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Addis Ababa University School of Commerce

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Addis Ababa, Ethiopia

**OPPORTUNITIES AND CHALLENGES OF PROMOTING
PUBLIC-PRIVATE PARTNERSHIP PROJECTS: *THE CASE
OF THE ETHIOPIAN IRRIGATION SECTOR***

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PUBLIC-PRIVATE PARTNERSHIP PROJECTS: *THE CASE
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Declaration

This is to certify that the project title: Promoting Public-Private Partnership Projects – Challenges and Opportunities: The Case of The Ethiopian Irrigation Sector, was carried out by me, Seifemichael Mesfin Tirfe under the supervision of Bahran Asrat (PhD). The study is an original work of the researcher and all sources used in the paper are duly acknowledged and comply with the requirements of the regulation of the university.

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STATEMENT OF CERTEFICATION

This is to certify that Seifemichael Mesfin Tirfe has carried out this project work on the topic “**Promoting Public-Private Partnership Projects – Challenges and Opportunities: The Case of The Ethiopian Irrigation Sector,**” under my supervision. This work is original and suitable for the submission in partial fulfillment of the requirement for the award of degree of Masters in Project Management.

Dr. Bahran Asrat

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Abstract

The study was conducted to identify the major challenges and opportunities of the private sector face in PPP irrigation projects. The study is an exploratory research and it has employed a qualitative data research methodology. The research involved primary and secondary data. The secondary data used in the study were laws, policies, regulations, directives and other journals and publications issued and provided by public bodies. The triangulation of the two methods allowed the researcher to develop and comprehensive understand of the concept. The researcher employed content analysis to study documents relevant to PPP. The researcher also conducted face to face and video conference interviews to collect data from participants. The research studied previous research works on PPP prepared by different authors. The participants of the study were seven in total incorporating 3 participants from the private sector, two from the public and two other consultants. They were selected using a non-probable purposive selection. The findings of the study showed that PPP irrigation in Ethiopia has enormous potential for the private investment to participate. However, the private sector faces major challenges related to laws, institutions, access to finance, knowledge of PPP, land administration and perception of communities on PPP irrigation. The activities of the government towards, providing PPP literacy to public institutions, and building coordination between ministries as well as the federal and regional governments, will make the promotion of PPP for irrigation a success story. Finally, the study provided recommendations for the government to provide literacy programs to the public sector. It should also identify the role of its institutions by law and include key ministries and organs in the taskforce in order cascading the activities of the government. It recommends the government to provide for mechanisms that allow FDIs expatriate profits rapidly. It also requests the action of the government to revise its rural landholding laws to ease access to PPP irrigation project lands and finally put in place social mitigation mechanisms to encourage the participation of local communities.

Keywords: *Public Private Partnership, Irrigation, Infrastructure*

Acronyms/abbreviations

AfDB	African Development Bank
ATA	Agricultural Transformation Agency
BOT	Build Own Transfer
BOOT	Build Own Operate Transfer
DBFOM	Design Build Finance Operate Maintain
FDRE	Federal Democratic Republic of Ethiopia
GoE	Government of Ethiopia
GTP	Growth and Transformation Plan
JV	Joint Venture
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MOST	Ministry of Communications and Information Technology
MWIE	Ministry of Water Irrigation and Electricity
NBE	National Bank of Ethiopia
O&M	Operation and Maintenance
PFI	Public Finance Initiative
PPP	Public Private Partnership
SPV	Special Purpose Vehicle
UNESCAP	The United Nations Economic and Social Commission for Asia and the Pacific

CHAPTER ONE: INTRODUCTION

1.1. Background of the study

A project is a temporary activity undertaken to create a unique product, service, or result. The temporary nature of projects indicates that a project has a definite beginning and end. A program is defined as a group of related projects, subprograms, and program activities managed in a coordinated way to obtain benefits not available from managing them individually PMBOK Guide, (2013). The definition of Project is applicable to PPP projects that are currently becoming popular.

The concept of Public-Private Partnership (PPP) is not a new phenomenon that surfaced following the introduction of modern states, it in fact existed for thousands of years advancing from time to time as development projects increased in number and size Cui and Lindly, (2010).

The earlier Public-Private Partnership (PPP) is historically dated as far back as 2 millennia ago when the Roman Empire issued contracts to private infrastructure developers to construct post office networks and undertake the administration of the facility for five years; during that time PPP-like arrangements were created between the private sector and the Roman Empire to construct and manage post office networks for five-year periods with some agreements including the maintenance of associated highways along the network Associates, (2017).

In the 1950th and 60th the need to provide high quality products at lower cost motivated the US government to increase the investment of the private sector while in Europe the use of PPP began to be common with the development of toll roads in Spain Cui and Lindly, (2010). It was only during 1992 the word Public-Private Partnership was used for the first time in a structured system by the UK government to introduce the private finance initiative. Dewulf, Blanken, and Bult-Spiering, (2012).

To most developing countries the study of PPP and application is not common due lack of understanding of the application of PPP by both parties, the users as well as public bodies Urio, (2010). The same was shared by the research conducted by Asubonteng, (2011), who further indicated that not only is the knowledge gap that is prevalent, but it is also the gap in capacity for states to conduct PPP projects.

When we look at the case of Ethiopia, we can fairly say that PPP is a new area of engagement in Ethiopia that came following the enactment of the Public-Private Partnership Proclamation No. 1076/2018 which entered into force in February 2018 *Public-Private Partnership Proclamation (No. 1076/2018)*. The public infrastructure development of Ethiopia requires large investment and expertise that can only be met with the involvement of the private sector. On this Beyene, (2015) presents the challenge where the ever-increasing gap between the public sector's capacity to generate resources for the development of infrastructure projects and the progressing demand of the public for the services that put pressure on the government to explore additional mechanisms of funding projects.

The *Public-Private partnership policy of Ethiopia (2017)* underlines the gap in the infrastructure development and the need for investment so as to support all the major sectors of the economy. This policy which was introduced two years following the coming into effect of GTP II further strengthened the undoubted necessity of developing road, energy and communication sectors for transforming the prevalent agrarian economy to a modern industrialized economy, *Public-Private Partnership Proclamation, proclamation No. (1076/2018)*.

The policy introduces the first proclamation to establish a regulatory framework for Public-Private partnerships and underlines three major factors: 1. The participation of the private sector - included in the state strategy as a mechanism to achieve the development objectives in the infrastructure system. 2. The need to put in place a legal framework that focuses on the promotion and expansion of private developments that facilitates infrastructure projects and 3. The need to establish procedures to successfully transfer infrastructure projects to the private sector using PPP. The state subsequently enacted *Public-Private Partnership*

Proclamation (No. 1076/2018) for this purpose. The government has issued an additional legislation, *Public-Private Partnership Directive* (No.55/2018) following the Proclamation. The directive was significant to clearly define the proclamation and most importantly identify the roles of the parties and to make decision on requested PPP projects.

Not all projects presented as PPP are accepted. Even though large number of projects can be undertaken through Public-Private Partnerships, the country must determine which partnership projects are economically advantageous to the country, *Public-Private Partnership Policy of Ethiopia* (2017).

PPP can be beneficiary for the agriculture sector when it is efficiently used in projects that focus on smallholders, rural communities, investors and the public.

PPP irrigation projects are essential because they are effective in the management of rights associated to water utilization, land administrations and appropriation, provision of the essential financial requirements, irrigation infrastructure development and amicable resolution of conflicts of interest that arises between the private party and the society, and particularly the farmers, Scheumann, Houdret & Brüntrup, (2017). They argue that the public good and common pool resource element of irrigation schemes is the foundation for the success of PPPs in this regard.

The study of PPP for the purpose of advancing irrigation sector of the country is a major area that requires a comprehensive assessment of the practice. Irrigation is championed as the principal factor for achieving sustainable development in Ethiopia; it is also a mechanism to alleviate poverty and guarantee food security through the transformation of the dominantly existing rain-fed agriculture to a mixed rain-fed and irrigation agriculture system Hagos, et al., (2009). The use of irrigation essentially increases agricultural productivity and is pertinent to meet the growing demands of the rapid population growth through guaranteeing food security and reduction of poverty while stimulating economic growth and rural developments, Haile, G & Kassa, A., (2015).

