (ibid). The African Development Bank has also supported the project with some funding.

The project is made up of three components. Namely; (i) institutional capacity building; (ii) development of critical infrastructure; and (iii) development of critical services and direct support to smallholders and small and medium size enterprises (SMEs). Component 2 will see the financing of remaining infrastructure to complement investments already made by the government of Burkina Faso. The expected infrastructure include; (i) design, construction and equipment of irrigation canals for the irrigation of about 15,000 hectares; (ii) works and equipment for livestock in the herding areas; (iii) works and equipment for conservation and processing of fish; and (iv) rehabilitation and construction of access roads to and within the irrigated area (World Bank[10]).

The project has faced a number of delays. Some of the targets set have been revised. For example, in 2012, the net irrigable areas was re-estimated to be about 11,500 ha based on the technical feasibility studies on the topography and soils characteristics. Furthermore, households affected by the project needed to be identified for compensation; environmental and social safeguard policies of the World Bank needed to be complied with, and inadequate initial feasibility studies of the topography which required a revision, all contributed to the delay in the project. This delays have resulted in higher project cost and more critically, smallholder farmers have not been able to cultivate their fields in the last 4 rainy seasons. Although progress has been made since the project started, the progress is not at the pace expected (Venot et al., 2017).

Some expected beneficiaries (smallholders) are not particularly impressed with the current status of the project. For instance, the project is to allocate just 1,600 ha of the about 11,000 ha to family farmers in the affected area. In the long run, about 64 percent of the developed area will go to "private developers". Also, there is the uncertainty about the resettlement mechanisms of the families in the area. There is also the problem of inadequate consultation between the project and the family farmers. The family farmers are alleging that their lands are been taken away from them without their consent. And government is not providing enough information on how they will be compensated and where they will get grazing land for their animals (Oxfam France, AAH and CCFD-Terre Solidaire, 2017[11])

[9] Venot, J. P., Daré, W. S., Kabore, E., Gérard, F., Tapsoba, A., Idani, D., & Carboni, S. (2017). Ideologies, development models and irrigated land tenure: the Bagré irrigation project in Burkina Faso. https://agritrop.cirad.fr/585367/1/VENOTetAl_Bagr%C3%A9%20Case%20study%20revised%20for%20sharingV3.pdf

[10] World Bank website. http://projects.worldbank.org/P119662/burkina-faso-bagre-growth-pole-project?lang=en

[11] Oxfam France, AAH & CCFD-Terre Solidaire, (2017). African Agriculture: Agricultural growth poles, a dead loss. http://old.actioncontrelafaim.org/sites/default/files/articles/fichier/rapport_pcaa_page_page_gb.pdf

2.4. Emerging issues in agricultural PPPs

The potential of the agriculture sector of most emerging economies can only be fully realized when the level of investment required by the sector is met. However, budgetary allocations of governments to the agriculture sector, especially those of developing countries, have continuously been inadequate, necessitating innovative partnerships in the sector to help meet these investment needs. AgriPPPs have been identified as essential catalysts for agriculture modernisation (FAO, 2016), but their implementation is not devoid of challenges. The FAO in their study on international experiences of PPPs for agribusiness development concluded that even though agriPPPs contribute significantly to development goals in agriculture, many outstanding issues related to their impact on inclusion and poverty reduction remain to be resolved in order to enhance their effectiveness (FAO, 2016).

Some of these critical issues include lack of transparency in contractual arrangements, allowing land-use rights over large tracts of land to investors at the expense of smallholders (land grabbing), market risks, inability to withdraw from out grower schemes, sustainability issues, large-scale agriculture also contribute to issues of climate change, lack of participation in decision making by producer groups and civil society organisations during the formulation of mega-PPPs, elite capture and gender issues (Oxfam, 2014). Additionally, issues regarding public administration, and lack of a holistic approach in supporting public sector entities in the partnership are critical issues that need attention (FAO, 2016).

The quest by some governments to release large tracts of land for large-scale agriculture by investors has led to the loss of land-use rights by smallholder farmers over their farmlands. Additionally, the payment of compensations for the transfer of land-use rights from smallholder farmers to investors is often opaque on the terms of payment in some of these mega-PPP arrangements. The affected farmers are scarcely consulted in negotiating their compensation packages and the terms of payment of such compensations. Most often the government engages the investors and whatever compensation package they decide on is given to the land owners without their inputs. There have been reported cases of government paying compensations not for the value of the land on which the smallholders cultivate their crops, but for the value of the crops on the land.

Also, in cases where farmers engaged in out grower schemes where they have contracts and buying arrangements with nucleus farmers, the terms and conditions of such buying arrangements and contracts are not transparent, and produce prices are mostly determined by the nucleus farmers. This leads to exploitation of the smallholders who are engaged in such opaque contracts and buying arrangements. There is the need for transparency and the involvement of smallholder farmers in negotiating their compensation packages prior to land-use rights being transferred to investors, and these should be documented, and each party involved made to sign. Oxfam (2014) recommended the need for all parties involved in mega-PPPs to reconsider issues of transparency, governance and accountability of existing mega-PPPs, and attention should be focused on improving smallholder participation and the disclosure of investments.

Large-scale agricultural PPPs tend to require large tracts of fertile agricultural land which are close to water sources for their operations at the expense of smallholder farmers (Oxfam, 2014). These massive agricultural investments by foreign investors are done for various reasons, some of which include improving the food security situation of their respective countries and for the production of energy (biofuel) for export, at the expense of the food security situation of the countries in which these crops are grown. The acquisition of large areas of land could take the form of a concession, a lease (which is often for 30-99 years) or an outright purchase of the land (Zoomers, 2010). According to Kachika (2010), evidence available in 2009 revealed that land deals entered by Ghana, Ethiopia and Mali involved 452,000, 602,760 and 162,580 hectares of land respectively. Most of these land deals with foreign investors were promoted by all means, by governments of the respective African countries in their quests to boost agriculture production and to attract foreign direct investments into their countries. Despite the legality of some of these deals, they tend to displace and dispossess smallholder farmers. The acquisition of large stretches of farm land by investors for the cultivation of food and energy for export may result in the dispossession of rural communities of their main livelihood sources, and this has implications for the fight against poverty and food insecurity in those African countries.

Large-scale land acquisition for agriculture purposes by foreign investors further pose challenges to the attainment of the goal 13 of the 2030 agenda of the Sustainable Development Goals (SDGs) of the United Nations. This goal called for immediate action against climate change and its impact which continue to threaten human existence on earth. The changing climate negatively affect the livelihoods of resource poor farmers and further impede their coping strategies. It also has grave implications for Africa's strive against food insecurity and extreme poverty and hunger, and the ability of the continent to achieve the goals 1 and 2 of the SDGs. Smallholder farmers in rural communities will be the first victims of the effects of the environmental risks of climate change. The transfer of land use rights to investors of vast area of land for large-scale agriculture production will result in the destruction of forest reserves and the natural vegetation cover of these areas.

Additionally, the search for fertile land for agricultural purposes for investors and smallholder farmers may also result in the disruption of ecosystems and biodiversity loss, which can significantly contribute to climate change. A study by the Intergovernmental Panel on Climate Change (IPCC, 2014) revealed that land use change resulting from agriculture, forestry and other land-use contributed 12 percent to the total global greenhouse gas emitted between 1990-2010. This demonstrates the danger that continuous deforestation and the disruption of the natural vegetation cover in search of farmlands for large-scale agriculture PPPs pose to human survival. The intensive cultivation of such farmlands, involving the use of inorganic chemicals which leach into water bodies, may impact the environment negatively. Immoderate use of land and water resources may lead to soil erosion and the scarcity of water.

Large-scale agriPPPs further pose market risks to smallholders by crowding them out of both domestic and international markets. The use of advanced production technologies by these foreign investors drive down their production costs, and they also benefit from economies of scale. Thus, they are able to sell their produce at cheaper prices, and the inability of the smallholder farmers to compete with them drives them out of the market. Doubt has also been raised about the sustainability of large-scale agriPPP out grower schemes because of the high costs of their operations. Should foreign investors pull out of financing such mega-PPPs, the question of whether such out-grower schemes can continue to operate needs to be considered. This further reveals the actual risks that farmers on such schemes are faced with (Oxfam, 2014). The exclusion of smallholders from the decision-making processes leading to such massive agricultural PPPs leaves much to be desired. This is due to the potential impacts that such large-scale acquisitions would have on their source of livelihoods. Also, some of these arrangements may prefer to work with only men, leaving out women and vice versa. This also raises concerns about how gender issues are included in some of these arrangements.

3. Methodology

This section presents the methodology of the study, which comprise the research design, research approach, sampling procedure and sample size, selected state institutions, development partners and PPP firms, and the method of data analysis.

3.1. Research design

A qualitative approach is adopted for this study. This approach is to afford the research team the chance to explore the subject matter of PPP in-depth. A desk review of literature is conducted to identify institutions and enterprises in Ghana involved in different aspects of PPPs and to have some fundamental understanding of the PPP environment. The identified institutions from existing literature were contacted, and interviews were scheduled. The interviews were conducted based on the objectives of the study and the functions of the various stakeholders. The interviews took the form of key informant interviews (KIIs) and in-depth interview (IDIs). This is to provide an opportunity to capture quality and detailed information on the subject matter.

The instrument used in gathering data was semi-structured interview guides. The interviews were recorded and subsequently transcribed. Given the non-exhaustive list of institutions and enterprises involved with PPP activities, incorporated in the research design is the snowball technique. The identified institutions and enterprises were asked to name any other institution involved in PPP activities that they were aware of. The named institutions were added to the sample of institutions to interview.

