Public-Private Partnerships for Inclusive Agribusiness Sustainability in Africa

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Summary

This paper examines important areas where Public-Private Partnerships (PPPs) have been effective in agribusiness and agro-industrial development, and assesses whether PPPs are being increasingly promoted as a mechanism for pooling the needed finance in agribusiness. The study explores the current state of knowledge in relation to PPPs. It also reviews some of the relevant discussions on the use of PPP in agribusiness in the last decade. PPPs are increasingly used in joint agricultural research, innovation and technology transfer, building and upgrading market infrastructure, and delivery of business development services to farmers, small and medium enterprises. The use of PPPs has the potential of propelling sustainable and inclusive agribusiness development in African countries despite the outstanding challenges. Strong political will, good governance, and provision of enabling economic and regulatory environment by the public sector for the private sector to operate are major drivers of success of PPPs implementation in agribusiness. Development of agribusiness and agro-industries in African countries require a substantial infusion of both fixed and working capitals from private sector which are difficult for the public sector alone to provide.

Key words

Agri-PPPs, agricultural transformation, value based food chain, inclusive economic growth, multi-stakeholder structures, sustainable agriculture

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Received: December 2, 2017 · Accepted: March 2, 2018

Introduction

Partnership is a deep-rooted way of how society is organized. In contemporary context, PPPs emerged in the 1980's in the context of privatisation and de-regularisation under Regan in the United States of America, and Thatcher in the United Kingdom (Heinze and Strünck, 2005). These (PPPs) are now seen widely as vehicle for the delivery of public infrastructure projects (Tolani, 2015). The term PPP is defined as 'joint planning, joint execution and the sharing of costs, risks and benefits between private and public sectors in a particular project' (Spielman et al., 2007). PPP is "a cooperative venture between the public and private sectors built on the expertise of each partner that best meets clearly defined goals through the allocation of resources, risks and rewards" (Canadian Council for Public-Private Partnerships, 2004; Narrod et al., 2009; United Republic of Tanzania, 2009). It is a legally-binding contract between government and private businesses for the provision of assets and the delivery of services that allocates responsibilities and business risks among the various partners (Roehricha et al., 2014). PPP is a financial model that enables the public sector to make use of private finance (Hodge and Greve, 2005). According to the World Bank (2016), PPPs is a way of: introducing private sector technology and innovation in providing better public services through improved operational efficiency; incentivizing the private sector to deliver projects on time and within budget, and imposing budgetary certainty by setting present and the future costs of infrastructure projects over time.

PPPs take place in a wide range of sectors and may sometimes involve complex coalitions of partners, such as donor agencies and Non-Government Organisations (Kindornay and Higgins, 2012). The concept is being embraced by many developing and emerging economies due to rising expenditures for refurbishing, maintaining and operating public assets, increasing constraints on government budgets, and innovation through private sector and better risk management (World Bank, 2016). The PPPs mechanism is inherently designed to address the issue of affordability by pooling funds from various sources to overcome the limited funding available in the public sector (such as agricultural sector). Many of the PPPs are performance-based contracts under which the private sector supplies public services over time and is paid by the public sector, end user or a hybrid of both. Output is specified by the contracting authority, while input is the sole responsibility of the private sector. It is now a common practice in every tier of government (national, state, and local) to engage the private sector to meet the public need.

PPPs in agriculture (known as 'agri-PPPs') are relatively new but display a growing interest in developing countries (Ferroni and Castle, 2011; Poulton and Macartney, 2012). An agri-PPP is very difficult to define because it differs in scale, aim, actors involved, and structural arrangements. The 2016 Food and Agriculture Organization study (FAO, 2016a) considered agri-PPPs as a formalized partnership between public institutions and private partners (agribusiness firms and farmers) designed to address sustainable agricultural development objectives, where the public benefits from the partnership are clearly defined, investment contributions and risk are shared, and active roles exist for all partners at various stages throughout the PPP project lifecycle. Agri-PPP has undertaken a kind of reawakening in the international policy discourse due to limited government resources and expertise to boost agricultural production and efficiency (Poulton and Macartney, 2012; FAO, 2016a). The flow of interest in agri-PPPs has clearly been shown in: some development literature (such as Brickell and Elias, 2013; Boland, 2012; STDF and IDB, 2012; Spielman *et al.*, 2010); in development agency strategies promoting private-sector engagement (FAO, 2013a; IFAD, 2012; GIZ, 2011; MFA, 2010; BCLC, 2009), and in the design of country-level PPP policies and laws (Government of Peru, 2012; Government of Malawi, 2011; Government of Uganda, 2010) and national agricultural development strategies (Government of Kenya, 2010; Government of Pakistan, 2008).