PPP arrangements have been used in irrigation in the form of both simple management contracts and concessions contracts whereby in the previous the private party assumes the responsibility over operation and maintenance while in the latter case the construction, management and financing the irrigation assets over a long period of time relies on the private party PPP Knowledge Lab. (n.d.).

On the year this project study was conducted 2020, the GoE has allocated a total of 14.6 billion Birr for irrigation projects Samuel, (2020). The plan includes the identification of 13 irrigation projects set to be awarded to private investors through a PPP agreement signed between the federal government and the private parties, the estimated cost for the irrigation projects was two billion birr.

As project management has become exceedingly important in the development of large-scale public projects and programs, this study on irrigation for PPP will help address major areas that public authorities face with regards to the promotion, contracting, implementation and the handover of projects. The study will focus on the main areas that are becoming a challenge for the GoE to enhance the interest of the private sector to participate in public private partnership projects with specific focus on irrigation and PPP. The detail study of legal documents and the relevant policy together with the practice is relevant to project management mainly to identify the inherent challenges that cause lack of interest from private parties to take part in irrigation PPP infrastructure projects.

1.2. Statement of the Problem

Theoretically speaking the role of the public sector is achieving social development acting as a non- profit sector whereas the private sector involves as a profit-making institution that applies market-based solutions to problem Singh and Khan, (2015). Conventionally speaking, PPPs when compared with public projects are required to provide improved services at lower costs while the private sector makes a reasonable profit Leigland, (2018). Thus, identifying how PPPs can be well structured in order to support the development sectors and knowing

the major challenges in PPP project management will be essential to determine the success of rolled out project.

Agriculture production, the largest sector in Ethiopia is well known to be the backbone of the country in terms of economic contribution and supports 12 million smallholder farming households producing an estimate of 95 percent of the agricultural production of the country FAO, (2020). Agriculture also accounts for 65 percent of employment for the country and 80 percent of the country's export value ATA, (2019). It is the main economic activity of rural Ethiopia.

Almost all the significant amount of food crop production of Ethiopia that accounts to nearly 97 percent is produced with rainfed agriculture leaving only 3 percent of the production grown using irrigation technology Mendez & Pagalietti, (2015). The contribution of the private sector in irrigation, despite the favorable landscape of the country and the widely distributed water resource is almost inexistent.

On the side of investment, the majority of the irrigation projects undertaken in the country were financed and supported by the state without or with minimum participation of the private sector. The government cannot by itself develop all potential irrigations due to lack of finance. The previous attempts of the government to bring the participation of the private investors to the center stage in the construction of irrigation dams were unpopular. However, it is observed that, the country relaxed regulations to open doors for FDI to also engage in the agriculture sector. While after this attempt, the interest of the private sector to invest in the irrigation development were still low which required the need for a unique arrangement such as Public-Private Partnerships, that provides more flexibility to the private actors.

Ethiopia has prior experiences in PPP projects. The work of Kefiya Financial Technology's Lehulu payment system can be seen as a PPP management contract for utility billing system. It was a one stop shop for payment of electricity, water and landline phone services, UNDP (2015). To the contrary, Lehulu payment was

less successful in terms of generating the targeted profit to the private party despite being the pioneer in unify utility payments to one location. It has been successful in operating nearly one million transactions through its 32 branches which was nearly half the demand (Addis Fortune, 2020). Lehulu's contract was terminated recently following its inefficiency to meet the target agreed between MOST and Lehulu and due to the availability of easy payment mechanisms such as mobile transfer.

The same type of agreement is applicable to the 10 years management contract entered between the city administration and the chamber of commerce to manage Addis Ababa Exhibition and Market Development Enterprise. It was on the other hand a successful venture and resulted in the improvement of annual turnover from birr 2.3 million to over 20 million, Beyene (2008).

Despite the interest of the government of Ethiopia to increase the development of irrigation in the country, it faces several challenges in convincing the private sector to engage as per the directions of the Public-Private Partnership Policy (2017). The state developed a PPP policy, proclamation and directive between 2017 and 2019. The PPP directorate general initially identified 17 pipeline projects out of which fourteen 14 are energy sector projects, while the remaining 3 are in the transport sector, PPP pipeline projects (2018). Despite having identified these projects and others identified at a later stage, including the irrigation projects, the success in awarding this project so far is limited to 2 projects only Abiye, (2019).

So, what does the PPP project framework look like in the Ethiopian's irrigation sector and what are the challenges the government of Ethiopia faces to successfully attract private investors in PPP irrigation? In this perspective, the study will attempt to sufficiently respond to the research questions provided below.

1.3. Research Questions

- What are the institutional and regulatory challenges affecting private investors to participate in Public-Private partnerships for irrigation?
- What are the technical challenges related to the practical implementation of Public-Private Partnership schemes for irrigation?
- What are the psychosocial challenges related to the practical implementation of Public-Private partnership schemes for irrigation?
- What are the financial/ economic problems associated to irrigation projects in Ethiopia?
- What is the potential impact a Public-Private Partnership might have on irrigation projects?

1.4. Objective of the Study

1.4.1. General Objective

The general objective of this study is to assess the challenges and opportunities faced in promoting Public-Private partnership projects in irrigation.

1.4.2. Specific Objectives

- To identify the institutional and regulatory challenges affecting private investors to participate in Public-Private partnerships for irrigation.
- To identify the technical challenges related to the practical implementation of Public-Private partnership schemes for irrigation.
- To identify the psychosocial challenges related to the practical implementation of Public-Private partnership schemes for irrigation.
- To identify the financial/ economic problems associated to irrigation projects in Ethiopia.
- To measure the potential impact a Public-Private partnership might have on the irrigation projects.

1.5. Significance of The Study

The study has paramount importance to all stakeholders involved in PPP projects. PPP and irrigation are new area of engagement for the government and the local private actors that participates in Ethiopia. The challenges faced by the public body are not only limited to irrigation but also inherent to other PPP projects designed for private parties. The study will be a supplementary material for the Ministry of Finance and other relevant ministries to observe the gaps in the advancement of PPP and the reasons behind the reluctance of the private sector to actively evolve in the irrigation sector. Private investors will also obtain deeper understanding of the legal and policy directions and enablers of the sector.

The study will give direction to law and policy makers towards the main takeaways forwarded in the recommendation of the study and it calls for a more favorable and comprehensive legal environment for participations in PPPs. Furthermore, academics can explore more areas for future and continuous studies.

1.6. Scope of the Study

The study mainly deals with the challenges and opportunities of applying Public-Private Partnership scheme to the irrigation sector of Ethiopia. The paper studies the existing irrigation projects in the country to identify the major prospects available for private investors to benefit from and to understand the challenges that hinders the participation of private actors in the sector. The ministry of Finance's Public-Private Partnership Directorate and the relevant authorities including the Ministry of Water, Irrigation and Electricity will be assessed for possible gaps in the promotion of PPP.

The current pilot projects planned for released by MoF as Public-Private partnership will also be studied for favorable nature of the investment and the corresponding commercial and political risks associated. Irrigation is selected for the study because it has currently become the major focus of the office of the

Prime Minister and has been included a pilot project proposed under the PPP arrangement.

1.7. Limitation of the Study

This study has addressed the topic by assessing the data available at the ministry level. Moreover, the feedback from potential participants of the study were crucial for the analysis of the study to discover the missing links in the promotion of Public-Private Partnerships.

As the country is at the early stage of implementing Private Public Partnerships, information availability and provision of access to potential investors has been a challenge. However, data available at the ministry of finance and Ministry of Water, Irrigation and Electricity as well as other open sources has been utilized to enhance the quality of the study analysis.

1.8. Organization of the Study

The study paper is classified into five chapters. The first chapter deals with the introduction part of the study where the statement of the problems, methods used, objective and significance of the study are incorporated. The second chapter reviews theoretical and empirical literature on the irrigation sector and the PPP. The third chapter describes the methodologies employed to conduct the study. The fourth will explain findings and discuss the analysis. The fifth and also final chapter will summarize the findings of the study with some recommendations.