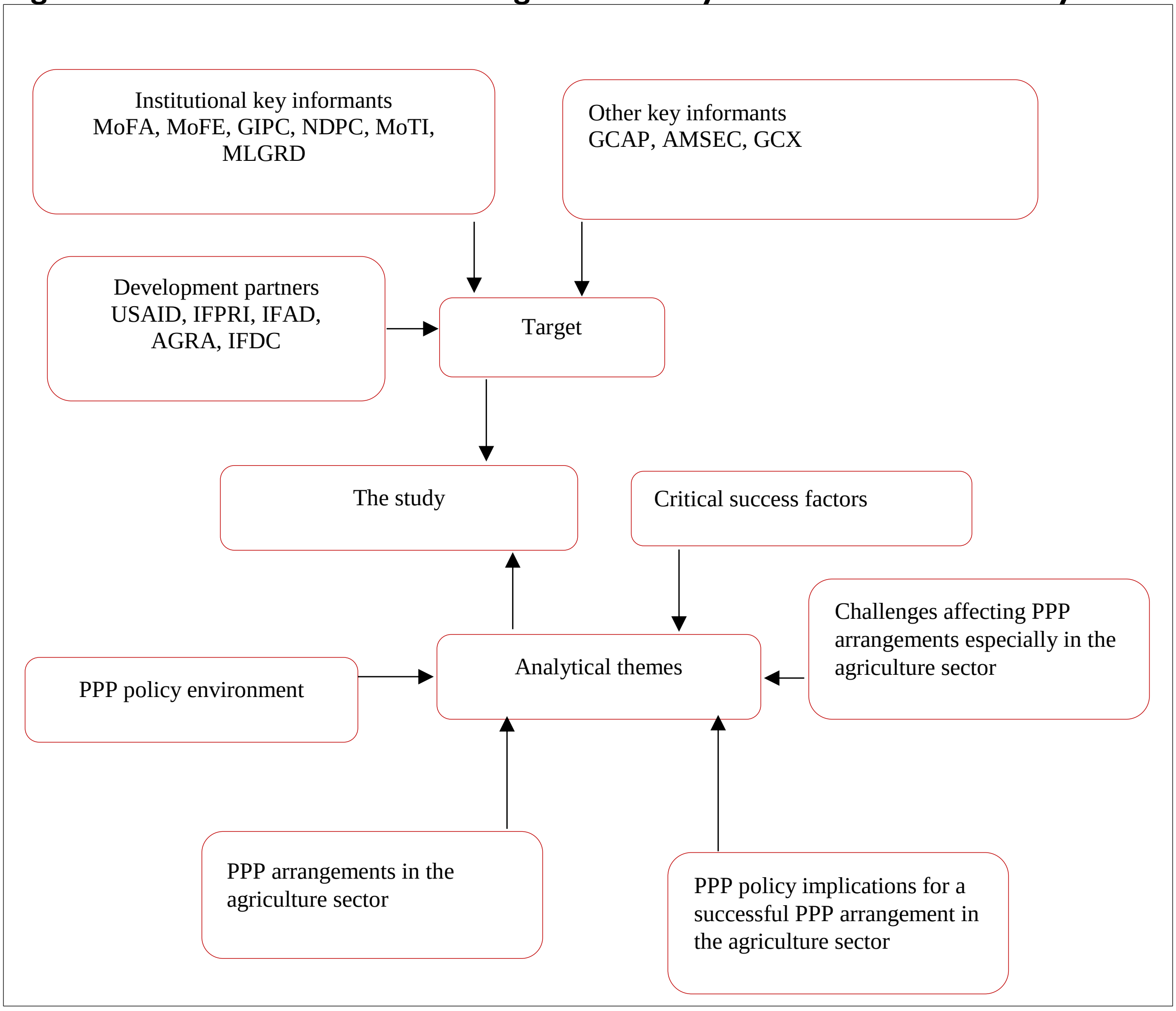
3.2. Sampling procedure and sample size

A two-staged sampling approach is used to recruit the relevant respondents (institutions, development partners, PPP firms) for this study. The first stage was institutions involved with PPP programmes and policies. These are mostly state institutions and development partners that are either involved in policy formulation, implementation or support. At this level, key informants from the selected state institutions and development partners were interviewed. Heads of PPP units, heads of policy units, PPP programme coordinators, heads of agriculture units responsible for PPP, etc were the targeted key informants in the selected institutions. Some specific issues to be addressed are PPP policy assessment, type of PPP arrangements, levels of investor participation and investment, local content, etc.

The second group of respondents (second stage of sampling) are enterprises operating as PPPs. These firms were purposively sampled for in-depth interviews to get a deeper understanding of their PPP structure and arrangements. Staff with relevant knowledge on the subject matter within each business were identified and interviewed. Specific issues like type of PPP arrangement, critical success factors, challenges, incentives, etc. were addressed. The analysis also involved, levels of investment, returns on investment, number of employees, number of beneficiaries, etc. Refer to appendix A2 for the list of state institutions, development partners and PPP related businesses interviewed.

The thematic network on targets and analytical themes of the study are presented in figure 2.

Figure 3. Thematic network on targets and analytical themes of the study



Source: Authors' construction

The sampling framework of the study is presented in table 1.

Table 1. Sampling frame for qualitative study

Level	Data collection tool	Number of interviews
State institutions involved with PPP policy	KIIs	8
Firms/organisations with PPP components	KIIs	3
Development partners	KIIs	6
Total		**17**

Source: PPP survey, 2018

3.3. Data collection and management

The data collected will help address the critical issue of PPP policy in Ghana with emphasis on the agriculture sector. Data was collected from February to March 2018. The qualitative data collection tools used in gathering the relevant data was key informant interviews (KIIs) and in-depth interviews (IDIs). These tools involved the use of semi-structured interview guides (see appendix A5 for samples of the interview guide). Two distinct interview guides were developed: state institutions and development partners, and PPP related businesses/projects. This will afford the team the opportunity to bring on board critical subjects that may come up within the interview. Due to the composition of the target group, majority of the interviews were based in Greater Accra Region.

All conducted interviews were recorded using audio recorders. Recorded audio files were transcribed verbatim into English. The research team validated all transcripts, this is to ensure the quality of the transcribed interviews. The transcribed interviews were uploaded into NVIVO 11 (Pro version). Communication cues were used during the verbatim interview transcriptions to capture the exact context of responses from participants. As part of the data management process, respondent identification was assigned to all respondents. This is to aid in respondent profiling. Some of the information to be captured include, gender, age, position within the organisation/institution and type of institution.

A team of experienced enumerators who have been properly trained were engaged for data collection process.

3.4. Data analysis

Thematic analysis will be used to analyse the coded data. Comparisons and other analytical tools in NVIVO will be used to present node-to-node similarities and or differences that become relevant after coding. The expectation is that at the end of the qualitative study, the critical success factors (CSFs) will be identified, the challenges affecting PPP arrangements highlighted and more critically, the policy issue implications for a successful PPP arrangement.

Also, the relationship among the different stakeholder in the PPP environment is presented. The nature of the relationship will also be highlighted.

4. Research findings

This section presents the results of the study and it is divided into five (5) sub-sections. The first sub-section presents a general overview of the concept of PPP and its key elements based on the perspective of the respondents. Each subsequent sub-section covers the analysis of the specific objectives of the study. The specific quotes of respondents on the different themes analysed are presented in appendix A1.

4.1. Concept of PPP and its key elements

The awareness and the general concept of PPPs are known and understood by all respondents. There is a fair understanding of what constitutes a PPP. However, the nature, form and key elements of a typical PPP arrangement/entity varies among the respondents.

The central theme that runs through the responses provided by the respondents is: PPP is a collaboration/arrangement between government/public entity and a private entity to attain or undertake a common goal or project which either party cannot undertake separately, or the opportunity cost of either party undertaking such a project is extremely high. Thus, the optimal decision will be a collaboration between the two parties.

Ghana has a national PPP policy document. However, it was very clear from the responses given that what is contained in the PPP policy document is very restrictive in terms of what respondents understand to be a PPP. Most of the respondents see the provisions in the national PPP policy document as being skewed towards the provision of public infrastructure, rather than the provision of efficient public services in areas where such services are needed.

It also came to light that what is defined as public/government should not only be restricted to funds/resources coming from the government of Ghana, but also funds/resources coming from governments of other countries or agencies working on behalf of other governments. This assertion particularly was espoused by development partner respondents who source some of their funds from their national governments. Thus, the government of Ghana may not directly or indirectly be involved in a project, however, by virtue of the fact that the resources are coming from other public/government agencies outside Ghana, that collaboration with the private sector in Ghana in their view is a PPP arrangement.

There was not a clear consensus on the key elements of a PPP arrangement. Responses on key elements ranged from risk sharing to having a common goal or interest. The most common key elements mentioned were common goal/interest, risk sharing, and binding agreement which stipulates the functions and responsibilities of parties. Other key elements mentioned were a clear definition of sanctions, contribution of parties to the partnership and commitment to the partnership.

4.2. Types of PPP models being operated in the agriculture sector of Ghana

The respondents raised issues about the uniqueness/peculiarities of the agriculture sector of Ghana, and how that has contributed enormously to the paucity of agriPPPs in the sector. They raised issues about how unstructured the sector is, and it being dominated by resource-poor smallholders. Thus, payment for essential services will be a challenge, and this is not attractive to investor and interventions in the sector.

In terms of respondents' knowledge of the types of PPPs, it was evident that the respondents have a fair knowledge about the various types of PPP models. Most of them readily mentioned the Build-Operate-Transfer model as a type of PPP. Some also mentioned service contracts as a type of PPP and provided examples of projects outside the agriculture sector that were deemed as PPP arrangements. The BOT model is hardly adopted in the agricultural sector of Ghana due to issues of payments of service charges by the smallholder farmers. However, on the whole, respondents could not mention other types of PPP models. They rather preferred to describe how those other models they are familiar with function.

The general response from the state institutions interviewed revealed that they are not directly involved in the implementation of any PPPs. Rather, their focus is on policy formulation and implementation. On the part of the development partners interviewed, the majority of them indicated that their involvement in PPP projects are mostly in the form of providing funds, facilitating the establishment of such projects by bringing the public and private partners, and mostly the beneficiaries together and further provide technical support for a successful PPP project implementation. Thus, they may not necessarily be partners, but they provide the financial support needed by the private partners to undertake the projects identified. For example, as captured by the AGRA M&E officer, AGRA is supporting the government of Ghana to secure seeds for farmers under the "Planting for Food and Jobs" programme.

The PPPs that were identified by respondents were mostly at the national (macro) level. Most of the projects are signed at the national level but are implemented at the regional (meso) and district (micro) levels. This is evident in the responses provided on how the projects were established, who the signatories were and the scope of the project. Some of the projects mentioned by respondents are presented below. See appendix A3 for an overview of the projects discussed below.

The AMSEC project is a national project where private sector investors who are interested in agriculture are sold tractors and farm implements at subsidised rates, so they can then rent them out to smallholder farmers who will need their services to plough their fields. Therefore, interested investors must apply to the Minister of Food and Agriculture through their regional and district directors of agriculture for the subsidized tractors and farm implements. It is the Minister who gives the final approval for an individual to purchase these tractors at subsidised rates. The tractors are then used in the districts specified under the monitoring of the district agriculture engineering services directorate. The rationale for the AMSEC programme is to provide smallholder farmers with tractor services that are accessible and affordable to boost their production levels.