There have been studies on the applications of PPPs (Whitfield, 2010) that showed how PPPs models have been adapted to the economic, political and legal environments of different countries in Europe, North America, Australia, Russia, China, India and Brazil, such as FAO (2016a) appraisals of PPPs implemented in 15 countries in Africa, Asia and Latin America with a primary objective of drawing lessons that guide partners effectively to mobilize support for agribusiness development, and Santacoloma and Mhlanga (2012) appraisal on how PPPs have been used to improve productivity and drive growth in the agriculture sector in sub-Sahara Africa (SSA) with a focused on 26 cases in five countries (Ghana, Kenya, Nigeria, Tanzania, and Uganda). This paper is distinct from all these studies because it attempts to answer the question of whether PPPs models can lead to sustainable and inclusive agribusiness and agro-industrial development in developing countries.

The major objective of this study is to analyse how PPPs are considered as a proper model for a sustainable and inclusive agribusiness and agro-industrial development through lessons and success stories from some selected developing African countries.

The specific objectives are to:

- review policy and legislations of PPPs in developing countries,
- discuss the important roles of PPPs in Agribusiness transformation,
- explain the forms of PPPs and the relevance in value-based food chains models,
- analyse the status of PPP in agribusiness and agro-industries development in some selected developing countries by using case study approach,
- examine the potential risks and drivers of success of PPPs implementation in developing countries,
- discuss the challenges and suggest ways on how PPPs can be used for sustainable and inclusive agribusiness and agro-industries development in developing countries.

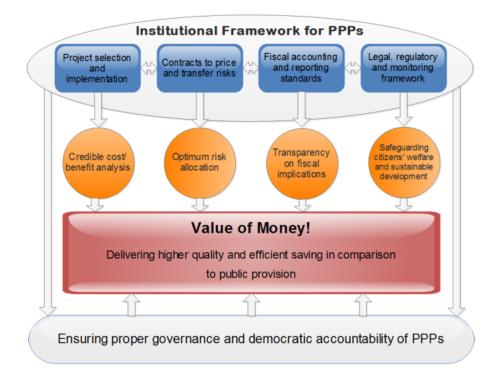
Materials and methods

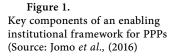
This study uses archival information from literature on PPP papers, reports from relevant agencies in the selected African developing countries responsible for policy formulation and management of PPPs, and discussion on PPPs with experts. The information gathered was used to get the background information on PPPs from different countries, as well as the bottlenecks and enabling factors of using PPPs in agribusiness and agro-industries. The findings are presented with the use of charts.

Presentation of findings

PPP Institutional and Legal Frameworks and Policies in Developing Countries

Critical to the implementation of PPP models is an enabling legal framework. PPPs frameworks are joint initiatives between governments and the private sector designed to create a better





business environment for agribusiness, stimulate growth in the rural economy, generate employment and create new markets for food producers (Oram and Wijeratna, 2014). In PPPs framework, the public sector correctly identifies and selects projects where PPPs would be viable to ensure an appropriate pricing and transfer of risks to private partners, establishes a comprehensive and transparent fiscal accounting and reports standard for PPPs, and establishes legal, regulatory and monitoring frameworks (Oze, 2014) (Figure 1).

Government decides to enact a PPP law or a concession law for a number of reasons. These include: setting priority to a process of developing, procuring and reviewing PPP projects that will take priority or to establish a clear institutional framework for developing, procuring and implementing PPPs. PPP laws are used to close the gaps in the laws of a host country to allow for successful PPP projects, such as enabling the grant of step-in rights to lenders and requiring open and fair procurement processes. These modifications may be embodied in sector-specific law, or in the case of procurement or competition law, or included in a general concession or PPP laws that vary across countries. Examples of PPPs Regulatory frameworks and policies in some developing African countries extracted from PPP Knowledge Lab (2016) are:

Nigeria: The entire PPP framework in Nigeria hinges on the principles of achieving better value and affordable services. As expressed in the National Policy Document, there are economic, social and environmental objectives for the adoption of PPP model as a strategy for infrastructure development. It is the belief of the government that a private-sector led infrastructure development drive through PPPs will open up the infrastructure and service delivery landscape in Nigeria to efficiency, inclusive access and overall improvement of the quality of public service delivery in a sustainable way. The main body governing PPPs is the Infrastructure Concession Regulatory Commission, and this regulates and supervises the PPP sector and coordinates the interests of public-sector agencies and their private-sector partners. Each state however exercises relative autonomy in implementing their own projects; makes and enforces its own laws and regulations. The consistency of the framework for implementing PPPs also varies depending on sectors or layers of government. Many arrangements and contracts are executed at the state level. The 2015 EIU Africa placed Nigeria within the bottom five countries in the region on PPP readiness.

Ghana: Ghana government adopted a national policy on PPP on June 3, 2011. The policy stipulates that PPPs could be undertaken in all sectors and by all government units if the project meets the need, risk, value, and affordability standards. The policy states that a project must be in a sector identified by the National Infrastructure Plan. The policy also sets out that PPPs are guided by principles that include value for money, optimized risk allocation, end-user ability to pay, accountability and transparency. The National Policy on PPPs also emphasized the need for an infrastructure financing facility to attract fixed rate long term local financing as on July 21, 2014, the Parliament of Ghana endorsed the Infrastructure Investment Fund Bill.