1.9. Definition of Key Terms

PFI – is a transfer of risks of public projects from the public sector to the private parties in partial or in full. It is an allocation of risks on the private investor to construct and assume the responsibilities associated with the project Allen, (2003)

Joint Venture – A contract whereby two or more businesses or people pool their resources and expertise to achieve a particular goal. Risks and benefits are shared Asefeso, (2015).

Special Purpose Vehicle (SPV)Special Purpose Vehicle is a very common finance model nowadays. An SPV or a Special Purpose Entity (SPE) is a legal entity created by a firm (known as the sponsor or originator) by transferring assets to the SPV, to carry out some specific purpose Shajan, (2007).

Irrigation: irrigation is the artificial application of water to the soil through various systems of tubes, pumps, and sprays. Irrigation is usually used in areas where rainfall is irregular or dry times or drought is expected CDC (2019).

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

The purpose of this chapter is to review the theoretical and empirical literatures related to the Public-Private Partnership. The study reviewed several literatures that discusses the nature, component, characteristics and importance of the Public-Private Partnership. The first section of the chapter deals with the theoretical review while the second part of it comprises the empirical review of the study focusing on the trends and developments of the practice with the challenges and opportunities brought incidental to the development of Public-Private Partnerships.

2.2. Theoretical Review

This section will analyze previous studies on PPP to establish the objective of the research. The studies will show the varying level of understandings of PPP and the involved in the study. The positions of previous studies will be included in this part.

2.2.1. PPP: Meaning and Nature

Different documents define PPP in different way based on the projects and stakeholders involved in the contracts. The World Bank definition of Public-Private Partnership describes it as a long-term contract entered 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 World Bank PPP Guide (2017). We can use elements in the definition of the World Bank as common reference for the definitions of subsequent source. The definition identifies two parties that are common in all PPP projects, i.e. the government (state contracting party) and the private sector. It further clarifies the purpose of contracts between the two parties which aims to bring about public assets that commonly give services to people.

The other important element in the definition is assumption of project taken by the private sector in exchange for a performance related remuneration. With this arrangement PPP allows the government to outsource the building of large projects exclusively with investment of the private actors while at the same time transferring major risks to the shoulder of the private party Fioravanti et al., (2019).

The concept of PPP denotes an array of possible relationships established among public and private sectors for the primary purpose of execution of infrastructural and other services. PPP generally applies to different sectors that encompasses agriculture, manufacturing and service sectors. The modalities applicable to different forms of infrastructures vary depending on the type of projects, associated risks and the duration of the investment. Management of the project is also a major factor for selecting a certain modality for PPP. Literatures provide that the private party is highly productive in delivering value compared to public bodies. Delmon, (2011) argues that Public-Private Participation (PPP) in infrastructure is one of the tools in a policy maker's arsenal to help increase investment in infrastructure services and improve its efficiency.

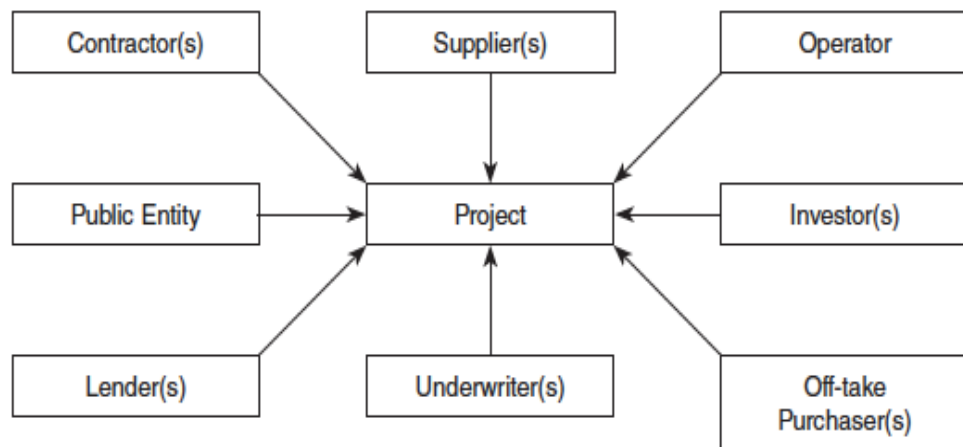
PPPs as defined here have the following key elements involving a long-term contract between a public sector party and a private sector party, the design, construction and operation of public infrastructure by the private-sector party, the use of private sector capital to finance all or a substantial part of the facility's construction, payments made over the life of the PPP contract to the private sector party for use of the facility, either by the public-sector party or by the general public when using the facility or by both sometimes, the management and operation of the facility remaining in public-sector ownership, or handing over to the public sector ownership at the end of the PPP contract, some form of risk sharing between the public and private sector parties, and the provision of a public service, Yescombe, (2018).

The definition of PPP used commonly refer to the development of infrastructure by the private sector based on the agreement it enters with the public sector

counterpart. The challenges associated with the agreement however are different from the challenges commonly seen in infrastructure development contracts. Grimsey and Lewis, (2007) say PPP is a radically a different system of public procurement initiated between the private and public bodies and has its own associated challenges.

The discipline of project management is essential in Public Private management in many aspects. PPP involves several unique stakeholders that comes together for the purpose of achieving a development of an infrastructure facility. Ofori (2012) states that apart from the main project participants, PPP involves many other parties that plays major roles. Common to project management, the defendant stakeholders in PPP will have roles to play and also will be allocated with project related risks. The level of risks associated to each of the parties also vary from one another. The PMBOK Guide, (2013) identifies similar major stakeholders that work to achieve the goals of the project. It commonly identifies the sponsor, customers or users, the seller, business partner, organizational group, functional manager and other managers. The synergy between these stakeholders is an essential combination to undertake projects.

Figure 2.1 Key parties in a PPP Project



Source: Ofori, (2012)

Analyzing the roles of the two contacting parties, it is not always feasible for governments to provide fund for all required public services. Similarly, it is also not feasible for the private sector to engage in all public infrastructure developments. However, public-private partnership becomes crucial upon certain core areas;

A. Provides a better infrastructure solution

Exploring PPPs allows introducing private sector technology and innovation in providing better public services through improved operational efficiency World Bank, (2016). The government is limited in terms of dedicating a research and innovation unit to advance each and every public service. The private sector, driven mostly by profit, on the other hand has the resources to focus on individual service areas. Brining in the private sector as a partner therefore allows the government to develop its capacity to respond to the increasing demand of the public in infrastructural development.

B. Delivery of Projects on time and budget

One of the major challenges of most projects in Ethiopia, especially visible in the construction sector is delay in completion of projects and disagreements resulting from exaggerated cost increments, Hareru (2016). PPP provides for a tailored solution where the private sector will be responsible to provide for the fund and to complete the project on time in order to shortly begin collecting return.

C. Transfer of Risk

Risk an opportunity go hand in hand; Despite the risks involved, the private sector wishes to explore opportunities Parvu (2009). The government can transfer all of its risks to the private sector and allow for the investor to collect benefits through compensations and fees. It can save a long-term value of money by shifting the risks to the private sector for the period it administers and takes control of the project, World Bank, (2016). The government as a regulator and a contacting party can hold the private sector accountable for all liabilities and activities undertaken out of scope and benefits by relocating its investment on other areas.

2.2.2. Characteristics of PPP Modalities

The functions of PPPs are variable to the assets involved in the participation in terms of greenfield projects, i.e. new projects where by they are involved in financing, building and managing of the assets; or in the case of brownfield projects where they are required to receive an existing asset from the public to upgrade and manage it in order to achieve a defined goal, PPP Reference Guide (2017). The characteristics of PPP Modalities are discussed below.

2.2.2.1. Service Contracts

The public body transfers certain service provisions to the private contractor to supply according to the contract. The state on the other hand maintains its role as a supervisory organ. Ownership of capital assets, responsibility of investment and assumption of risks in service contracts remain assumed by the government. The service contract usually lasts between 1-2 years Development Brief (2015).