The Northern Rural Growth Programme (NRGP) was also national (macro level) in nature. It was initially intended to be implemented in the three (3) northern regions of Ghana but ended up being implemented in nine (9) regions. The objective of the project was to increase smallholder farmers' income on sustainable bases. The focus was on the development of value chains for some selected commodities and also infrastructure development such as the construction of irrigation facilities. Four (4) private partners were selected who helped build the capacity of farmers in shea and guinea fowl production, and equally served as the buyers for these products from the farmers.

2Scale is a programme funded by the Dutch government in different Sub-Saharan African countries. Thus, the activities of 2Scale are considered PPP arrangements. 2Scale is an incubator for inclusive agribusinesses. They help private business individuals develop their business ideas. These business ideas must be inclusive enough to have a social and developmental impact. The business idea must demonstrate its ability to integrate smallholder farmers into their operations. In 2018, the programme is active in 6 countries, but in the past they operated in 12 countries. The programme runs two (2) PPP models. Namely; Value Chain Public Private Partnership and Agribusiness Cluster Public Private Partnership. These business models are to cater for both well established businesses that need support to expand, and also smallholder-based associations/groups that need some assistance for the mutual benefit of all members. The rationale for the 2Scale programme is to build networks that connect farmers, buyers and intermediaries, ultimately resulting in the creation and growth of new business that are inclusive.

The GCAP has been widely mentioned by respondents and also captured in the literature as a PPP project. However, according to the National Project Coordinator of GCAP, GCAP is not a PPP project. GCAP is 100 percent financed by the government of Ghana with a loan facility from the World Bank and a grant from USAID. However, the various activities/programmes undertaken by GCAP can be loosely described as PPP arrangements. This is based on the fact that GCAP does not go strictly according to the processes stipulated in the Ghana PPP policy document, but they try to apply the general principles/guidelines of PPP arrangements. GCAP ultimately wants to encourage farmers to go into commercial farming. This is to be achieved through easing access to land, water, warehousing and other resources they require to farm commercially.

The Ghana Commodity Exchange (GCX) is a platform/market that brings sellers and buyers together to trade in commodities. Currently, the GCX is a registered company and limited by shares. The government of Ghana presently, is the sole shareholder. Preparatory works are still ongoing to make the exchange fully functional. However, government acknowledges that, it cannot do it alone. Therefore, it is ready to collaborate with the private sector to optimise the benefits of a commodity market. The exchange is hopeful of trading in commodities like maize, beans, rice, millet, sorghum, cocoa, coffee, cashew, petroleum products, and minerals.

4.3. The roles played by stakeholders in financing agricultural PPP implementation

In a PPP arrangement, all parties (public and private) have unique roles and responsibilities. These roles and responsibilities are influenced by the overall goal of the partnership. The obligations of partners equally have a bearing on the financial structure of the enterprise. This comes in the form of how capital investments are made, equity and liabilities are shared, and their implications for risk sharing and the value of the business.

Smallholder farmers are the largest group of investors in the agriculture sector. But, they are equally among the poorest in the sector. Thus, they are the main beneficiaries of most agricultural programmes and interventions.

As noted by some of our respondents, the most common type of PPP arrangement in Ghana is the Build-Operate-Transfer (BOT) model. This phenomenon maybe attributed to the government's limited fiscal space to undertake the required capital-intensive infrastructure development of the country. However, it is noted that this phenomenon is different when it comes to the agriculture sector. Most of the projects spoken about by our respondents had the government providing the financial resources and the needed investments, while the private person mostly provides the business idea, technical expertise and sometimes assumes management position of the project, and infrequently bringing in on board some limited financial resources.

For example, under the AMSEC programme, the government is providing subsidised tractors to private individuals who intend provide ploughing services to farmers at a fee. After the tractors are paid for, ownership is transferred to the private individual. They are under no strict obligation to continue to provide tractor services to the farmers.

Under the NRGP, government once again had to provide the financial resources to the private sector to implement the programme. The four companies that were selected to implement the programme were to expand their businesses to take on more smallholder farmers. However, the companies were under no obligation to keep these beneficiaries after the project ended. If the linkages created during the lifetime of the programme were still beneficial to the private companies, then they may decide to keep working with the farmers. A similar trend is observed in the case of GCAP.

From the above responses, it became very clear that there is no standardised financing structure for PPP projects in the agricultural sector. Each PPP arrangement comes with its own financing structure. However, what is evident is that the government/public entity provides most of the financing needed. However, because most of these projects are not long term, monitoring of the project by the public sector to ensure that the private sector continues to uphold their responsibilities to the beneficiaries of the project are not continued after the lifecycle of the project. It is also noted that government's role in the operations and management of the resulting PPP business/arrangements is restricted, although the government injected a higher percentage of the capital required to operate the business.

Besides being the main financiers of agriPPPs in the country, the public sector also facilitates the establishment of PPP projects in the country. The desire of government is to attenuate the high transaction costs and the drudgery of establishing partnership arrangements with the private sector. In line with this, steps are being taken to set up a "one stop shop" where private parties willing and ready to go into partnership with the government can visit and have their needs met. The public sector further assists with monitoring, coordination, provision of technical backstopping, among others.

The roles play by development partners in the PPP projects they are involved in are mostly to provide financial resources, facilitate the establishment of the project (i.e., bring government and private sector together) and technical support at all stages of the project lifecycle. Since they are using funds from their governments and other donors, they stay to monitor and ensure the funds provided to undertake the project are used for the intended purpose.

4.4. Key factors that drive successful agricultural PPPs and the mitigating factors in Ghana

Several factors influence the successful implementation or otherwise of agriPPP arrangements. Some of the factors mentioned by the respondents that impede the successful implementation of PPPs in the agriculture sector are discussed below.

One of these factors is the lack of transparency when it comes to tendering processes. The private sector complains about lack of trust in the public sector. Thus, effective collaboration between the public and private sectors is limited.

Another limiting factor is the uncertainty associated with the agriculture sector. There is the general perception that the agriculture sector is very risky and there is high degree of uncertainty about many production factors in the sector. People lack the requisite knowledge and information to make informed decisions on opportunities in the sector.

The lack of adequate incentives from government is also impeding the development of PPPs in the agriculture sector. The private sector feels government is not providing enough resources to engage them in a partnership. Thus, they are also unwilling to complement government's efforts in providing the needed services to citizens.

The payment structure is also an issue. The private sector sometimes does not have the capacity to undertake large-scale infrastructure investments and may look to government to provide the required funding, while the private sector provides the technical knowhow. However, the government may equally lack the financial resources to undertake such investments. Therefore, the PPP collaboration may not materialise.

Furthermore, the inability of the beneficiaries of projects to pay for them is a big disincentive. Smallholder farmers in the agriculture sector are among the poorest groups in Ghana. Therefore, their ability to pay for services they enjoy can be challenging.

Another issue mentioned by respondents is government's bureaucracy and interference in the operations of such projects. Government has the tendency of meddling in the day-to-day running of such projects and this sometimes is not good for corporate governance practices. Also, there is not a "one stop shop" to get all the relevant documentations for establishing the business. This increases the transaction cost associated with doing business in Ghana.

Other factors that impede the successful implementation of agriPPPs are unstructured and unregulated nature of the sector, and people do not see agriculture as a business and thus do not invest in it.

Some factors also contribute to the success of PPP arrangements. A few of these factors are discussed below.

Packaging the agriculture sector to attract the private sector will promote PPPs. A lot of misconceptions currently exist about the agriculture sector in terms of its risk and uncertainties. However, there are equally golden opportunities to be harnessed if the proper collaboration between the public and private sectors are established. We need to educate people on the opportunities in the sector.

Enforcement of contractual agreements is critical to the success of PPP arrangements. When investors believe they will be protected when a party within the PPP arrangement renege on their responsibilities, it promotes confidence in the joint project and partners are committed to their responsibilities.

Another success factor in a PPP arrangement is the clarity of the PPP arrangement. When all parties are clear and certain about their responsibilities, it promotes effective collaboration. Parties in the partnership understand how risks are shared, how payments are structured, how profits are shared, and local content laws are complied with. This promotes cordial working environment and an incentive to attract similar investments into the sector.

Provision of cheaper sources of finance for the private sector to invest in the agriculture sector is another way of boosting PPP arrangements in the sector. Government must provide an enabling environment that includes access to affordable and adequate funding sources that the private sector can access to invest in the agriculture sector. One concern of the public sector is the lack of capacity of the private sector to provide the needed funding for the type of developmental projects government wants to undertake. Thus, it is imperative for the private sector to be able to access cheaper sources of funds to undertake investment projects especially in the agriculture sector where the uncertainties are higher.

The success of a PPP arrangement also depends on effective and routine monitoring of the project.

4.5. Stakeholders' perspective on Ghana's PPP environment and international best practices

The PPP ecosystem must be seamlessly woven into the national development agenda to enable the easy galvanisation of resources to promote its implementation. Although the concept of PPP is not new, it has found expression in our national development strategy documents in recent times. Thus, its full operationalisation and benefits are still being analysed. These sentiments are captured in the responses, where they acknowledge that the PPP environment in Ghana is still in its nascent stages and there is still more room for improvement. The availability of a national PPP policy document is a good start. However, its dissemination to relevant stakeholders for adequate understanding and adoption has been a challenge.

Respondents identified several areas where PPP arrangements are needed in the agriculture sector. The areas most identified by respondents include infrastructure such as irrigation systems, roads, markets and warehousing; seed production, extension services and information technology (IT).

Some respondents believe given the unique characteristics of the agriculture sector, a sector-specific PPP policy document is needed. They make the argument that unlike other sectors, like energy where investors can easily recoup their investments, beneficiaries of the services that are required in the agriculture sector cannot pay for majority of those services. Therefore, a policy document that is more tailored to the sector is needed. It will capture in more detail the peculiarities of the sector and provide a more sector specific definition of a PPP arrangement.

To further reinforce their argument, the focus of the national PPP policy was infrastructure development and thus, the current policy in its form can be improved upon to capture the changes in Ghana's dynamic economy.

However, others believe the sector does not necessarily need a specific PPP policy. But a PPP strategy or implementation document that can be tailored towards the agriculture sector. This strategy paper will draw inspiration from the national PPP policy document, while recognising the uniqueness of the agriculture sector.