Kenya: PPP in Kenya is defined as a performance-based contract under which the private sector supplies public services overtime and is paid by the public sector, end user or a hybrid of both. Output is specified by Contracting Authority while inputs are the responsibilities of the private sector. Guidelines were passed in 2009, marking the first set of regulations governing concession projects. Previously, projects were awarded based on general law, and subsequently through the law governing public procurement. The 2009 Guidelines were followed by the PPP Act in 2013, which governs private investment in public projects, irrespective of the government agency contracting out the service or asset. This fullfledged law has made PPPs an integral part of the Kenya's Private Sector Development Strategy, and has been assessed positively by external commentators. The 2015 EIU Africa Infrascope places Kenya within the top three in the region for PPP readiness.

Three bodies play a significant role in the current PPP process in Kenya: the PPP Unit, the PPP Committee and the "Nodes". The Cabinet and country governments also play an approval role. Located within the National Treasury, the PPP Unit oversees project preparation and planning, serves as a national centre for PPP expertise, and provides technical support for PPP implementation. The "PPP Node", headed by the accounting office of the relevant contracting authority, facilitates identification and screening of PPP projects, appraises each project agreement to ensure viability, ensures that parties comply with the PPP Act, and undertakes tender processes and monitoring.

Malawi: PPPs are regulated by the Public-Private Partnerships Bill of 2010 ("PPP Bill") which was approved on May 18, 2011. The PPP policy document clarifies the vision and rationale behind the introduction of PPP schemes, guiding principles and the implementation framework suited for PPPs to provide remedy for the social services delivery challenges ahead in the country. While PPPs are defined as cooperative ventures, the government makes clear in its PPP policy that the underlying structure is a legally enforceable contract that is typically long-term and ranges from 10 to 50 years (GoM, 2011). All PPP arrangements in Malawi are guided by Achieving Value for Money (VfM), risk allocation, public interest and consumer rights, affordability, accountability, transparency, local participation, content and technology transfer, competition, stakeholder consultation, and are undertaken under the Public Procurement Act.

Uganda: Uganda PPP Policy Framework of 2010 derives its legal force from the constitution of Uganda (1995) that provides the overall legal policy framework for the central government to plan and implement development program to benefit all the people in the country. New PPP law was initiated in July 2015 to replace the legal framework to regulate the development and implementation of PPPs in the country. The new law's objective is to regulate the procurement, implementation, maintenance, operation, management and monitoring of PPPs from project conception to conclusion. It explains the core infrastructure areas for which PPP arrangements may be engaged to include transportation, water management, oil and gas pipelines, tourist infrastructure, sports and recreational facilities, mining, energy related facilities, and social infrastructure.

The Act requires a private party to be incorporated in Uganda as a special purpose company for the purposes of implementing a specific PPP. The Act further limits any share capital and shareholding alterations to the company without the express approval of the Minister of Finance, Planning and Economic Development and the respective ministry under which the project falls. There is no specific time frame within which such an approval may be obtained. The scope of the Act is limited to government ministries, departments, and the contracting authorities; local governments are expressly excluded.

There is a requirement that prior to the commencement of a PPP project, the contracting authority must conduct a cost benefit analysis of the project. Once the project is given a green light, it must be registered with the relevant line Ministry. After the said registration, the line Ministry conducts a feasibility study of the project and gives an approval (if any required). Once the approval is obtained, the procurement of the private party can be initiated. In instances where the Ugandan Government is the financial sponsor of the project, there must be ministerial confirmation of availability of funds for the implementation of the PPP project before the procurement process commences. Government is expressly prohibited from borrowing, guaranteeing or raising a loan for a PPP project except with approval by Parliament as provided by the Constitution of Uganda. Projects above a certain monetary value threshold require a Cabinet approval. The Act requires all PPP projects to have specified manpower requirements and permits the appointment of personnel, presumably from the private sector.

The procurement laws in the PPPs Act differ from the mainstream procurement laws under the Public Procurement and Disposal of Public Assets (PPDA) Act. Under the PPDA Act, the government can shortlist and appraise a PPP private partner through a tailor-made PPP procurement process which can involve either competitive or non-competitive procurement methods.

South Africa: The legislation and regulations governing PPP's at a national/provincial and at a municipal government level differ. National and provincial government are subject to the Public Finance Management Act (Act 1 of 1999) (PFMA) and Treasury Regulation 16 (2004). Municipal government is subject to the Municipal Systems Act (Act 32 of 2003) (MFMA), Municipal Finance Management Act (Act 56 of 2003) and regulation 309 that was drafted to assist in clarifying the MFMA for municipal entities. It is important to underline the fact that municipalities are not subject to the national and provincial PFMA or to Treasury Regulation 16. Other laws and guidelines applicable to PPP's at both National and Municipal level include the National Treasury Code of Good Practice for Black Empowerment in Public-Private Partnerships and the Preferential Procurement Policy Framework Act (Act 5 of 2000).