2.2.2.2. Management Contracts

A management contract is an agreement entered by the government and the private company to transfer the management and operation of the public infrastructure to the private company (PPIF, 2020). Management contracts allow private sector skills to be brought into service design and delivery, operational control, labor management and equipment procurement. The commercial risk associated to the service are assumed by the public sector to provide the payment to the private contractor through a fee arrangement UNESCAP (2020). Operations and Maintenance (O&M) and performance-based maintenance contracts may also fall outside the definition of PPP where they are of short duration and lack substantial investment by the private operator PPP Reference Guide (2017).

2.2.2.3. Afterimage/ Lease Contracts

There are common characteristics between Afterimage and Lease contracts except for a technical difference related to payment. The leaseholder assumes the

responsibility of operating and maintaining the already existing infrastructure or service bearing limited investment cost. The public authority and the lease holding private entity will sign an agreement whereby they share the revenue collected from customers. In the case of Afterimage agreement, the private contractor and the public authority will share revenue collected from the customer while in the case of lease agreement the private contractor retains the revenue collected and makes a lease fee payment to the contracting authority UNESCAP (2020).

2.2.2.4. Design Build or Turnkey Contracts

Turnkey contracts also known as the traditional public sector procurement model for infrastructure facility, are short -term contracts entered with the private contractor to design and build and a project for a payment that is fixed fee or a total cost made at a scheduled period UNESCAP (2020). The infrastructure is transferred to the public authority by the time the private investor completes its contractual responsibility. The private party assumes risks involved in the design and construction phases however, its scale of investment is generally low and for a short-term. They are commonly used for simple projects, or for projects where the performance expected to keep at the same level with proper maintenance. Ownership of capital and responsibility or investment are reserved for the government while the private party partly shares the responsibility of assuming risk. PPP Reference Guide (2017)

2.2.2.5. Concession

Concession is a type of contract agreement between the private contracting party and the public authority that allows the concessionaire, i.e. the private contracting party to build and operate the facility on its own cost Yescombe (2018). The private party then charges the general public a service fee or user charges for using the facility and through the process reimburses itself for the cost incurred during the financing the building and operation of the facility until the concession

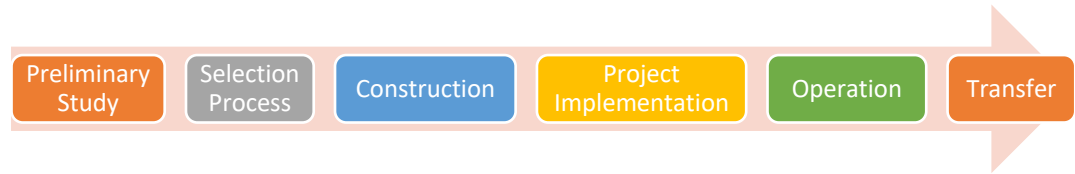
period, the concession period ends the control of the private sector and marks the transfer of the facility to the public party.

The role of the public sector in concessions is to establish the framework within which the concessionaire operates, usually under a general concession law or legislation specific to the particular concession; It mainly has the responsibility to choose a concessionaire and to regulate the detailed requirements for the construction and operation of the facility, usually through a concession agreement signed between the contracting authority and the concessionaire. A common characteristic of all the variants is the long-term duration of the contract and the fact that maintenance and exploitation are outsourced to a private organization Dewulf, Blanken and Bult-Spiering, (2012).

2.2.2.6. Build Operate Transfer Model (BOT)

In the BOT approach, the private contractor receives and possesses the concession for an agreed period of time from the government or public party with an agreement to build (develop) and manage and the public facility. The contract of development involves the responsibility of the private party to finance, design and construct the facility. It further involves the assumption of duties to properly manage and maintain the facility in a manner that guarantees its profitability for the period of time agreed in between them. The private concessionaire therefore receives form the public party and holds the concession under its management for the development and operation. Bashiri et al. (2011) state that concessionaire collects its return from the fee paid by users of the service or the facility within the time the facility stays in its possession where it acts as an owner. At the completion of the period of concession, the private party hands over the ownership of the facility the state party without any charge.

Figure 2.2 BOT Model



Source: Adopted from the process of BOT, Asubonten (2011)

2.2.2.7. Build Own Operate Transfer Model (BOOT)

Build-Own-Operate-Transfer, the most common type and a form of concession in which a public authority makes an agreement with a private company (concessionaire) to Design Build, Own and Operate a specific piece of an infrastructure. The most common types of projects transferred to the concessionaire in the form BOOT are power, transport, water, and telecom industries, within receiving the right to achieve income from the facility under a period of time (concession period approximately 15-25 years), and later transferring it back into public ownership through a single organization or consortium Bashiri et al., (2011). The exact period of concession varies from one article to the other depending on the context of the investment, the amount of finance and its payback period mainly ranging from 5-50 years UNESCAP (2020).

Figure 2.3 BOOT Model



Adopted from the explanation of BOOT, Yescombe (2018)

2.2.2.8. Private Finance Initiative Model (PFI)

In the private finance initiative model, the private sector remains responsible for the design, construction and operation of an infrastructure facility. In some cases, the public sector may relinquish the right of ownership of assets to the private sector. In this model, the public sector purchases infrastructure services from the private sector through a long-term agreement. PFI projects, therefore, put an obligation on the public body to bear a duty to make payments for all the services of the private contractor. Moreover, it has may be subject to contingent liabilities may arise on the government as a result of loan guarantees furnished to lenders and as a result of non-guaranteed loans arising due to the failure of the private or public entity to pay UNESCAP (2020).

2.3. Review of Related Empirical Studies.

Several other studies have been previously conducted by different studies on this topic. Several studies conducted took into factor the existing conditions of the counties under study and presented their findings.

A study conducted by Beyene (2015) to collect the perspective of stakeholders on the factors that influence PPP implementation in the development process was able to ascertain the existence of specific law and the presence of a dedicated public agency are the crucial factors identified by both private and public sectors for the implementation of PPP in Ethiopia. His research finding strongly emphasizes on the need for strong and dedicated institutions of the public sector. He argues that laws by themselves are not enough without robust state institutions. The responses collected by the study also reflected that government provision of loans and its willingness to share risk are rated as less important for the implementation of PPP.

Okwaro, Chepkwony and Boit, (2019) claim that lack of policy direction on the adoption of PPP in the government are the major policy related factors that affect the adoption of PPP procurement. The study further identified that the

applicability of PPP for procurements of large-scale projects makes it less attractive for many investors to risk their finance. The prevalence of corruption and lack of confidence among the employees to make critical decision in managing PPP are also stated as major factors that affect the adoption of PPP.

An assessment made by Asubonteng, (2011) shows that the major challenges are weak capacity to undertake economic and financial evaluation for PPP and mixed or lack of understanding of PPP. Similarly, in the research conducted by Beyene (2015) to assess the existing PPP legal frameworks applicable to Ethiopia, he reviewed the existing laws applicable to PPP to find out that there is a lack of a legal framework that addresses PPP in Ethiopia. Some of the legal gaps identified in later research work are responded after 2017 following the coming into effect of the policy and the respective proclamation came into effect. However, the challenges he proposed are not fully addressed with the coming into effect of the laws per se. They are also imperative in motivating the private sector to show interest in the investment for infrastructure development PPP projects such as the case of irrigation.

The study done by Ismail, (2013) shows that the attractiveness of PPP depends on the continued encouragement of the government to the innovation of the private sector and the authority given to the private parties to freely decide on the design, financing options and operations of the facilities. It also identified the need for both the public as well as the private parties to have information about factors that hinders the adoption of PPP.

Li et al., (2005) conducted a study to identify the most attractive as well as discouraging factors in the promotion of PPP. The study was able to show that PPP is most desirable for encouraging better project technology and economy, greater public benefit, public sector avoidance of regulatory and financial constraints and public sector saving in transaction costs. The negative aspects that were identified as turnoffs were factors related to the inexperience of PPP participants, over-commercialization of projects, and high participation cost and time.

Agarchand and Laishram, (2017) claim that lack of stakeholder and local participation; high bidding and transaction cost; high user charges; improper risk allocation; lack of transparency and accountability; goal conflicts between public and private sector; and lack of skill and knowledge about sustainability affect PPPs. According to Carbonara and Pellegrino, (2014), the shortcomings related to ineffective administrative, financial, and legal issues are paramount to the effectiveness and efficiency of PPPs and a set of interventions are required to strengthen the processes and to advance the body of knowledge.