Based on the above responses, there is the consensus among respondents that there is the need for a document that will specifically address PPP issues in the agriculture sector. The guidelines in the current national PPP policy document does not adequately reflect the realities in the agriculture sector.

Given the nascent nature of PPPs in the agriculture sector, there is room for growth. There is the need to change some practices and learn from best practices elsewhere. Some best practices identified by respondents from their experiences working in other sectors and jurisdiction are captured below. Some of these best practices include; development of a commodity exchange, crop insurance, aggregation of smallholding lands to attract private capital, and government owning the land so it can commit it to its priority areas.

5. Summary and conclusion

5.1. Summary of study

The agriculture sector is a very crucial sector of the Ghanaian economy. It serves as the main source of livelihood for the majority of the population, employs more people than other sectors, supplies raw materials to industry and continues to contribute to the country's GDP. As the single largest employer of the Ghanaian economy, any investment in the agricultural sector is expected to draw more people out of poverty than in other sectors of the country's economy. However, the sector continues to receive the least level of investment and attention from both the public and private sectors.

Although Ghana has subscribed to regional and continental initiatives such as the CAADP and the New Alliance, public sector support for the agriculture sector has been dwindling over the years. This has continuously stifled agricultural productivity growth in the country. The government's inability to lend the needed support to the agriculture sector stems from fiscal constraints and competing interests from other sectors. From the perspective of the private sector, the high level of potential and actual risks, and uncertainties of doing business in agriculture inhibit some private individuals from investing in the agriculture sector. Interestingly, opportunities exist for the public and private sectors to collaborate in order to harness the full potential of agriculture development by pooling their strengths and resources together through PPP arrangements.

Inspired by the need for PPP arrangements in the agriculture sector of Ghana and their potential benefits for the sector, this study attempts to gauge the key determinants of effective and sustainable agriPPPs in Ghana and to further develop guidelines for key stakeholders involved in the development of the agriculture sector PPPs in the country. These are expected to enhance the understanding of agriPPPs and to further stimulate both public and private interests in agriPPPs in Ghana. This would help attract the needed level of investments from these actors.

5.2. Conclusion of study

Based on the results of the study, the following conclusions can be drawn. Ghana's PPP environment is nascent and still has room for significant progress to be made. There is limited knowledge on the general PPP environment in the country. The most popular PPP typology in Ghana is the BOT model and this is usually adopted in the provision of infrastructure, where the beneficiaries are made to pay for using such goods or services. This typology is however not popular in the agricultural sector of the country, due to the challenge of payment of service charges. Resource-poor smallholder farmers are less likely to continue to patronise essential services that require payment, such as irrigation service charges, due to their financial constraints.

It is also evident that most of the supposed PPP arrangements in the agriculture sector of Ghana do not meet the key elements in Ghana's PPP policy document. Government hardly shifts a significant proportion of the risk involved in partnerships to the private sector and additionally, most of the financing is done by the public rather than the private sector. This makes some PPP practitioners and stakeholders sceptical as to whether such arrangements are really PPPs.

Most of the PPP arrangements in Ghana are signed at the national level; they must go through the PPP desk of the Ministry of Finance, where they are assessed and approved before implementation. This explains why Ghana obtained the lowest score (25%) in the country's ability to undertake PPP arrangements at both subnational and national levels during the assessment by the Economist Intelligence Unit. On the other hand, development partners are willing to broker agriPPP arrangements in Ghana when such arrangements meet their development objectives of alleviating poverty among smallholder households.

The responses also show that all actors involved in agriPPP arrangements have unique roles and responsibilities, and these are determined by the prime goal of the partnership. In most agriPPP arrangements, smallholder farmers are regarded as investors and/or beneficiaries of the partnership. The development partners mostly inject funds into the partnership, serve as brokers for such partnerships and provide technical assistance during the implementation of the PPP arrangements. The public sector is the main financier of agriPPPs in the country besides its roles in monitoring and coordinating PPP projects. There is no standardised financing structure for agriPPPs in Ghana and generally, the expectation of the private sector is for government to make the initial investments for the private sector to come in.

Principally, the success of agricultural sector PPPs in Ghana is determined by the attractiveness of the sector, the enforcement of contractual agreements, clarity of contractual arrangements and the effective monitoring of such arrangements, among others. Measures targeted at promoting these factors have the potential to enhance the general agriPPP environment in the country. AgriPPPs can likewise be promoted when concrete steps are taken to minimise the impacts of risks and uncertainties associated with partnerships, the high level of bureaucracy in establishing contractual arrangements, lack of transparency, and the low level of incentives associated with agriPPPs. The national PPP policy is biased towards the provision of infrastructure and thus, it is very difficult to adopt to suit sectors where efficient service provision is required. Thus, there is the need for a sector-specific policy for agriculture which takes into accounts the unique attributes of the sector.

5.3. Comments and reactions from stakeholder workshop

The findings of the study were presented at a stakeholder workshop to validate the findings. Participants included development partners, representatives from the Ministries of Finance, and Food and Agriculture, CSOs, private sector investors and beneficiaries of PPP arrangements. In general, participants concurred with the findings and observations of the study, and the resulting conclusions and recommendations. Some of the issues highlighted during the workshop are presented below:

Definition of PPP

It came to light during the stakeholder discussions that there is no consensus on the definition of a PPP. The concept of a PPP being an arrangement between private and public entities is agreed upon. However, the nature of that arrangement to be deemed a PPP varies. On the one hand, stakeholders within the agriculture sector believe a number of projects that they have undertaken and currently involved in are PPP arrangements. They argue that, the funds they utilise in these projects are mostly public funds from foreign countries. Therefore, using these funds for joint projects with smallholder farmers and other private sector actors is a PPP arrangement. According to them, the definition contained in the national PPP policy document is narrow and therefore it should be expanded to capture what they do as PPPs.

However, representatives from mainly the Ministry of Finance are quick to point out that, a project will only be deemed a PPP arrangement if it meets a set of criteria stated in the national PPP policy document. A feasibility study is required on the project where economic, financial, technical, environmental, etc. considerations need to be done. These issues will determine whether the project is feasible or not, and how risks and benefits will be shared reasonably.

Contribution of partners in a PPP arrangement

Another issue of interest is the contribution of the private sector to a PPP arrangement. Participants agreed that the situation where the private sector is mostly seeking a management role or arrangement without contributing any capital is not a characteristic of a typical PPP arrangement. They should have a change of mind set. The private party should be the partner who brings on board the majority of the capital. Where the private party is only bringing technical support, and the government/public sector bears all the risk is not good enough. The private party should invest capital and the partners should agree on how to share risk and benefits in a reasonable manner. Participants agreed that the private sector can do more to promote PPPs. They can increase their contribution and not expect government to bear all the risks. Their capital contribution to the project is indicative of their commitment and determination of the success of the project.

Agriculture sector specific policy or strategy

On the issue of an agriculture sector specific PPP policy or strategy, majority of participants think it is useful given the nuanced nature of the sector. The risky nature of the sector was highlighted. However, some participants suggested that investment in the sector is not as risky as being portrayed out there. When sound business models are followed, the returns from investing in the agriculture sector are enormous. Therefore, education and awareness creation is needed to attract the needed investment into the sector.

Another issue raised was the introduction of a PPP law which is currently being worked on. They believe the new law will address some of the issues that are restricting the effective implementation of PPPs in the agriculture sector.

Perception about PPP arrangements by beneficiaries
Some beneficiaries (private sector investors) of the GCAP programme praised the PPP arrangement in place. They said the matching grants provided by GCAP helped them expand their businesses. They said, PPPs if well implemented will leapfrog the development of the agriculture sector. They believe PPP arrangements will help formalise the agriculture sector. People will be held accountable to their contractual obligations, and funds and other resources can be harnessed to bring development to smallholder households in the sector. This will ultimately culminate into national development.

Sustainability of PPP arrangements
A critical issue raised during the workshop was the sustainability of PPP arrangements. When the public-sector phases out, what is the sustainability module? How does the established entity continue to operate and fulfil its obligations under the contract to the beneficiaries? Participants noted that there is no specific exit strategy in place by the public sector to exit a PPP arrangement. They recommended that during the structuring and design of a PPP arrangement, the sustainability of the project after the public-sector exits should be clearly stated. Government should also enforce the terms of the contract to protect the beneficiaries of the project.

6. Recommendations

6.1. Policy recommendations

Based on the findings of this study, the following recommendations are made:

i. Due to the dominance of smallholder households and the level of development in the agriculture sector, it critical for a sector specific PPP policy or strategy document to be developed to address the unique opportunities and challenges in the sector. This document will outline the framework within which agriPPPs will be designed, implemented and evaluated. The policy or strategy document should promote inclusivity. Special provisions should be made for women and the youth to promote social and economic inclusion. The policy must also clearly state the benefits that will accrue to investors.
ii. The implementation of well thought through agriPPPs given their potential to harness the full potential of agriculture development by pooling public and private strengths and resources together.
iii. There is the need to design a suitable PPP typology for the agriculture sector which considers the peculiar characteristics of both the sector and the smallholder farmers.
iv. "Local-local content" participation should be a pre-requisite in any agriPPP initiative. This will safeguard the interest of smallholder families in the project sites.
v. AgriPPPs should be promoted in the following areas but not limited to infrastructure development such as irrigation systems, roads, markets and warehousing; seed production, extension services and information technology (IT).
vi. Efforts by the government through the Bank of Ghana to hedge financial institutions who lend support to the agriculture sector through the GIRSAL is a step in the right direction and should be extended to cover individuals who are willing to support smallholder farmers.
vii. The government of Ghana must continue to create an enabling environment to attract private sector resources and expertise into the agriculture sector of the country. Such efforts should include making the needed initial investments when the need arises, and protecting private sector interests where necessary.

viii. Government must not fall into the trap of deferring the provision of all public goods and services to PPP arrangements. PPP models are not always the optimal mechanism in the provision of public goods and services.
ix. Efforts aimed at reducing the transaction costs of establishing PPP arrangements through the setting up of a "one stop shop" will go a long way to facilitate PPP arrangements in the country.
x. Education and sensitisation of the general public—especially of agriculture and agroindustry stakeholders—on PPPs in the country if government desires to reap the benefits of PPP arrangements in the country.
xi. Continuous building of capacity of Metropolitan Municipal and District Assemblies to undertake and manage their own PPP arrangements will also contribute significantly towards improving the PPP environment in the country.
xii. Furthermore, MoFA, MLGRD, MoF, and the GIPC should be champions of agriPPPs and form a high-level commission to spearhead the identification, organisation and implementation of agriPPPs. This commission should have private sector representation.