Significance of PPPs in Agribusiness Transformation in Developing African Countries

Making agricultural production sustainable in the face of climate change is one of the most challenging issues facing many developing African countries, such as Nigeria, in their actions towards the attainment of the 2030's Sustainable Development Goals (SDGs). Developing countries like Uganda, Kenya, Nigeria, Malawi, and Ghana have realized that the high risks and limited governmental financial resources require partnerships in agribusiness and agro-industries development. They have gone for the option of using PPPs by looking to both the domestic private sector and foreign investors to help them at meeting their shortfall in agricultural value chain system given the huge amounts needed and the necessary drive for development (Syngenta Foundation Report, 2008; FAO/UNIDO, 2009). Use of PPPs in agribusiness can help to resolve market or policy failure (ESA, 2016). PPPs in agribusiness have the potential to modernise agribusiness sector and provide numerous benefits to smallholder farmers, processors and marketers. Agri-PPPs is found to reduce the commercial risk for the private sector by offering fiscal incentives and institutional measures to reduce transaction costs, such as by organizing farmers into groups and ensuring exclusive purchase rights for raw materials (FAO, 2016a). Agri-PPP is an important mechanism to harness technology, resources, skills, expertise and market access to improve the livelihoods of resource-poor smallholders in developing countries. Agri-PPPs are designed as vehicles for packaging and structuring existing agribusiness public support services (such as extension and research services), incentives and instruments (competitiveness, innovation and training funds) and channelling them

to farmers and firms to leverage private-sector financial contributions and expertise (FAO, 2016a). Through agri-PPPs agreement, skills and assets of each sector (public and private) a service or a facility for the use of the general public is shared in delivering. The use of PPPs in agribusiness and agro-industries will help to drive economic growth by providing well-planned, well-funded, and well-maintained infrastructure and public services which are significant for trade facilitation and raising the living standards of the people (UNDP, 2015).

Agri-PPPs are game-changing model that transform the moribund agricultural sector that depends on heavy investment in many developing countries to a primary engine for rural growth. PPPs address an area of both public policy and market failure, and are theoretically constructed around common objectives between the actors involved with some sharing of both risk and reward (Oram and Wijeratna, 2014). PPPs are used as "institutional mechanism for gaining access to additional financial resources, sharing of risks, and addressing other constraints in pursuit of sustainable and inclusive agricultural development" (FAO, 2013b, Delmon, 2010). They are particularly important for enhancing social and environmental sustainability and the commercial viability of food supply chains (World Economic Forum, 2013). Uba (2016) described PPPs as the best way to foster development fuelled by insufficient investment, growing pressures on government budgets, and a general concern about service provision by state enterprises and agencies. PPPs offer a new and dynamic approach to managing risk in the delivery of infrastructure and services (Afolabi, 2011).

Agri-PPPs are broadly promoted as having the potential to help modernize the agriculture sector and deliver multiple benefits that can contribute towards the pursuit of sustainable agricultural development that is inclusive of smallholder farmers (World Economic Forum, 2013).

PPPs are essential for advancing agriculture to meet global challenges in food security. Agriculture sector, programs and projects have a risk profile that is dominated by seasonality issues and risks in the form of natural disasters (such as flood and droughts) and climate change-related effects, among others. Public sector has to provide subsidies, incentives, or availability payments to attract private sector participation and find ways to make agriculture projects commercially viable. Public and private therefore partner to explore other factors to balance up through new technologies and innovations that would drive down whole-of-life costs, thus making agricultural programs or projects economically and financial viable. PPPs help to expose state owned enterprises and government to increasing levels of private sector participation (especially foreign), ensure transfer of skills leading to national champions that can run their own operations professionally and eventually export their competencies by bidding for projects/ joint ventures. PPPs are gradually seen as good-looking models for the commercialisation of seed technologies, because they enable publicly-funded research institutions to draw on the marketing and outreach power of private sector actors. This has become especially significant in recent years as many governments have reduced investment in public agricultural extension services, limiting the ability of governments to access farmers. Private companies looking to profit from their investments can arrange for new seeds to reach farmers (Ayyappan et al., 2010).

Forms of PPP

Agribusiness, agro-industry, and market activities are integral to agricultural and rural development. Despite a surge of interest in PPPs in the agribusiness sector in recent years, there remains significant variation in the type of partnerships in this sector (Boettiger, 2011). We have infrastructure PPPs that focus on farm to market roads, water for irrigation, wholesale markets and trading centres, agro-processing facilities or information and communications technology (Warner *et al.*, 2008), and Research and Development PPP's that deal with national and/or international agricultural research organizations. Breeding of quality seeds and production of quality crops are key drivers for these PPPs (Spielman *et al.*, 2007). Knowledge/Technical Expertise PPPs focus on sharing of data, information and knowledge and offer training.