Studies conducted by Khadra and Sagardoy, (2019) identified the common types of PPP modalities used in different countries within the past 2 ½ decades. The tables below will better explain the most frequent PPP modalities used in the water and irrigation sector.

Table 1 – The list of PPP Projects Implemented in the Mediterranean Region between the years of 1992 and 2018 based on the data from the world bank PPP data (<https://ppi.worldbank.org>). Source: Khadra and Sagardo (2019)

Table 2.1 The list of PPP Projects Implemented in the Mediterranean Region between the years of 1992 and 2018

No	Country	Financial closure year	Project name	Subtype of PPI	Project status	Subsector	Location	Contract period (in years)	Total Investment (in million US\$)
1	Albania	2002	Elbasan Water Supply and Wastewater Treatment Concession	Rehabilitate, operate, and transfer	Cancelled	Water utility with sewerage	City of Elbasan	30	8
2	Albania	2002	Elbasan Water Supply and Wastewater Treatment Concession	Rehabilitate, operate, and transfer	Cancelled	Water utility with sewerage	City of Elbasan	30	n.a
3	Albania	2003	Four-Cities-Project	Management contract	Concluded	Water utility with sewerage	Towns of Durres, Fier, Lezhe and Saranda	5	n.a
4	Albania	2003	Kavaja water and wastewater	Management contract	Concluded	Water utility with sewerage	Town of Kavaja	4	n.a
5	Turkey	1996	Antalya Water and Sewage Services	Lease contract	Cancelled	Water utility with sewerage	Antalya Province, Antalya	10	n.a

No	Country	Financial closure year	Project name	Subtype of PPI	Project status	Subsector	Location	Contract period (in years)	Total Investment (in million US\$)
6	Turkey	1996	Izmit Water Supply Project	Build, operate, and transfer	Active	Other	Kocaeli Province, Izmit	15	942
7	Algeria	2005	Aguas de Skikda SpA	Build, own, and operate	Active	Potable water treatment plant	Skikda, Algeria	25	110
8	Algeria	2005	Beni Saf Water Company SpA	Build, own, and operate	Active	Potable water treatment plant	Oran	25	160
9	Algeria	2005	Hamma Water Desalination SpA	Build, own, and operate	Active	Potable water treatment plant	Algiers	25	240
10	Algeria	2005	Societe des Eaux d' Assainissement d' Alger (SEAL)	Management contract	Concluded	Water utility with sewerage	Algiers, Algeria	5	n.a
11	Algeria	2007	Annaba and El Tarf Management Contract	Management contract	Active	Water utility with sewerage	Annaba and El Tarf provinces	6	n.a
12	Algeria	2007	Oran Management Contract	Management contract	Active	Water utility with sewerage	City of Oran	6	n.a

No	Country	Financial closure year	Project name	Subtype of PPI	Project status	Subsector	Location	Contract period (in years)	Total Investment (in million US\$)
13	Algeria	2007	Tlemcen Hounaine Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	City of Oran	25	230
14	Algeria	2008	Fouka Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	Fouka, province of Tipaza	25	180
15	Algeria	2008	Mostaganem Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	38 miles east of Oran	25	250
16	Algeria	2008	Societe des Eaux et de l'Assainissement de Constantine	Management contract	Active	Water utility with sewerage	Constantine	6	n.a
17	Algeria	2008	Souk Tleta Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	Tlemcen	25	213
18	Algeria	2008	Tenes Lilmiyah Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	City of Tenes, on the Mediterranean coast	25	231

No	Country	Financial closure year	Project name	Subtype of PPI	Project status	Subsector	Location	Contract period (in years)	Total Investment (in million US\$)
19	Algeria	2009	Magtaa Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	Marsa el hadjadj, Oran	25	468
20	Algeria	2009	Magtaa Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	Marsa el hadjadj, Oran	25	n.a
21	Algeria	2011	Société des Eaux d'Assainissement d'Alger (SEAA) second management contract	Management contract	Active	Water utility with sewerage	Algiers, Algeria	5	n.a
22	Egypt, Arab Rep.	2010	New Cairo Wastewater Treatment Plant	Build, operate, and transfer	Active	Sewerage treatment plant	New Cairo City	20	475
23	Egypt, Arab Rep.	2015	Gabal al Asfar Water Treatment Plant Phase 1	Management contract	Active	Water utility with sewerage	Cairo	4	n.a
24	Jordan	1999	Amman Water Treatment and Distribution	Management contract	Concluded	Water utility with sewerage	Amman	6	n.a

No	Country	Financial closure year	Project name	Subtype of PPI	Project status	Subsector	Location	Contract period (in years)	Total Investment (in million US\$)
25	Jordan	2003	Khirbet Al Samra Wastewater Treatment Plant	Build, operate, and transfer	Active	Potable water treatment plant	Zarqa governorate	25	169
26	Jordan	2009	Disi-Amman water conveyer	Build, operate, and transfer	Active	Other	Disi Mudawarra	25	951
27	Jordan	2011	Yarmouk Water Company Management Contract	Management contract	Active	Water utility with sewerage	Jordan	5	n.a
28	Jordan	2012	As-Samra Wastewater Treatment Plant Phase II	Build, rehabilitate, operate, and transfer	Active	Sewerage treatment plant	Zarqa governorate	25	223
29	Lebanon	2002	Tripoli Water	Management contract	Concluded	Water utility without sewerage	Tripoli	4	n.a
30	Morocco	2015	Agadir Desalination Plant	Build, operate, and transfer	Active	Potable water treatment plant	Agadir	20	114
31	Morocco	2018	Agadir Desalination Plant Phase 2	Build, operate, and transfer	Active	Potable water treatment plant	Agadir	27	239,53

No	Country	Financial closure year	Project name	Subtype of PPI	Project status	Subsector	Location	Contract period (in years)	Total Investment (in million US\$)
32	Tunisia	2010	Djerba desalination plant	Build, operate, and transfer	Active	Potable water treatment plant	Djerba	20	95
33	West Bank and Gaza	1996	Gaza Strip Water and Wastewater Treatment Services	Management contract	Concluded	Water utility with sewerage	Gaza	7	n.a
34	West Bank and Gaza	1999	West Bank and Gaza Southern Area Water and Sanitation Improvement Project	Management contract	Cancelled	Water utility with sewerage	Bethlehem and Hebron	4	n.a

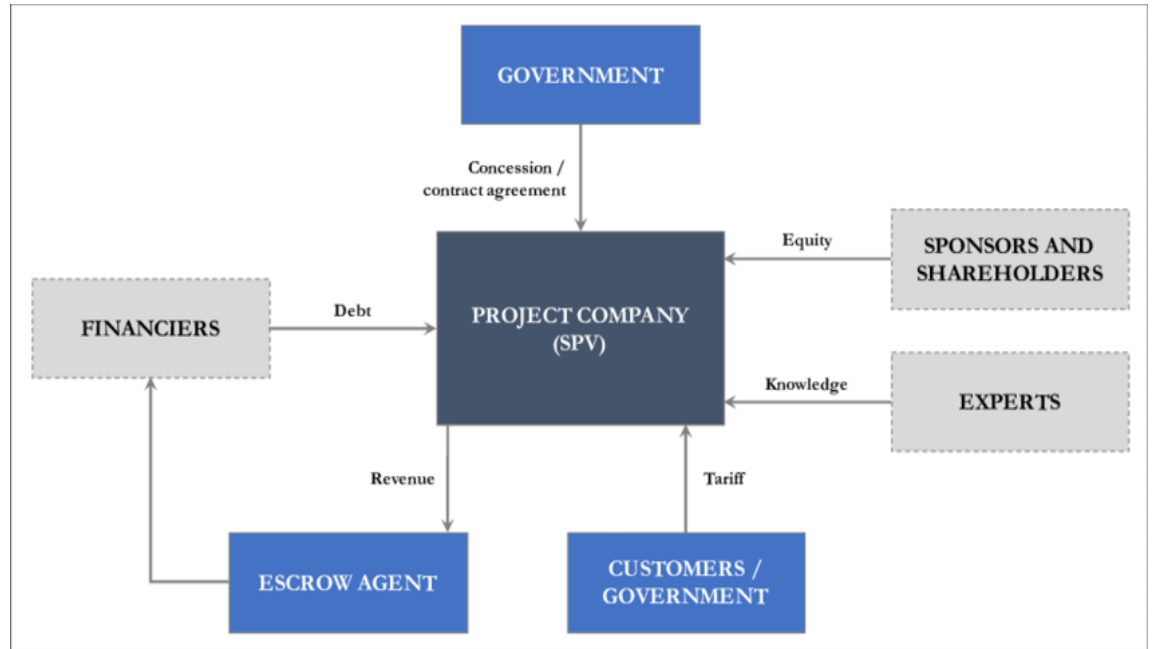
Source: Khadra and Sagardoy (2019)

In Africa, the trend of PPP infrastructure has recently become a common investment option by different countries. The case of Rwanda is a good example for having developed the first water supply in Sub Saharan Africa with PPP financed infrastructure through a BOT model using the fund received from AfDB Douglas, (2015), African Development Bank (2019).