6.2. Suggestions for future PPP studies

This study is exploratory in nature. Therefore, the study provided an overview of what is going on in the sector. Participants appreciated the findings of the study. However, there were suggestions about a future study providing more in-depth analysis into the operations and functionality of PPP arrangements. For example, a case study of a few of such arrangements should be undertaken to highlight the actual challenges confronting PPPs in the agriculture sector. The nature of the specific contracts entered into and the integration of gender roles in such arrangements can also be examined.

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Appendix

A1: Quotes from respondents on themes analysed

Themes/questions	Quotes from respondents
Conceptual definition of PPP	*"…So government partner the private sector to achieve national development goals and agenda and it cut across various sectors. Is not that government is doing everything on its own but government providing the environment, the infrastructure, the enabling support or the pillars for private sector to come in with their resources, technical, financials to help trigger the changes we need…"* – AGRA, M&E Officer
	"…It is a framework whereby the public sector, and the private sector, the producers-smallholder farmers align their priorities to make investment which either wise would not happen if they three will not come together…" – IFAD, Programme Officer
	"…Basically, it's about a partnership between the public sector agency and a private partner and this partner is coming on board with funding and then the delivery of…whatever infrastructure it is or service it is,…and this partnership is governed by contractual agreement that both parties sign and then they deliver on their parts…" – MoF, Head of PPP unit
	"…PPPs is an engagement between a public sector and a private sector in a shared arrangement which results in mutual benefits..." –MoTI, Team Leader-Industrial Sub-contracting and Partnership Exchange
Public funds are not restricted to government of Ghana but also public funds from other foreign governments	*"…And in most of our partnerships in 2SCALE, the public party is represented by ourselves…through the 2SCALE program, we use public funds from the Dutch Government. So money from the Dutch taxpayers transit through 2SCALE to reach partners, private partners in the different countries. So this is public money, so, we represent somehow a public party. ...in some cases, you also have local authorities or national governments who are involved in the partnership in addition, so you have more than, in that case more than just one public entity. So it is quite diverse…"* –IFDC, Deputy Chief of Party of 2SCALE
	"…Public is a government institution, resource giver and that could be like for example in Ghana, the Government of Ghana, however, it can also be a development partner or a donor like USAID..." –USAID, Agriculture Team Leader
Key elements of PPP	*"…then there is risk sharing and, well as you share risk when the benefits come you share it as well and there is a clear definition of enforcement of sanctions when somebody goes against the agreement…"* – MoFA-GIDA, Senior Agricultural Economist
	"…The fundamental is risk sharing, fundamental is risk sharing. You cannot have a partnership that government still bears almost all the risk. It should be shared appropriately…" – MoF, Head of PPP unit
	"…two or more partners who are in the partnership are indeed using their own resources and they are all actually working towards a common goal as well…" –USAID, Agriculture Team Leader
Challenge to PPP implementation in the agriculture sector	*"…so…the mechanism of payment, how it is going to be paid for, that's where the problem is. Because our farmers are peasant farmers…are we going to say that they are going to wait till they harvest and pay…? The payment mechanism is what the issue is, that's what I see as a major problem"* – MoF, Head of PPP unit
Knowledge of types of PPPs	*"…Most of our projects that…are currently sort of in the pipeline are mostly BOT [Build-Operate-Transfer]…"* – MoF, Head of PPP unit
	"…I think the usual one that comes to mind is the build operate and transfer (BOT)…" - NDPC, Deputy Director, Development Policy Division
	"…Yea, BOT, I know of those ones but…the other one, JV [Joint Ventures]…" –MoTI, Team Leader-Industrial Sub-contracting and Partnership Exchange
Role of development partners in PPP arrangements	*"…So government said we need to get seeds to the farmers. That was the first bit of these. Seed companies saw a market opportunity and then they said we can quickly deliver this. Government says my money is not ready. AGRA comes in to say we think we can facilitate this arrangement. So AGRA comes in to give seed companies the money and they are*

	supposed to produce the seeds and then with the support of government, get those seeds to the target farmers that government has earmark to receive the seeds…" – AGRA, M&E Officer
Some PPP projects in the agriculture sector	
AMSEC	*"…The government does not go into partnership with the individual farmers but instead he goes into partnership with the private individuals who have interests in farming or in the farming business…and has the financial resource of financing or buying the machines, we move into partnership with…"* - MoFA-AESD
	"…there is a procedure we follow. You have to apply through the regional or district director, the letter must be addressed to the Honorable Minister of Food & Agric through the regional or district director of Agric and a copy to the director AESD [Agriculture Engineering Service Directorate]…The reason why we say through the regional and district offices is that they are on the ground…" - MoFA-AESD
	"…The rationale behind this [programme] is government realizing that most farmers did not have the requisite cash or amount of money for the purchase of these tractors, partnered the private sector who have the financial muscle to finance these machines…that is to be able to make tractors and agric machines accessible and affordable to the farmer…" - MoFA-AESD
Northern Rural Growth Programme (NRGP)	*"…the Northern Rural Growth Program…, originally to be implemented in the northern part of Ghana that is the three northern regions and part of Brong Ahafo but eventually by the close of the project it had been implemented…in nine regions out of the ten [okay] because we have infrastructure development, constructions of irrigation facility which went beyond the project original coverage area…our project was financed by IFAD…as well as African Development Bank…"* – MoFA, Deputy Director of Policy Coordinating Unit
	"…well the goal [of the project] was to contribute to poverty reduction and the specific objective was to increase smallholder farmers' income on sustainable bases…" – MoFA, Deputy Director of Policy Coordinating Unit
2Scale programme	*"…For 2SCALE, it's a program funded by the Dutch Government in different Sub-Saharan African countries. We define ourselves as an incubator for inclusive agribusiness… Incubator, because…we are supporting other parties…to implement their business ideas…it's not enough, it has to be also inclusive. This is also why we can justify to use public funds to support these agribusinesses because it also has a social…impact [and] development impact…"* –IFDC, Deputy Chief of Party of 2SCALE
	"...we have two categories in 2SCALE…Value Chain Public Private Partnership... where we have a lead firm that leads the value chain…and with which we develop partnership agreement… we also have the second category what you call, let me make it simple, grassroots PPPs where…let's say in association of women that produce rice for instance…Our real internal jargon is…Agribusiness Cluster Public Private Partnership…" –IFDC, Deputy Chief of Party of 2SCALE
Ghana Commercial Agriculture Project (GCAP)	*"…We are not a PPP but we facilitate and ensure the establishment of a PPP using the funds that have been obligated to us. So that is the way I look at it. So we cannot say we are PPP but you know the theory. I have given you the facts, if theoretically you consider it as such, well. I mean it is you but, I don't see it as such…"* – GCAP, National Project Coordinator
	"…GCAP is an inter-sectorial project that was set up to help…our farmers so that they become commercial farmers and to be able to do that you need…access to land, access to water and access to the other resources they require to farm commercially…" – GCAP, National Project Coordinator
	"…GCAP is a Government of Ghana project, 100% financed by the government [of Ghana] with a loan from the World Bank and a grant from the USAID but in our delivery we try to help the private sector…" – GCAP, National Project Coordinator
	"…GCAP is a project no, it is not, but you see it is a government-led project that goes into some arrangement with putting up markets, I mean they are doing all kinds of things, all kinds of things..." –MoTI, Team Leader-Industrial Sub-contracting and Partnership Exchange
Ghana Commodity Exchange (GCX)	*"…The Ghana Commodity Exchange…is limited by shares…so currently the government of Ghana is the only shareholder…so in the next 1,2,3,4 years we will be looking at how to we can attract investment from the private sector as well…so that the private sector will come and also share some of the responsibilities that government have. I think*

	collectively there are decisions to be made, there are technical issues to be resolved and so we need PPP model in order for us to…function properly…" **–** GCX, Chief Executive Officer (CEO)
	"…in the short term, we are…trading mainly food staples like maize, beans, rice, millet, sorghum…the role of the exchange is to support farmers or producers to solve some of the problems in terms of lower prices, poor quality, post-harvest loses, lack of access to finance and input…in the medium term…commercial crops like cashew, cocoa, coffee…and in the longer term…petroleum products, oil, gas, minerals so that is what we have…" **–** GCX, Chief Executive Officer (CEO)
Smallholder farmers are the main beneficiaries of agricultural programmes and interventions	*"…Smallholders farmers to me are the biggest investors we can think of…they are the biggest investors in this country…"* – AGRA, Country Manager
	"…We have a couple of different roles…they are beneficiaries [farmers] and that is our interest and…they are a contributor to maize production and processing in Ghana…they are producers..." –USAID, Agriculture Team Leader
Government provides majority of resources in agriPPPs in Ghana	*"…Yes…actually all the machines we sell from engineering are subsidized…but there has been a lot of default…So we decided that this time around we were not going to allow part payment but we will only allow when it is supported by a bank guarantee. So it is either an outright payment or about 90% and then the 10% supported by bank guarantee…It was just for government to ensure that it recoups the amount it has invested so that other people can equally benefit…"* **-** MoFA-AESD
	"…And our role here was providing the resources for capacity building [okay] and establishing linkage between the smallholder farmers and the company, that was what we were doing…" **–** MoFA, Deputy Director of Policy Coordinating Unit
	"…The project just completed in 2016…and finally closed in September just last year but…there have been interactions [with the companies] and they are still working with the smallholder farmers…" **–** MoFA, Deputy Director of Policy Coordinating Unit
	"…No, no I said 20% minimum…I gave you that example. So minimum is 20% from the farmer. We do not do more than 80%...of the support…" **–** GCAP, National Project Coordinator
Public sector facilitates and monitor PPP implementation	*"…we [GIDA]brought in the lands commission, water resource commission, even I think EPA…water user permit and land permit from these two and that is basically the one stop shop we've been describing…All the institutions that the private sector has to deal with we have to facilitate…the meeting with them so that…we have to bring all of them to one place where they… the private sector can have easy access to them and that by implication reduces the cost of…"* – MoFA-GIDA, Senior Agricultural Economist
	"…Yes, so the Ministry of Local government was the coordinating ministry and the farmers I will say… farmers were rather doing the implementation itself…" –MLGRD, Head of M&E unit
Role of development partners	*"…We are a broker, a facilitator. AGRA is a broker and we are not a donor. If you will, we are a capacity building institution, strengthen systems and addressing bottlenecks in systems. Once a while, we make little investments in the system to entice people to see that, it works so that they can bring their money…"* – AGRA, Country Manager
	"…I mean we're definitely providing cash but also we do provide a fair amount of…technical direction, like we have development expertise which we don't necessarily expect…other private sector partner will, some do, some don't and so we are able to bridge that gap of…" –USAID, Agriculture Team Leader
	"…We provide funding to the government…we provide implementation technical support in term of…how do you build this partnership but we are not part to the partnership…" – IFAD, Programme Officer
Factors that impede successful PPP implementation	*"…I think one thing I have also come to realize is that, there is no transparency when it comes to tendering processes. Because in some of the PPP arrangements like huge infrastructure, you need to go into competitive tendering to get the right kind of private sector people who want to come in…"* – AGRA, Country Manager
	"…there is a big mistrust between private and public sector to work together…" – IFAD, Programme Officer