The specific form of PPP depends on the features of the specific goals to be reached by PPP, degree of risk allocation between the public and private sectors, and associated investment levels, and length of the contract period (Uba, 2016). PPP models vary from simple PPP arrangements, such as service or management contracts, to complex arrangement, such as concession and divestiture

Service contract PPP is the most commonly practical form of PPP in developing countries. Under this form of PPP, the public sector hires a private company or entity to carry out one or more specified tasks or services for a period, typically 1–3 years. The public sector remains the primary provider of the infrastructure service and contracts out only portions of its operation to the private partner. The private partner must perform the service at the agreed cost and must typically meet performance standards set by the Public sector. Under a service PPP contract, the government pays the private partner a predetermined fee for the service, which may be based on a one-time fee, unit cost, or other basis.

Management PPP contract expands the services to be contracted out to include some or all of the management and operation of a public sector infrastructure service. Although ultimate obligation for service provision remains with the public sector, daily management control and authority is assigned to the private partner or contractor. In most cases, the private partner provides working capital but no financing for investment. The private partner is paid a predetermined rate for labour and other anticipated operating costs. To provide an incentive for performance improvement, the private partner is paid an additional amount for achieving prespecified targets. Alternatively, the management contractor can be paid a share of profits. The public sector retains the obligation for major capital investment, particularly those related to expanding or substantially improving the system.

Lease PPP contract is another form of PPP where the private sector is responsible for the service in its entirety and undertakes obligations relating to quality and service standards, except for new and replacement investments, which remain the responsibility of the public sector. The private operator provides the service at his expense and risk. The duration of the lease contract is typically above 10 years and may be renewable. Full responsibility for service provision is transferred from the public sector to the private sector and the financial risk for operations and maintenance is borne entirely by the private sector. The private sector makes lease payments to the public sector as contractually agreed. Furthermore, the private operator is responsible for losses and for unpaid consumers' debts.

A concession PPP contract is one that makes the private sector concessionaire responsible for the full delivery of the specified infrastructure services in a specified area, including operation, maintenance, collection, management, construction and rehabilitation of the system. Importantly, the private sector is responsible for all capital investment. Although the private sector is responsible for providing the infrastructure asset, such assets are owned by the public sector even during the concession period. The public sector is responsible for establishing performance standards and ensuring that the concessionaire meets them. In essence, the public sector's role shifts from being the service provider to regulating the price and quality of service. A concession contract is typically valid for 25-30 years so that the operator has sufficient time to recover the capital invested and earn an appropriate return over the life of the concession. The public sector may contribute to the capital investment cost if necessary. This can be an investment "subsidy" (viability gap funding) to achieve commercial viability of the concession. It is reasonable for participants of PPP to use concession scheme for infrastructure projects such as construction/reconstruction and exploitation of irrigation system

The fifth form of PPP is the Build-Operate-Transfer (BOT) / Build-Own-Operate (BOO) / Build-Own-Operate-Transfer (BOOT) / Design-Building-Finance-Operate (DBFO) PPP. This is specifically designed for new projects or investments in facilities that require extensive rehabilitation. Under this arrangements, the private partner typically designs, constructs and operates facilities for a limited period from 15 to 30 years, after which all rights or title to the assets are relinquished to the government. Under a build-operate-own (BOO) contract, the assets remain indefinitely with the private partner. The government will typically pay the BOT partner at a price calculated over the life of the contract to cover its construction and operating costs and provide a reasonable return.

Divestiture, also known as privatization according to World Bank (2013), occurs when all or substantially all the interests of a government in utility asset or a sector are transferred to the private sector. A divested or privatized utility or public service is distinguishable from a private commercial enterprise; in that the government generally retains some indirect form of control or mechanism for regulation over the privatized utility in the form of a license granted to the entity to deliver the service to the public.

Value-based food chains models

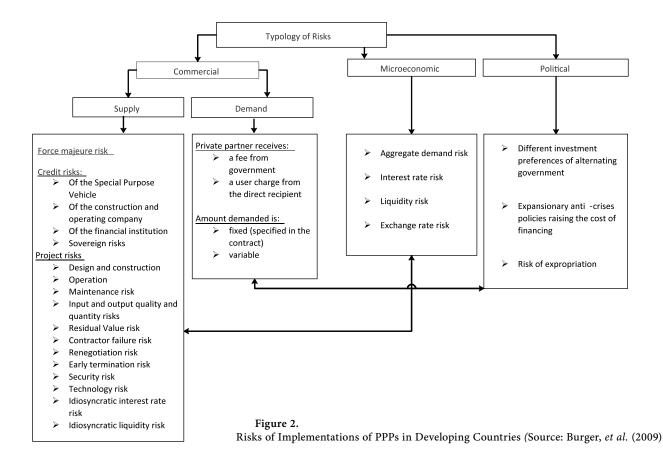
Value chains are defined as "long-term networks of partnering business enterprises working together to maximize value for the partners and end customers of a particular product or service" (Dyer, 2000; Handfield and Nichols, 2002). Value-based food chains (VBFCs) terminology is found in the European scientific literature after 2010 (Pirog and Bregendhal 2012; European Parliament, 2013; Stevenson, 2013) and defined as "strategic alliances between farmers or ranchers and other supply-chain partners that deal in significant volumes of high-quality, differentiated food products and distribute rewards equitably across the chain" (Stevenson and Pirog, 2008, 2013; Lev et al., 2015). VBFC models are largely derived from cases of farmer cooperatives and food hubs (Klein and Michas, 2014). VBFCs represent a business model in which producers and buyers of agricultural products form strategic alliances with other supply chain actors, such as aggregators, processors, distributors, retailers, and consumers, to enhance financial returns through product differentiation that advances social or environmental values