The revolution of financing public infrastructure project by government finance has come to gradually transfer to the private sector with the developments in the PPP sector in Arica. Lake Turkana wind project signed by the Kenyan Government in 2015 and recently completed at GBP 630 million is the largest wind farm in the continent constructed with a PPP agreement between the state and the private party joint venture IPP Journal, (2014). The project is financed with mixed finance contribution through equity debt, mezzanine debt, and senior debt.

PPP has its own structure in the process of issuing PPP contract to private parties. The structure of the PPP may vary depending on the legal procedures of the counties. Lang, (2016) presented the structure of PPP as a model presenting the primary stakeholders of a PPP project.

Figure 2.4 Public-Private Partnership Structure



Source: Lang (2016)

The finance for PPP usually comes from fund of the private sector usually raised from equity contributions (the injection of capital by investors), debt contribution (debt collected from banks, governments or organizations), or mezzanine capital (a combination of the above two) (Linh, (2018). Most private parties wish to increase the amount of investment contribution coming from debt to a relatively lesser ratio of equity (Pratap and Chakrabarti, 2018). The private party aims to decrease its risks to the minimum by allocating debt financed from outside sources. In connection however, it is not advised for the state party to completely transfer all risks to private party. Delmon (2011) argues that it is not recommended for the state party to dump risks to the private sector provided that the project will fall in the risk of being expensive and inefficient and prone to delays and variation.

Yescombe (2017) explains PPP as a transfer of risk from the public sector to the private sector as a mechanism for the public sector to enhance its value by avoiding risks. He looks at the project structure from two ways; affordability and

transfer of risk. The projects developed by the private sector should be able to offer the intended services at a cost the consumer will be able to pay and use. The second element is risk transfer from the public body to the private body which in this case is sometimes sophisticated because the private sector can only control risks that are under its own controls and extraneous risks emerging from factors such as land acquisition are difficult to assume as a private sector.

The normative risk allocation in PPP categorizes the major risks in PPP as political risks, construction risks, commercial risks, financial risks, unexpected event risk and regulatory risks, Pratap and Chakrabarti (2018). The risks associated with PPP are determinant for the successful promotion the venture to the private sector. The risks identified in contrast with the major risks commonly observed in irrigation PPP will be important for the finding of this research.

Table 2.2 Normative risk allocation in PPP

Type of risk	Who should bear it
Political risk including expropriation, non-convertibility or non-transferability	Government should bear the risk. In case of contract termination on account of government default, compensation should be paid by the government
Construction risk (within private partner's control)	Takes the form of construction cost overrun. Private partner should bear the risk through fixed price construction contracts plus liquidated damages
Construction risk (outside private partner's control: government action that delays the project like delays in obtaining environmental approvals)	Government should bear the risk
Commercial risk Operation and maintenance risk Demand risk Payment risk	Private partner should bear the risk
Financial risk Exchange rate risk Interest rate risk Inflation risk	Governments may allow partial indexation of tariffs to inflation and exchange rate as this is beyond the control of private sector. Interest rate risk should be shouldered by the private sector as financial structure is within its control. Government can help through macroeconomic stability
Unexpected event risk (Force Majeure: Acts of God like floods, earthquakes, etc.)	Insurer's risk, if risk is insured. Otherwise, risk should be borne by private partner
Unexpected event risk (policy risk) (Changes in legal or contractual framework directly affecting the project)	Government should bear the risk
Regulatory risk (Tariff risk is the most common type, and refers to the risk that the regulator will not enforce cost-recovering level of tariffs)	Private partner bears this risk. Government should set up autonomous regulatory institutions to mitigate this risk

Source: Pratap and Chakrabarti (2018)

CHAPTER THREE: RESEARCH METHODOLOGY

The research methodology used in the study is described in this chapter. The research design, research approach, population selection and size determination and analysis method employed are explained in detail. The research methodology is elaborate the respective sub-topics.

3.1. Research Approach

The research employs a cross-sectional research approach in order to collect data and analyze the findings in order to respond the question in the objective of the study. A qualitative research approach is employed for conducting the study. Qualitative research allows to identify issues from the perspective of your study participants and understand the meaning and interpretations that they give to behavior, events or objects Hennink, Hutter and Bailey (2020). The study significantly depends on the understanding of people on the topic and the reason they have for their involvements PPP and challenges that exists. The responses of each participants are important for the findings of the study for the objectives of the research can be answered by presenting and validating the responses of participants against documents.

3.2. Research Design

As Gray (2019) describes it, research is the overreaching plan for the collection, measurement and analysis of data. The research design describes the purpose of the study and the kinds of questions being addressed, the techniques to be used for collecting data, approaches to selecting samples and how the data are going to be analyzed. For the study an explorative research design is selected to get an understanding of what has not been covered in previous studies and attempts. Case study is employed to undertake a deeper examination of PPP in Ethiopia recording the experiences of private and public participants together with the comments and gaps identified by consultants. The study uses an explorative research design that explain the nature of PPP in the context of Ethiopia and what

has been achieved in projects so far. It explains the existing experiences of the target study and respond to the question of the study. The study looks at the factors behind the challenges in promoting PPP in the irrigation sector in Ethiopia. The researcher has employed a cross-sectional study on the population size organizing the findings together with content analysis of documents pertinent to the topic of irrigation project promotion.

3.3. Target Population and Census

The study interviewed at total of 7 people consisting 5 interview participants from the private sector (out of which two are consultants), and 2 additional persons from the public sector. The public institutions involved in irrigation sector projects are the Ministry of Finance (MoF), The office of PPP Directorate General, Ministry of Water Irrigation and Energy and the Task Force composed of the above organs. Moreover, the Federal Government and the relevant regional land administrations took part in the list of public bodies associated to PPP irrigation projects.

The private sector includes foreign and local investors that has expertise in the area of PPP and irrigation projects in their past experiences. The private sector also includes consultants that worked and studied on irrigation PPP and has detailed experience on the procedures of the PPP projects in the context of Ethiopia.

The target population is composed of public respondent that have reach experiences in the Public Private Partnership tasks in Ethiopia. They are constituted from the private sector, the public sector and the consultants. The public participants have prior involvement in previous PPP projects including successfully awarded PPP projects. The study in addition participated private sector participants to understand their side of challenges and encouraging factors in the process of PPP project participations. Finally, the study included consultants and lawyers who had participated in works related to PPP in advising their respective clients.

A relatively higher number of participants were from the private sector mainly for collecting the different reasons they believe exist in relation to PPP and for understanding the challenges and opportunities expressed from their diverse perspectives. The public sector has two participants, who have been working in relation to PPP since the coming into effect of the proclamation in 2018. One of the public participants is from the office of PPP directorate general while the other is from MWIE. All participants are selected based on their past and current work experience in connection with PPP using Purposive Selection.

3.4. Data Collection Techniques

The study primarily gathered the data from secondary sources. The data are obtained from Policies (the Public Private Partnership Policy, Public Private Partnership Proclamation, the 2018/2019 PPP Project Pipeline, Public Private Partnership Directive, the FDRE Constitution, relevant news articles and publication. and other documents obtained from the public bodies.