	"…I have talked about the uncertainty associated with agriculture…and then getting people who are knowledgeable about all these and who are also ready to engage in it, because people are not aware, and they do not see the opportunities and the advantages in doing so. So, definitely if you do not know the advantages you may not go into it…" **–** GCAP, National Project Coordinator
	"…We basically have people who are unschooled, who are farming…while the other side, just about 3 or 4% of the people are farming for the whole of the United States of America…because they are schooled, they have some minimum of understanding of things but ours, they don't and they are many…" – MoF, Head of PPP unit
	"…there is less incentives that the government is offering to attract the private sector…private sector will also tell you that the public sector is not supportive of the private sector in Ghana…" – IFAD, Programme Officer
	"…You know generally it's about the payment structure…So it's about the payment it's not that simple to be asking for guarantees, letters of credit and these agencies might not have the capacity to do that..." – MoF, Head of PPP unit
	"…the mechanism of payment, how it is going to be paid for, that's where the problem is. Because our farmers are peasant farmers…are we going to say that they are going to wait till they harvest and pay…that's what I see as a major problem…" – MoF, Head of PPP unit
	"…Sometimes the policies…are not favorable and government interference. Too much government control, too much government push into stuff…Then government bureaucracy. Engaging with government, you go for…meetings, meetings…those are things that will put me off…" – AGRA, M&E Officer
Factors that drive successful implementation of agriPPPs	*"…how do you entice agro dealers to move to hinterlands to set up agro dealership network to support smallholder farmers…why can't we find seed or inputs in every village for a farmer to access…"* – AGRA, Country Manager
	"… We have to make the thing very attractive to them, what is in it for private sector, how does it benefit them. If that is not established clearly upfront then they will not come in with their money because…They are private profit making organization…" – AGRA, M&E Officer
	"…I also want to add in as much as we do the facilitating we also need to educate…" **-** MoFA-GIDA, Senior Agricultural Economist
	"…Now we have already talked about the law…the enforcement mechanism is very important…it's not there in the agriculture sector. Some of the partnership we have facilitated between aggregators, farm business organizations are just based on trust…and once the trust is broken its over so there is no way to compensate people for the loss due to noncompliance so enforcement mechanism is big time..." – IFAD, Programme Officer
	"…The value for money, the risk allocation, our ability to pay…who is paying for that partnership arrangement…we have to look at local content…local participation, Ghanaians being part of these private partnership arrangements…" – MoF, Head of PPP unit
	"…The other issue which is not new is of course finance…just making sure that people do have the access to affordable finance. Because if you are going to grow your business you got to have that as well and I think larger businesses seems to get more affordable finance but smaller businesses it's still difficult…" –USAID, Agriculture Team Leader
	"…there must be effective and routine monitoring on both the part of the private and the public sector where the public sector would always ensure that the private sector is monitored because in every social organization, if monitoring is compromised obviously people will cut corners to increase their profit…" **-** MoFA-AESD
PPP environment in Ghana	*"…Well it is a work in progress…it is not something that happens overnight. The fact that they have a policy…is a positive step but there is still long way to go…"* – IFAD, Programme Officer
	"...there's more work to be done because everybody is just, everybody wants to do PPP…and we are so impatient…everybody is in a rush and it brings confusion…there's more work to be done. Especially, within the public sector for people to understand what PPP is all about..." – MoF, Head of PPP unit

	"… it is nascent…we are still understanding the concept…" MoTI, Team Leader-Industrial Sub-contracting and Partnership Exchange
	"… It is in its formative stages… There has been some PPP arrangement…" – AGRA, M&E Officer
Areas PPP arrangements can be implanted in the agriculture sector	*"…roads…dams, irrigation…even the market but it's also connected to the roads and providing financial support…And even this agric extension officers…"* -NDPC, Deputy Director, Development Policy Division
	"…there is need for mechanized services, there is need for certified seeds, there is need for irrigation systems, there is need [for] effective marketing chains or marketing linkages, and there is need for post-harvest controls. So these are very, very pivotal in the food production systems…" - MoFA-AESD
	"…I think there is a lot of different opportunities…seed sector development…Maybe in fertilizer production, maybe the government needs to play a role in building of plants but then they turn it over to the private sector for production, for distribution…" –USAID, Agriculture Team Leader
	"…the issue warehousing…it also something that is critical even on the Northern Rural Growth Program my previous project we constructed some and the idea was to have PPP arrangement with the private sector to manage them…unfortunately we could not do that before the closure of the project…" – MoFA, Deputy Director of Policy Coordinating Unit
Does the agriculture sector need a sector specific PPP policy?	*"…In fact I will think so…So the terms and conditions will be tailored towards…the agric [agriculture] sector…"* -NDPC, Deputy Director, Development Policy Division
	"…I think so…we tend to forget about the needs of the agricultural value chain…sometimes we take delight in seeing huge infrastructure roads, railway lines, water systems. People can make huge chunks of money but there are other systems that we can develop along the value chain in the agricultural sector…" – AGRA, Country Manager
	"…Well of course yes it's something that could be done because…PPP arrangements will differ from sector to sector...and for that matter there is a need to develop such a document…The principles could be the same but then the specific sector issues will differ from what the ministry of finance is currently doing…" – MoFA, Deputy Director of Policy Coordinating Unit
	"…We don't know about sector having its own…the sectors will have various sector guidelines, regulations to address…different sector issues. Because energy is different from agriculture…the peculiarities there…" – MoF, Head of PPP unit
	"…So we can have sector specific strategies out of the national policy so then it means that the nation policy then should have an overarching outlook…looking at every sector in its generality, and then the strategy or the roll out from that policy should be sector-specific…" -MoTI, Team Leader-Industrial Sub-contracting and Partnership Exchange
Focus of current national PPP policy	*"…it is a legal document that spell out investments…there are a whole lot of guidelines in it…and at the time of preparation…the focus was on infrastructure especially energy. If I could recall. So that is the time we had energy crisis, we had problems and we thought investment in the energy is so huge that we need the support of other private sector or other organization to come on board to partner with the public sector to undertake some of the projects…"* -NDPC, Deputy Director, Development Policy Division
Best practices around the continent	*"…in Senegal their input subsidy…It is converted into crop insurance. So if you plant and the weather fails, that is where you get a subsidy from the government. That is an advanced level of subsidy…"* – AGRA, Country Manager
	"…countries in East Africa where commodity markets are well-structured, such as in Uganda and Kenya. So you cannot just sell anything. They have given quality standards. We do not have standards here…" – AGRA, Country Manager
	"…government owes the land…so access to land is easy for investors…and that is not the…case with us here even after compensations has been paid people still wants access to the land…these things do not happen in Morocco and in Egypt and in other African countries…in most places is government and what it means is that government has control and can make investment decisions quickly…" – MoFA-GIDA, Senior Agricultural Economist

A2: Status of interviews conducted

	Institutions	Date of interview	Type of respondent	Status of interview
1	Ministry of Finance (MoF)	12/02/2018	State	Completed
2	Ministry of Food and Agriculture (MoFA)			
	i. Policy Unit	01/03/2018	State	Completed
	ii. Project coordinating Unit	02/03/2018	State	Completed
	iii. Ghana Irrigation Development Authority (GIDA)			
	a. Director of Planning & Coordination Department	15/03/2018	State	Completed
	b. Senior Agric. Economist	15/03/2018	State	Completed
3	Ministry of Trade and Industry (MoTI)	14/02/2018	State	Completed
4	Ministry of Local Government and Rural Development (MLGRD)	23/02/2018	State	Completed
5	National Development Planning Commission (NDPC)	16/02/2018	State	Completed
6	United States Agency for International Development (USAID)	02/03/2018	Development partner	Completed
7	International Food Policy Research Institute (IFPRI)	16/02/2018	Development partner	Completed
8	International Fund for Agricultural Development (IFAD)	22/02/2018	Development partner	Completed
9	Alliance for a Green Revolution in Africa (AGRA)			
	a. Country Manager	20/02/2018	Development partner	Completed
	b. Monitoring and Evaluation Specialist	20/02/2018	Development partner	Completed
10	Ghana Investment Promotion Council (GIPC)		State	Redirected to MoF
11	Ghana Commercial Agriculture Project (GCAP)	13/02/2018	PPP related business/ project	Completed
12	Agricultural Mechanisation Service Enterprise Centres (AMSEC)	19/02/2018	PPP related business/ project	Completed
13	International Fertilizer Development Centre (IFDC)	08/03/2018	Development partner	Completed *(Added in the course of the study)*
14	Ghana Commodity Exchange (GCX)	09/03/2018	PPP related business/ project	Completed *(Added in the course of the study)*
15	World Bank Group		Development partner	Could not schedule a date
16	AMSEC businesses		PPP related business/ project	Did not get the official list of AMSEC businesses from the Engineering unit of MoFA

A3: Overview of some PPP related organisations

Agricultural Mechanisation Service Enterprise Centres (AMSEC)

The AMSEC programme is spearheaded by the Agricultural Engineering Services Directorate (AESD) of the Ministry of Food and Agriculture. The programme started in October 2007 (Benin, 2015). The rationale for the project is to provide farmers with agricultural machinery to boost their production levels. The overall goal of the programme is to support the private sector to provide smallholder farmers with farm power machinery at affordable rates and in a timely manner. Also, the AMSEC programme is to increase the ratio of tractors to farmers, reduce drudgery and ease the laborious nature of manual farming activities (MoFA, 2012).