(Diamond et al., 2014). Partners in these business alliances recognize that creating maximum value for their products depends on interdependence, collaboration, and mutual support. VBFC business models place emphasis on both the values associated with the food and the values associated with the business relationships within the food supply chain (Stevenson et al., 2011). The emphasis of VBFCs is on farmer relationships with processors, distributors and retailers with whom farmers have 'business to business' relationships. VBFCs are different from conventional food supply chains because members of conventional food supply chains are competitive or even adversarial with each other. Price, not values, is the key competitive advantage each party looks to maximize (Stevenson and Pirog, 2013). According to Stevenson et al., (2011), a lot of farms are often too small to successfully compete individually in international agriculture commodity markets, while some are too large and/or poorly positioned to directly market food to local consumers. In their findings, while the very small and very large farms have increased in numbers, farms of the middle are disappearing (Duffy, 2008). The realization of the potential comparative advantage of farms of the middle in the emerging markets is therefore making individual farms that cannot produce the necessary volumes required for the new markets, and commodity farms that are not designed to produce the necessary quality and differentiation to go into strategic business partnerships with the farms of the middle in order to expand the markets with added values. The coming together of the partners to explore and develop midscale food value chains are based on trust, transparency, and win-win relationships.

Risks and drivers of success of PPPs in agribusiness in developing African countries

The old proverb that "nothing ventured, nothing gained" captures the essence of the risk/ reward relationship in PPPs in agribusiness and agro-industry. The experiences in some countries suggest that the implementation of PPPs failed to yield the expected outcomes and resulted in a significant rise in government fiscal liabilities (Akitoby et al., 2007; Bain, 2009). Some of the risks in PPPs often lead to cancellations and/or significant renegotiations. The evidence from developing countries indicates that actual or perceived rise in tariffs, macroeconomic fluctuations in currency or purchasing power, inadequate regulatory and institutional environments, societal discontent against the private sector and political reneging (Gomez-Ibanez et al., 2004) are some of the key reasons for the failure of PPP projects (Figure 2). South Africa government for instance has identified a number of risks (such as demand risk, residual value risk, exchange rate risk, renegotiation risk, early termination risk, and inflation risk) from PPPs to which their budget is exposed through contractual structures and guarantees, as well as through the institutional framework. The budget includes provisions for the expected annual cost of these risks that are treated as contingent liabilities.

The drivers for success of PPPs in agribusiness in line with FAO (2016b) include: political commitment, political and economic stability or good governance, sound institutional and regulatory frameworks, a judicious land governance system, transparent selection and budgetary processes for selection of PPP projects, equitable sharing of risk, and technical and management capacity. Improving access of smallholders to finance through the incorporation of financial institutions into the partnership agreement is



observed as critical factor to the success of agri-PPP. Most successful economic development PPPs is the result of a selection process which includes verification of the technical and financial capability of the private partner.

Challenges for PPPs implementation in agribusiness and agro-industries in developing African countries

The high risk (actual and perceived) of doing business in agriculture often deters private sector participation in agrifood sector investments (FAO, 2013b). In general, many factors have been observed to influence the success of an agribusiness enterprise making PPP project design for agribusiness development very challenging (FAO, 2003c). Some of these factors are: natural factors associated with agricultural production (e.g. climate, diseases), market factors and the influence of government policies. Despite the progress made in the implementation of PPPs in agribusiness by a number of African developing countries, some challenges have been identified from a number of case studies relating to the implementation with a view of identifying a number of recommendations. The biggest challenge lies in the lack of institutional capacity to manage and maximise the potential of the partnership arrangement. Others include: lack of comprehensive policy or policy direction (Daramola, 2011), legal and institutional frameworks that provide clear guidelines and procedures for development and implementation of PPPs; lack of realistic and comprehensive technical, socio-economic and commercial feasibility analysis which leads to poor project design (such as the case of Graft Taints Power Purchasing Agreement in Tanzania); mistrust/ inconsistent commitment among the implementing agencies, inadequate enabling environment like lack

of long-term financing instruments and appropriate risk sharing mechanisms; insufficient capacity negotiations, implementation and management of PPPs and high transaction costs associated with sourcing from numerous smallholders in agribusiness.