It also employed an interview question to gather the responses of representative stakeholders in PPP to clearly pointing out in the discussions their view of the challenges and opportunities and to understand what the documents and instruments have established for in their procedures. The interviewees are made with consultants, private sector and public sector participants.

The above-mentioned participants have been interviewed independently to conduct an in-depth assessment. The interviewing process aimed at observing the current progresses on the proposed PPP irrigation projects planned to transferred to the private sector.

3.5. Data Analysis

The data analysis used in the study is a qualitative data analysis, which employs content-analysis that focuses on the examination of documentary materials (Kothari, 2004); It allows studies to analyze legal instruments, policy, books,

reports, newspaper and interview responses collected in audio and written formats.

First, in the research, the interview data collected was properly recorded, and then it was condensed to a meaningful unit where it became easier to extract a code word or phrase. The code was finally organized under category and a theme that represents the latent meaning of the unit.

The study used a conventional content analysis to analyze all the open-ended interview responses. The researcher carefully recorded all interviews and listened to the responses.

He then typed down all the PPP challenges raised by participants in relation to each question. Upon registering the challenges, he allocated codes to each words and phrases that express challenges. After the first two interviews, the researcher began using the already established codes to identify the remaining challenges registered from the responses of interviewees. Additional codes were provided for challenges that did not belong to the already established codes.

After the coding of the interview was completed the next step involved, combining codes that belong into one code and shifting the remaining codes. Then codes that had similar characters were sorted into groups and subgroups.

The findings of the content analysis were contrasted with the legal documents to show the similarities of the response with the guiding documents.

3.6. Research Ethics

All confidential documents of the public bodies analyzed for the purpose of reaching at the desired goal of this study are assessed for confidentiality. Materials and information of individuals that participate shall also be kept confidential in order to obtain the maximum amount of information required for the study. Sources of all information are acknowledged properly. Other documents and observations that are publicly available or that are not bound by

confidentially shall be incorporated to the study in a manner that better suits the analysis and findings with the necessary citation use.

4. CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

Introduction

The data collection process primarily involves the analysis of documents (policies, laws, regulations and guides) directly related to regulating PPP and parallel documents regulating that of the irrigation sector. It also studied contracts and briefs that essentially show the trends of PPP in Ethiopia. The purpose of the research is identifying the hurdles facing the GoE from adequately promoting PPP to the private sector for the development of irrigation. The study uses a means of triangulation between document analysis and interviewing. Document analysis is mainly used as a primary source to learn more from the official documents and respond to the objectives of the study which later is analyzed together with a further enquiry made through an interview.

General Information of Participants

The interview involved a total of 7 participants out of whom 2 are from the public sector, persons involved in PPP and irrigation, and the remaining are from the private sector evenly distributed between private investments and consultants.

The first interviewee, a private investor has years of experience in large international investment projects in Africa and has individually and through his company participated in several bids and also invested in several infrastructure investments in the continent. He also follows and is interested to participate in PPP projects in Ethiopia. The second interviewee is a local investor with extensive expertise in the agriculture sector, he has an export business that sources and exports from its own farm as well as other farmers. The 3rd interviewee from the private sector is a manager of an agricultural products exporting company who has over 30 years of experience on public irrigation management and developments. He has a technical as well as practical expertise on irrigation, water and land management.

The participants in the consultant team are selected because of their previous work on irrigation researches. They have involved in advisory services of their clients and further worked towards securing a PPP project for their clients. The first one is a lawyer and she has worked on other PPP projects outside of irrigation that are relevant to this research in identifying common challenges in the promotion of PPP in the irrigation sector. The other one is a senior consultant of a management consultant who also closely worked on PPP and the modalities applicable for the appropriate project.

The last two interviewees are participants from the public sector. The public authority participants are high-level consultants from MoF PPP Directorate General and the Ministry of Water Irrigation and Energy who are directly involved on irrigation PPP.

Documents used in the Study

The study used several documents as secondary sources to further explain about PPP in the context of Ethiopia. The document sources include the

- FDRE Constitution of Ethiopia (No. 1/1995)
- FDRE Public Private Partnership Proclamation (No. 1076/2018)
- FDRE Public Private Partnership Directive (No. 55/2018)
- The Proclamation on Expropriation of Landholdings for Public Purpose and Payment of Compensation (N0.1161/2019)
- The Proclamation on Expropriation of Landholdings for Public Purpose and Payment of Compensation (N0.11/2005)
- Relevant Rural Land Administration Proclamations

The provision of FDRE Constitution (*No. 1/1995*) relevant to land and water resource utilization and administration, i.e. articles 52,53, 55 and 89 are used as a source of authority for landholding and tenure rights and as a source of power for the regional and federal government institutions.

FDRE Public Private Partnership Proclamation and Directive (No. 55/2018) and (No. 1076/2018) respectively determine the scheme of Public Private Partnership in Ethiopia. The role of different stakeholders, financing structures, and the allocation of resources, have their basis in these laws. *The Proclamation on Expropriation of Landholdings for Public Purpose and Payment of Compensation* (NO.11/2005) is relevant and addresses issues related to clearing lands for the purpose of PPP irrigation.

Discussion and Findings

The findings of the interviews and documents analyzed provide a framework of conditions that contributes to the challenges and opportunities of using PPP for irrigation. All conversations during the interview were mainly conducted in Amharic language. The researcher asked the questions in a language the interviewees feel comfortable to respond and explain themselves with good clarity.

The interview transcripts of all participants were carefully read by the author to perfectly understand the responses of the participants. Following that, based on the meaning of the phrases used, the responses were identified and assigned with codes. The codes were then translated from Amharic to their equivalent English terms using references to the institutional terms used in legal and public documents. Codes that belongs to similar genera were grouped into sub-categories and categories.

Results

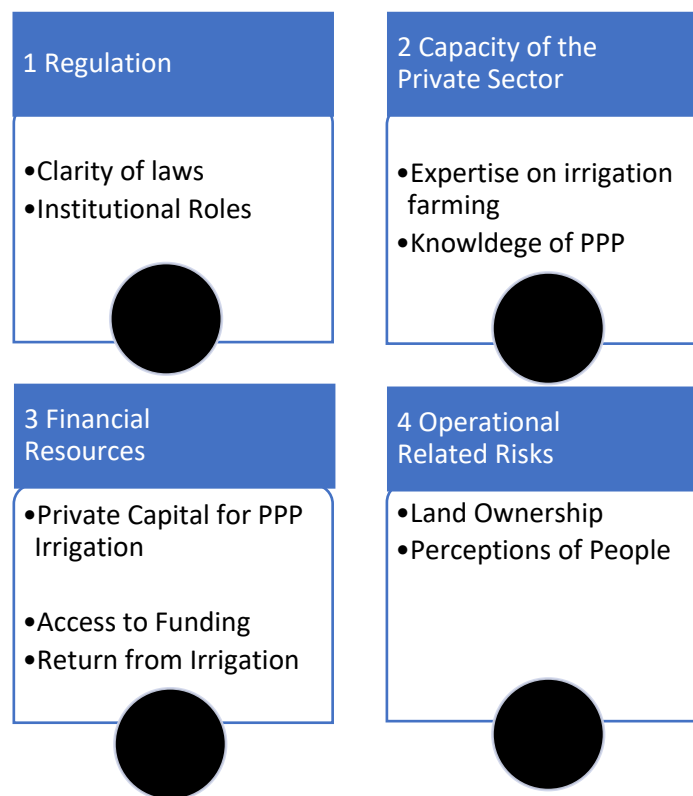
Interview results are organized together with the documents based on the basic aim of the study. The mixture of the response from the interviewees were arranged and analyzed using a qualitative content analysis.

The analysis classified the responses into themes consisting 4 main categories and 9 sub-categories. Accordingly, they are categorized under the categories: regulation, capacity of the private sector, financial resource, operational risks,

compelling factors, clarity of laws, institutional roles, expertise on irrigation farming, knowledge of PPP, private capital for PPP irrigation, access to funding, return from irrigation, land ownership and perceptions of users. Each category and sub-category are provided with example of the responses given by the participants.