The AMSEC project is a national programme run in all 10 regions of Ghana. It is a collaboration between government and the private sector. The programme is run as a credit facility which can be accessed by all private individuals who are qualified. Though, it is a national programme (macro level), it is implemented at the district level (micro level).

To qualify for such a credit facility, the individual, institution, or company must show ability to pay back the loan. Also, the qualified entity must have the technical expertise or engage persons with the technical know-how to manage a mechanised services centre. Application for the tractors are done from the district level through to the national level where the final selection is done. With an initial payment of 10-17 percent of total cost, a beneficiary can acquire up to five tractors and pay the rest of the cost over a period of time (Benin, 2015). Under this programme, farm machinery is subsidised by government. This is to serve as an incentive for the private sector to come on board and purchase these tractors and make them available to the smallholder farmer (Benin, 2015). This collaboration between the public and private sector is deemed a PPP arrangement by AESD.

During the programmes implementation, it was realised that, after the down payment by beneficiaries, they were not paying up the remainder of the loan which was spread over 5 years. Therefore, the payment policy was revised to increase the down payment to 70 percent with a bank guarantee for the 30 percent of the remainder (MoFA-AESD & JICA, 2014). This change in policy has improved the payment of the remainder of the loans.

According to MoFA (2012), an evaluation of the AMSEC programme by SmarTeam Services and GIMPA Consulting Services point to the successful implementation of the programme. However, some suggestions were made about how to improve the low repayment of loans by beneficiaries. Currently, the down payment required under the AMSEC programme is at least 90 percent and a bank guarantee covering the other 10 percent. With this change in the payment policy, the risk of beneficiaries defaulting is decreasing and thus, reduces the risk that government has to bear. Due to the upfront payments being made by most beneficiaries, government can rely on the revolving fund to acquire more machinery for the benefit of more farmers. However, as with government subsidised projects, there are allegations of political interference and this is affecting the smooth implementation of the programme (Benin, 2015).

2Scale Project

The 2Scale project is funded by the Netherlands government and is being implemented jointly by IFDC, ICRA and BoPInc. The project was launched in 2012 and it is being implemented across some countries in Sub-Saharan Africa. Currently, they operate in 9 African countries. Namely; Benin, Cote d'Ivoire, Ethiopia, Ghana, Kenya, Mali, Mozambique, Nigeria and Uganda. By mid-2017, partners under the project included, 567,000 smallholder farmers, 1300 agribusiness enterprises, and about 1500 cooperatives. They facilitate the provision of technology, organisational capacity, market access, credit, extension advice, etc. The rationale for the 2Scale project is to build networks that connect farmers, buyers and intermediaries, to create new or expand inclusive business models (2Scale project, 2017a).

The 2Scale project is considered a PPP because, it uses mainly public funds from the Netherlands government for its activities. The Project approach is to establish a temporary PPP arrangement. This arrangement will enable 2Scale and the other partners in the partnership to take decisions about the priority interventions, co-investments, results monitoring and risk mitigating measures needed to promote inclusive business development. When the inclusive goal of the project is established, 2Scales' involvement is curtailed and the sustainable business model established is expected to continue in perpetuity (2Scale project, 2017b).

In Ghana, the activities of 2Scale is nationwide. However, depending on the type of partnership they enter into with beneficiaries, their activities will either be at the macro, meso or micro level. In the 2Scale Project, two types of PPP arrangements are involved, namely: Agribusiness Cluster PPPs (ABC-PPPs) and Value Chain PPPs (VC-PPPs). ABC-PPPs are PPPs with smallholder farmer groups or cooperatives and other rural enterprises, as well as business support and financial services providers. This type of PPP is initiated by local business champions. VC-PPPs are also partnerships at the value chain level where there is a lead firm directly or indirectly serving or sourcing from smallholder farmers. The lead firms can operate at international, regional or national levels. This type of PPP arrangement is initiated by the lead firm which are usually a large-scale enterprise (2Scale project, 2017c). Therefore, given the fundamental goal of 2Scale of having an inclusive business model, whether the PPP arrangement is ABC-PPP or VC-PPP, some level of implementation will occur at the micro level.

There are no pre-existing guidelines in term of how to establish the partnership or the nature of the partnership to be formed. Contractual agreements between the parties stipulates the manner in which the partnership should be executed and the way risks should be shared among partners (2Scale project, 2017b).

Over the years, a number of success stories have come out of the operations of 2Scale. For example, Yedent which is involved in the soya bean value chain is serving as ready market for soya bean producers in the project areas of 2Scale and on the other hand, the farmers/base-of-the-pyramid (BoP) are serving as customers for its product Maisoyforte which is a vitamin-enriched maize-soya porridge mix targeting low-income consumers (2Scale project, 2017d). There has also been challenges along the way. For example, Fruittiland was experiencing financial challenges and had to temporarily shut down and therefore could not purchase citrus from farmers. Due to the flexible nature of the partnership, another citrus processor, Pinora was brought on board by 2Scale to purchase the fruit from farmers (2Scale project, 2017b). Consequently, smallholder citrus farmers were able to sell to Pinora which also sold it to Fair Trade Original, the European partner who was originally in the arrangement. Therefore, the farmers did not lose out.

Northern Rural Growth Programme (NRGP)

The Northern Rural Growth Programme (NRGP) was a government of Ghana project led by the Ministry of Food and Agriculture (MoFA). The goal of the programme is to contribute to an equitable and sustainable poverty reduction and food security among rural households. More specifically, the objective of the project is to increase household incomes of rural households' in northern Ghana on a sustainable basis. The programme was executed under four main components. Namely: commodity chain development; rural infrastructure development; access to financial services; and programme coordination (http://mofa.gov.gh/site/?page_id=713).

The project was funded by the Africa Development Bank (ADB) and the International Fund for Agriculture Development (IFAD) through a loan facility advanced to the government of Ghana. A total of US$103.55 million was invested into the programme. Approval for the programme was given in 2007 and the programme execution started in October, 2008 (IFAD, 2014).

The project was mainly implemented in the three northern regions (Norther, Upper East and Upper West Regions) and the northern part of the Brong Ahofo and Volta Regions. Although this was the coverage area of the programme, implementation was done in specific districts within the coverage area of the programme. About 32 districts in total were expected to benefit from this programme. However, some other components of the programme were done in other regions of the country (IFAD, 2014).

Under the commodity chain development component, a number of PPP arrangements where entered into with the private sector to facilitate the development of selected commodity value chains. These were already existing companies. Therefore, under this model, the firms were given funding to expand their businesses so they can intend engage more smallholder farmers along the value chain. The firms were to provide the farmers with training to improve their capacity and also serve as ready markets to buy the products of the farmers.

These projects were deemed PPPs because, the funds for implementing the projects were coming from government and the private sector partners came on board to collaborate with government to improve the productivity of smallholder households and ultimately their incomes.

Some of the companies involved in the PPP arrangements with NRDP were Savannah Farmers Marketing Company (SFMC), Nestle Ghana Limited, Minow Willies and Wiers (MWW), AVNASH, OLAM, AAK, Akate Farms. Partnerships with SFMC, Nestle Ghana ltd, Akate Farms and MWW were operational and providing demonstrable benefits to clients as at 2014. The others were yet to be realised due to some technical challenges (IFAD, 2014).

Ghana Commercial Agriculture Project (GCAP)

The Ghana Commercial Agriculture Project (GCAP) is a government of Ghana project under the Ministry of Food and Agriculture (MoFA). The project was established in 2012 with a total investment of US$145 million. Funding was secured by government from the World Bank-IDA and USAID. The objective of the project is to improve agricultural productivity and production of both smallholder and nucleus farms in selected project intervention areas with increased access to reliable water, land, finance, agricultural inputs and output markets (GCAP, https://gcap.org.gh/).

This objective will be achieved under four components. Namely: (i) strengthening investment promotion infrastructure and facilitating secure access to land, (ii) securing PPPs and small-holder linkages in the Accra Plains, (iii) securing PPPs and smallholder linkages in the area under the Savannah Accelerated Development Authority (SADA), and (iv) Project Management, and Monitoring and Evaluation (http://gcap.org.gh/recruitment-of-communication-specialist/).

This is not a nationwide project. The focus of the project is in two areas, namely; the Accra Plains and the Savannah Accelerated Development Authority (SADA). The GCAP project is not a PPP. It is 100 percent owned by government. However, the project aims at establishing PPP arrangements with the private sector. The project provides financial and technical support to private investors who have viable business models that will engage smallholder farmers on sustainable bases in the project areas.

GCAP after going through a number of selection and assessment processes provides part of the cost of the sub-project. The financing model of GCAP is in the form of a Matching Grant Scheme (MGS) where GCAP provides part of the funds needed for the project and the private investor also provides a part. Each sub-project is unique and is based on the contractual arrangement between GCAP and the private investor. There is no standardised contract which the private investors sign. However, as part of GCAP's general guidelines, it does not provide more than 80 percent of the total cost of the sub-project.

Risks are shared based on what is stipulated in the contractual agreement. All parties can trigger the necessary remedies within the contract when a party renege on their obligations. GCAP's benefit in these arrangements is non-financial. Their goal is achieved when productivity of both the private business and the smallholder improves or expands.