Examples of PPPs deals in agribusiness in some Developing African Countries

Many developing countries have gone into the development of agricultural value chains to increase food security and nutrition by engaging the private sector in supply-chain management and value added food processing for the consumer markets in partnership with local and national government. However, there is still limited systematic information available about the current experiences and best practice of PPPs in agribusiness. The countries were selected after extensive country-focused scoping and because of some of the level of achievements in the implementation of PPPs in agribusiness from where important lessons can be drawn for other countries to follow. The case examples of the use of PPPs in agribusiness and agro-industry drawn from various sources such as: PPP Knowledge Lab (2016); Oram and Wijeratna (2014); FAO (2013a); Government of Malawi (GoM) (2010, 2012a,b); Spielman *et al.*, (2007) in some selected countries in developing countries are.

Nigeria: In Nigeria, PPPs are being promoted as an important institutional mechanism for gaining access to additional financial resources, sharing of risks, and addressing other constraints in pursuit of sustainable and inclusive agricultural development. The Government is treating agriculture as a business by integrating food production, storage, food processing and industrial manufacturing by value chains (from farm to fork). Both domestic and foreign investments are promoted by harnessing private-sector know-how and resources through partnerships to improve both commercial and development outcomes.

Innovation and technology transfer under Agric-Youth Empowerment Scheme Project in Lagos, Nigeria, which started in 2009 with the objective of increasing food security, train young agribusiness entrepreneur, develop local infrastructures, provide employment for rural people and offer improved and sustainable agriculture, is an example. Other critical area for Lagos State government is in infrastructure project where the PPPs were employed. The state government had gone into 30-year PPPs concession, to design, construct, finance and operate the 49.36 km Eti-Osa-Lekki-Epe Expressway to eliminate severe traffic gridlock along the concession area. Island Power Limited is another PPP project Lagosians are benefitting. This is a BOT concession for a 9.7 megawatt Independent Power Plant between the Lagos State government and Negris Group. The project is to provide uninterrupted power supply for the judicial and health facilities, as well as 20 streets in the Lagos Island Central Business District. The project has helped in eradicating 30 diesels and petrol generators and provided a cleaner source of energy. Lagos State government has also been collaborating with the private sector in area of transportation particularly the Bus Rapid Transit (BRT), the first of its kind in sub-Saharan Africa. The transport system that moves about 200,000 commuters daily has helped in reducing travel time by 30% and creating over 5,000 direct and indirect jobs. PPP in Lagos State on infrastructure, power plants and transportation have direct or indirect effects on agribusiness and agro-industrial development.

Ghana: In Ghana, PPPs have been targeted for extension services, research and innovation development, and for agricultural mechanization. The Medium Term Agriculture Sector Investment Plan (METASIP) 2011-2015 specifically targets a cost recovery of about 25.5 percent of the estimated domestic funds through Public-Private Partnerships (MOFA, 2011). In Ghana there is the rubber project as an example of PPP between the Agricultural Development Bank of Ghana and Agence Francaise de Development (AFD) in France. The purpose of the project is to rehabilitate the distressed rubber estates, which used to be a traditional source of export commodity for the Country. The objectives of the agribusiness investment are to, among others, cultivate 50 000 hectares of rubber by 2020 and rehabilitate the road infrastructure in the respective districts. Other examples of PPPs in Ghana include: Sorghum Value Chain Development Project - a European Cooperative for Rural Development (EUCORD) sponsored project. Guinness Ghana Breweries Limited (GGBL) is the Private Sector Partner with TechnoServe (TNS) as the implementing partner. The Allanblackia Project is a PPP project between Unilever, the Novel Development Ghana Limited (NDGL), the International Tree Seed Centre, the Forestry Research Institute of Ghana (a public research institute), and some other organizations. The project is an initiative to turn the seed of the Allanblackia tree into a second "cocoa" for Ghana. In addition, we have the Cadbury Cocoa Partnership (CCP). This involves Cadbury (now Kraft Foods), Ghana Cocoa Board (a public institution), implementing partners (international NGOs), and cocoa-growing communities. The purpose of the partnership is generally to provide extension services in selected communities to enhance productivity and incomes thereby improve the socio-economic conditions of the farmers. The Buabin Oil Palm Outgrower Project (BOPOP) is also a PPP arrangement between

the Government of Ghana (Ministry of Food and Agriculture), the AFD, and Kreditanstalt fur Wiederaufbau (KfW - a German development bank). The goal of the project is to improve the palm oil industry in the relevant ecological zones.

Kenya: A multi-partner Agriculture Index Insurance Initiative is an example of PPP in Kenya. This explores and develops the potential of micro-insurance for smallholder farmers. The insurance is branded as Kilimo Salama (KS), means 'safe'. With KS, smallholders can insure selected farm inputs at their local retailer and pay half of the premium.

Coffee PPPs in Central Kenya is another example. The government of Kenya supports agricultural PPPs through collaborative programmes such as Kenya Agricultural Productivity and Agribusiness Program (KAPAP), Agricultural Innovation Program, the Smallholder Horticulture Development Project (SHDP), Private Sector Development In Agriculture (PSDA), the Smallholder Dairy Commercialization Programme, the Tana Delta Irrigation scheme, and the Warehouse Receipting for Rice and Maize, targeted to smallholder farmers with the aim of promoting the transition to commercial agriculture.

Malawi: Malawi has a number of strategies to transform agriculture through the promotion of public private partnerships. Some of these strategies are: the Malawi Growth and Development Strategy II, the National Export Strategy 2013-2018, and the Agriculture Sector Wide Approach (ASWAp). Key smallholder-based PPPs are in the cotton, sugar and maize sectors, and PPPs are also being promoted for rice, groundnuts and legumes. Smallholder-based outgrower sugarcane PPPs in areas such as Dwangwa in Central Malawi is seen as a key way to generate growth and foreign earnings, reduce export-dependence on tobacco, address domestic energy needs and tackle rural poverty.

Uganda: An example of PPP in Uganda is the Oil Palm Uganda Limited (OPUL). In collaboration with the government, OPUL and farmers are developing 10,000 hectares of oil palm. A third of that land is cultivated by small-scale producers. OPUL manages out growers' schemes for farmers, clears the smallholder producers' land, provides seedlings and fertilizers, and follows up with technical support. It employs over 1,400 Ugandans on its plantation and has built access roads to many remote households on the island. OPUL also provides housing and healthy meals to its employees and runs a local clinic with a clinic officer and a visiting doctor. As a result, overall health conditions have improved and malaria cases have dropped from 100-200 cases to 30-40 cases a month. Also in Uganda, a multi-national team of private and public sector scientists is currently developing biotech bananas in Uganda with increased vitamin A, vitamin E, and iron content.

South Africa: Examples of PPP in SA include: water and sanitation services Concession, sugarcane extension delivery to Small-Scale Grower. In the beverage sector, SABMiller has been working with the South African Department for Science and Technology through the South African Water Futures partnership with the World Wildlife Fund and GIZ. The collaboration aims to identify and respond to water risks faced by hops growers in the Gouritz watershed.

Conclusions and recommendations

Development of agribusiness and agro-industries in developing countries is difficult for the public sector alone to sustain; as such, it requires a substantial infusion of both fixed and working capital by private sector. Governments mainly enter into PPPs because of the need for the public sector to augment its resources. Therefore, building PPPs is a mechanism of ensuring sustainable and inclusive agribusiness and agro-industrial development. PPPs model in the agribusiness sector helps to enhance capital formation, thereby improve strength in the farming system and efficient management practices. PPPs have the potentials to modernise agribusiness and agro-industrial sectors and provide numerous benefits to smallholder farmers. It also helps to accelerate agribusiness investment, strengthen value chain activities and business linkages, mobilise producer communities for economic activities, and promote technology transfer. PPPs assist to conduct joint research that focus on innovations and technology transfer in agriculture, build and upgrade market infrastructure, and deliver business development services to farmers and small and medium enterprises. PPPs improve market access through closer relationships with agribusiness firms, reduction in post-harvest losses, and guarantee markets for farmers through contract-farming agreements in developing countries.

What we can learn from the Yara's Africa Partnership Programmes in Ghana, Malawi, Mozambique, and the United Republic of Tanzania is the fact that public partners in agri-PPPs should only act as catalysts in providing supportive and complementary public goods while the private partners should focus on providing infrastructure, such as road and irrigation facilities where needed. These public goods are in the form of investments, basic education, market information systems, research and extension, as well as in the improvement of institutions (contract law and enforcement, systems of quality grades and standards). Public partners should uphold their roles as regulators and ensure transparency and diligence when selecting private partners for inclusion in projects. Government should make sure that unfair or unmanageable levels of risk are not transferred through the partnership to smallholder farmers and allow the private partners to provide necessary support in agricultural input development.

When deciding whether or not to engage in an agri-PPP, policymakers should ensure that the partnership will represent value for money and generate public benefits that exceed those that could be achieved through alternative modes of public procurement or through private investment alone.

Legislation and regulation concerning land access (one of the chief risks in implementing infrastructure projects), enforceability of contract farming agreements, protection of intellectual property, and other essential issues like natural resources management, food safety, agricultural insurance, arbitration, are critical for the successful implementation of agribusiness PPPs. Political will paramount to the success of PPP efforts can be developed and channelled to promote PPPs. This might be through educating politicians on the benefits of PPP via knowledge centres, or through the creation of PPP advocacy groups at a governmental level that span sectors and can provide informal stewardship for PPPs. Mechanisms must also be developed to decouple the political machinery from the implementation of PPP projects.

Creation of Agency (a special delivery unit) for Agricultural Development within a specific mandate to guide in the implementation of PPPs and in the promotion of agricultural transformation is essential for effective PPPs in agribusiness. Investment in monitoring and evaluation of agri-PPPs should not be left out by all the stakeholders. In addition, the commitment of all partners to transparency in the decision-making process is very important for the survival of agri-PPPs in agribusiness. The effectiveness of the PPP is enhanced when the private sector is rigorously involved in the decision-making process right from the planning stage through to closure of the project. The extent of management autonomy should therefore be given to the private sector.

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