GCAP over the years has made a number of interventions towards the realisation of their mandate. For example, they help develop the: community/investor guidelines for large-scale land transactions; model commercial agriculture lease agreement; and the recommendations for large-scale land-based investment in Ghana. Furthermore, they played a key role in the passage of the legislative instrument on Irrigation Development Authority (Irrigation water users association) Regulations, 2016 (L.I. 2230). They are also rehabilitating and modernising the Kpong Left Bank Irrigation Project (KLBIP). In terms of support to the private sector, some of the project supported by GCAP include: support to GADCO towards rice production; Sugarland Ltd to build envirodomes for fruit and vegetable production; Akandem Farm Ltd to construct a warehouse for the aggregation of cereals, legumes and vegetables; and Abians Agro Ltd for the construction of a drying floor and warehouse (https://gcap.org.gh/)

A4: List of projects or strategies for developing agricultural growth poles or corridors in Sub-Saharan Africa

Country	Projects or strategies for developing agricultural growth poles or corridors	Start date	Pole/Corridor status	Backers
South Africa	Programme of agro-food Special Economic Zones at the Maluti-A-Phofung SEZ in Harrismith, and on the SEZs of Musina/Makhado	2016	Underway	
Burkina Faso	Bagré growth pole project (PPCB)	2011	Underway	WB, AfDB
Burkina Faso	Samendeni growth pole		Preparation phase	
Burkina Faso	Sourou growth pole		Planned	
Burundi	Great Lakes Regional Integrated Agriculture Development Project, 2017-2022		Underway	WB
Cameroun	The government's 2012-2020 agropole programme. 36 agropoles underway according to the government.	2012	Underway	
Cameroun	The 2010 growth sector competitiveness project restructured in 2013. The planned industrial-maritime complex replaced by an integrated growth pole.	2013	Completed	WB
Côte d'Ivoire	Agro-industrial pole project in the region of Bélier (2PAI BELIER) near Yamoussoukro	2017	Underway	AfDB
Côte d'Ivoire	Agro-industrial pole project in the region of Poro (PPAI-PORO)		Planned	AfDB
Côte d'Ivoire	Agro-industrial pole project in the region of Tonkpi (2PAI-TONKPI)		Planned	AfDB
Côte d'Ivoire	Agro-industrial pole project in the region of Bounkani		Planned	
Côte d'Ivoire	Agricultural value chain development project in the region of Indénié-Djuablin (PDC-ID), 2016-2020	2016	Underway	AfDB
Ethiopia	Agricultural Commercialisation Clusters initiative (ACC)	2012	Underway	AfDB
Ethiopia	The Agricultural Commercialisation Cluster of Humera	2017	Launched	
Ethiopia	Economic growth corridors	2012	Stopped	
Gabon	Gabon Emergent strategic plan 2011-2016.	2011	Underway	
Gambia	Growth and competitiveness project, 2010-15	2010	Completed	WB
Ghana	Ghana Commercial Agriculture Project, 2012-2017	2012	Underway	WB, USAID
Liberia	Agricultural transformation agenda	2015	Initial stage	AfDB, USAID, EU
Madagascar	Integrated growth pole project	2005	Underway	WB
Madagascar	Second Programme of integrated growth poles and corridors, 2015-2019	2015	Underway	WB
Madagascar	Madagascan agricultural transformation programme		Preparation phase	AfDB
Malawi	National export strategy	2015	Underway	WB, AfDB EIF Trust Fund
Malawi	Shire Valley irrigation project	2013	Underway	WB, AfDB
Malawi	Nacala corridor: Malawi Nacala rail and pot value addition project	2016	Underway	AfDB
Mali	Mali project to support argo-industrial competitiveness, 2017-2022	2016	Underway	WB
Mali	Agropole Programme	2013	Underway	AfDB, WB, WADB

Mauritania	Nouadhibou Eco-Seafood Cluster Project, 2016-2020. Establishment of a cluster in the Free-Trade Zone of Nouadhibou for integration into the seafood value chain.	2016	Underway	WB
Mozambique	Beira Agricultural Growth Corridor (BAGC) launched in 2010 (based on the Beira development and transport corridor).	2010	Underway	WB, AfDB
Mozambique	Integrated Growth Poles Project, 2013-2019	2013	Underway	WB
Mozambique	Economic development corridors linking agricultural zones with ports in Mozambique and Tanzania (Mtwara Development Corridor launched in 2015 and Corridor Pemba-Lichinga, supported by the AfDB).	2015	Underway	AfDB
Niger	The Kandadji hydro-electric dam project (2013-2021)	2017	Preparation phase	ADFD, AFD, AfDB, BADEA IDB, EBID, WB WADB, SFD OFID
Nigeria	Staple Crop Processing Zones (SCPZ) and Agribusiness Investment Regions (ABIR), launched 2011.	2011	Underway	WB, AfDB, IFAD UNIDO, DFID USAID, UNDP BMGates Foundation
RD Congo	Development strategy of 22 agro-industrial parks (PAI) across the country	2014	Underway	WB, AfDB
RD Congo	The West growth pole project in Kongo Central 2016-2020.	2016	Underway	WB
Senegal	WB support for the planned East growth pole	2013	Underway	WB
Senegal	AfDB support for the PAI in Kaniama Kasese, Ngandajika and Mweka.	2014	Underway	AfDB UNIDO
Sierra Leone	Growth Poles Programme beginning 2013	2013	Preparation phase	
Tanzania	Mtwara Development Corridor launched in 2015	2015	Underway	AfDB
Tanzania	Southern Agricultural Growth Corridor of Tanzania (SAGCOT) started in 2010.	2010	Underway	WB, AfDB, JICA
Togo	Project to develop agropoles in Togo (PRODAT – Agropole Project)	2016	Preparation phase	AfDB
Zambia	Project to develop the Luswishi agricultural block	2017	Preparation phase	AfDB
Zimbabwe	PPF –Project to develop the agricultural growth corridors of Beitbridge, Plumtree et Harare		Planned	AfDB

Source: Oxfam France, AAH and CCFD-Terre Solidaire, 2017

A5: Survey instrument (Interview guides)

Interview guide

(PPP related institutions and development partners)

**Introduce yourself and state the purpose of the project and the interview*

**Seek the consent of the respondents to record the interview session.*

1. Basic characteristics of the respondent

Name of Respondent	
Gender	
Age	
Name and type of organization/institution	
Position of respondent within the organization/institution	
Location	
Date of Interview	

2. Can you tell us briefly about your organization and your functions?
3. Have you heard of Public-Private Partnerships (PPPs) and what is your understanding of this concept?
4. What types of PPP models are you conversant with?
5. Is your institution involved in any kind of PPPs in Ghana?
    a. If yes, in which sector, what is the nature of the arrangement, who are your partners, what are their roles, and who are the beneficiaries?
    b. What is the rationale for this kind of partnership(s)
    c. Has this partnership been successful and what constitute success for you?
6. Are you aware of Ghana's PPP policy?
    a. If yes, how conversant are you with its content?
7. What is your general take on the PPP environment in Ghana?
8. Has government created the enabling environment for PPPs to thrive in Ghana?
9. Do you think the agriculture sector needs PPPs to develop and innovate?
10. If yes, what areas do you think these arrangements are needed the most?
11. Have you sighted or are you aware of any policy document on PPP in the agriculture sector?
12. Is a specific PPP policy for the agriculture sector relevant?
13. Is the general PPP policy not adequate to guide the implementation of PPPs in the agriculture sector?
14. As things pertain now, what is your general take on the PPP environment in the agriculture sector in Ghana?
15. Do you know of any PPPs (whether functional or not) in the agricultural sector of Ghana?
16. If yes, a. At what level are these PPP types implemented? i.e. macro, meso or micro levels.
    b. Which parties are involved in these types of partnerships and what are their roles?
    c. For the functional ones, do you think their operations are sustainable?
17. What do you think accounts for the relatively higher numbers and successful implementation of PPP's in other sectors like energy compared to that of the agriculture sector in Ghana?
18. In the general scheme of things, has government created the enabling environment for PPPs in the agriculture sector to thrive in Ghana?
19. Do you know the financing and administrative structure of any of the agriculture sector PPPs?
20. Do you know of any best practices on the continent or outside that promotes PPP in the agriculture sector?
21. Comparing Ghana's situation to best practices, what gaps do you see between best practices and Ghana's practices?
22. What factors should be considered when developing effective and sustainable PPPs for the agricultural sector?
23. Can you elaborate further? How do these factors contribute to the development of effective and sustainable agriculture sector PPPs?
24. What factors are currently impeding the development of effective and sustainable agriculture sector PPPs?
25. What can the government do to promote sustainable and effective agriculture sector PPPs in Ghana?
26. Under what conditions can your institution support and enhance potential PPP arrangements?
27. Is there anything else you would like to tell me about agricultural sector PPPs in Ghana?

Thank you for your time

END OF INTERVIEW

Interview guide
(PPP related business/projects)

**Introduce yourself and state the purpose of the project and the interview*
**Seek the consent of the respondents to record the interview session.*

1. Basic characteristics of the respondent

Name of Respondent	
Gender	
Age	
Name and type of organization/institution	
Position of respondent within the organization/institution	
Location	
Date of Interview	

2. Can you tell us briefly about your organisation and your functions? How was the business formed?
3. What specific services do you provide and who are the target beneficiaries?
4. What is the geographical coverage of your services?
5. Have you heard of Public-Private Partnerships (PPPs) and what is your understanding of this concept?
6. What types of PPP models are you conversant with?
7. Can you elaborate on the ones you know?
8. Can you confirm if this enterprise is a PPP?
   a. If yes, with which partners, what are their roles and yours as well?

We will return to more specific questions about your organisation

9. Are you aware of Ghana's PPP policy?
10. If yes, how conversant are you with its content?
11. What is your general take on the PPP environment in Ghana?
12. Has government created the enabling environment for PPPs to thrive in Ghana?
13. Do you think the agriculture sector needs PPPs to develop and innovate?
    a. If yes, what areas do you think these arrangements are needed the most?
14. Have you sighted or are you aware of any policy document on PPP in the agriculture sector?
15. Is a specific PPP for the agriculture sector relevant?
16. Is the general PPP policy not adequate to guide the implementation of PPPs in the agriculture sector?
17. As things pertain now, what is your general take on the PPP environment in the agriculture sector in Ghana?
18. Do you know of other PPPs (whether functional or not) like yours in the agriculture sector?
19. What are these other enterprises/firms/organisations into? What sub-sectors are they located?
20. What do you think accounts for the relatively higher numbers and successful implementation of PPP's in other sectors like energy compared to that of the agriculture sector in Ghana?
21. In the general scheme of things, has government created the enabling environment for PPPs in the agriculture sector to thrive in Ghana?
22. Do you know of any best practices on the continent or outside that promotes PPP in the agriculture sector?
23. Comparing Ghana's situation to best practices, what gaps do you see between best practices and Ghana's practices?

The next set of questions are specific to your organisation

24. What is the nature of this PPP arrangement? What type of PPP is in place?
25. What is the financing structure of this enterprise? What is the operational organogram of the organisation?
26. How are costs, risks and benefits shared among all the parties involved?
27. What factors do you consider as critical to the success of this partnership?
28. What challenges have been encountered in the course of your operations that have hindered the successful implementation of this partnership?
29. What do you think should be improved for this partnership to achieve its desired results?
30. Generally, what factors are currently impeding the development of effective and sustainable agriculture sector PPPs?
31. What is your expectation of government with regards to promoting PPPs like yours in Ghana?
32. Could the services you provide be done by the private sector or government alone?
33. What could be the consequences of such an option?
34. Is there anything else you would like to tell me about agricultural sector PPPs in Ghana?

Thank you for your time

END OF INTERVIEW