The figure below shows the different categories and sub-categories of responses received from participants.

Figure 4.1 Categories and sub-categories of responses



Source: study conducted

Regulation

Participants expressed the need for a robust legal framework and institutional capacity in order to clearly and adequately facilitate PPP projects for irrigation. The category is divided into two sub-categories – clarity of laws and institutional roles. Two of the objectives of the research are targeted towards

finding out the existence of legal and institutional challenges in the provision of irrigation PPP projects. The core sub-categories that effectively respond to these questions are clarity of laws and institutional roles.

Clarity of Laws

The clarity of laws contributes for the a smooth and transparent functioning of the government institutions as well as the confident approach of the private sector. Legal uncertainty and the unfavorable tax regime are the drivers of discomfort to the private sector. Based on the participants views the laws are not consistently clear with regards to ownership of land and assets that are dominant indicators of security in irrigation development. Concerns of interviewees focused on the absence enabling and complementary laws that encourages the confidence of the private investor to be able to invest in irrigation PPP.

A private response indicates that different projects exist in different regions and locations which are also administered by their own regional laws and administrations. This enables the regional states to issue their own laws to implement a balanced solution for the investor and land owners.

The key information shared by all the participants was the need for clear laws on land administration and the need to clear and enabling legislations on ease of access to land and assets for the project. There are time taking and demotivating procedures of expropriation and negotiation, a private investor has to pass through in order to acquire a route for his irrigation project across the farms or lands of communities. The laws should determine an expediated mechanisms whereby the investor can access the land through use right (irrigation water), upon fee or other alternatives. The passive role of the government in providing the required land after a project is awarded to the private sector has been pointed out as major gap in the law that limits the private sector's participation.

Institutional Roles

Poor system of appraisal and sophisticated negotiation procedures are identified as major challenges that affect participation. The irrigation PPP projects are technically complex and require the necessary skills sets in negotiations and description of project. The institutions recognized with the defined set of roles need to have the proper and informed unit that horizontally communicates with the corresponding public institutions. The uncertainty of the legal framework and dynamism of the role of institutions is fundamentally recognized as challenge in Ethiopia for investors, financial institutions, risk insurers that participate in irrigation PPP projects.

Respondents were not certain about the roles of institutions that are mandated to regulate PPP projects. The activities of the Ministry of Finance and the Ministry of Water Irrigation and Electricity are overlapping and sometimes there are gaps in their roles. This led some of the investors to run from one office to another searching for the right office for the services.

The lack of detailed regulations that address the mandates and roles of government institutions make the process unpredictable, costly and unappetizing for the private sector leading them to delays resulting from bureaucracy. The responses received show that the public sector provide that the failure resulting from institutional roles are reflected on the absence of comprehensive laws and vice versa.

The public body participant identified that there is desire to make PPP a success on the part of the state but we can at the same time observe overlapping roles: The public body response shows that there are still confusions to determine who the contracting party should be. The Ministry of Water, Irrigation and Energy is responsible body in terms of irrigation and is also a sector specific institution with the technical and expert knowledge. In the meantime, all the irrigation activities are conducted on extensive land areas that unequivocally fall under the role of state power, on top of that most of the times the irrigation developments are

utilized inside the farms and agricultural lands which are also associated to the roles of the Ministry of Agriculture.

Capacity of the Private Sector

There is a consensus on the capacity of the private sector and its ability to mobilize resources that can cater for the development of irrigation infrastructures identified and proposed by the government. The expertise of the private sector and skills available in the market to develop medium and large-scale irrigations using the resources of the investors is addressed in the findings. The category is divided into two parts; expertise of irrigation farming and knowledge of PPP. The sub-categories include responses from interviewees on knowledge of PPP and expertise of irrigation that address objective questions related technical challenges and opportunities PPP can offer to irrigation.

Expertise of Irrigation Farming

The common response given from the participant show that expertise of irrigation is not a major problem that affects the development and interest of the private sector. The expertise challenge to develop irrigation can be overcome by purchasing of construction and management services from qualified local and international construction and management companies. The responses received from a public institution respondent indicate that there is no guarantee that a single contractor have all the required abilities to develop irrigation projects, but he also believes that the private sector has a much better efficiency and network to find the appropriate expertise compared to the public institution.

The management capacity of the private sector is comparatively effective to undertake the construction of irrigations in an expediated manner. The case of Ribb Irrigation Dam that was under construction by state owned enterprises, Water Works Design and Supervision Enterprise and Water Works Construction Enterprise is a good example to highlight the benefit of handing over projects to the private sector on PPP than to construct under the finance and management of the government. The project was planned to be completed in 4-year time with a

birr 1.3 billion budget. The project however had overdue by six years and was amended 4 times for cost to be completed in 2018 Endeshaw, (2014). It was reported that the reason for the delay was attributed to machinery and human resource shortage.

The same is true for projects of Kesem dam in Afar, Gidabo irrigation dam project, Megech Seraba Irrigation Project. The following table shows the in the cost overrun and time delay on projects under construction, finance and management of the state. The data is collected from a report prepared by Castalia Limited (2008) and news prepared by Fikade (2019), Addis Fortune (2019), 2Merkato (2017a), 2Merkato (2017b) on each project.

Table 4.1 Cost and time overrun of projects under public construction

Project under public construction	Estimated Cost in Birr	Project delay	Total cost in Birr
Ribb Irrigation Dam	1.3 billion	6 years	3.8 billion
Tendaho irrigation dam	500 million	8 years	6.5 billion
Gidabo irrigation dam	258 million	6 years	1.6 billion
MegechSerba irrigation project	213 million	6 years	1.3 billion

Source: Adapted by the researcher from multiple news sources.

Castalia Limited (2008) on its PPP options and action plan study identified future PPP possibilities for the GoE. It recommended six possible option of collaboration on PPP arrangement including for a 20-30 years BOT model contract with limited finance of the private sector. It also included a possible engagement of the private sector in operation and maintenance contract based on a BOT contract. It identified the full risk transfer to the private with regards to O&M. For revenue collection the suggestion of report was for the government to

collect tariff payment from farmers through associations established for water use and through private operators.

The above delays on the project can be overcome by transferring the risks to the private sector by mechanisms of PPP, where the GoE will have limited or no cost and time overruns on irrigation projects. The advantage of PPP is paramount to irrigation projects where the efficiency is highly attained with the public sector do not worry about investments, construction and operation and maintenance and most importantly cost and time overrun which affected the government finance in the past two decades.

Looking at responses given by with regards to response provided by a private investor on the interview establishes that the knowledge on the profitability and return from PPP irrigation are limited and it is difficult for a private wing to conduct an appraisal by themselves and bid to undertake a construction of PPP irrigation dams. A public interview respondent also mentioned majority of projects on irrigation dam constructions were constructed with the dominant role of the government and costed the GoE enormous amount of expenses. The private sector is also not experienced with large scale irrigation projects.

A response from a consultant that attended the interview indicated that he does not expect local investors to participate and show interest in irrigation PPP for major reasons associated to lack of expertise in irrigation sector and also due to large capital required for the investments.

Knowledge of PPP

All respondents commonly agree that there is limited awareness of PPP on all sides. The venture requires the wide participation of the private sector. However, many people do not have awareness of PPP and the modalities. Investors wish to have knowledge and trust on the procedure when dealing on a large investment like irrigation PPP. But the clarity of laws together with the general awareness of the public on PPP is shared by all participants as a major concern that creates the gap in PPP promotion.

One of private respondents underlined that PPP for is a new way of engaging in public investment. The response showed that the knowledge of PPP has not been clearly communicated and for some they are approach the PPP Directorate assuming that projects are made available for joint venture with the government.

Financial Resources

Finance is the core of PPP. No project under PPP can be achieved without the contribution of finance injected from the private sector. The private sector requires securities from the government to grantee the protection of their investment.

Table 4.2 List of PPP Projects identified by the PPP Directorate on the first phase

Approximate Cost	PPP Project
793,000,000.00	Hydropower GenaleDawa 6
429,000,000.00	Hydropower Chamoga - Yeda I & II
984,000,000.00	Hydropower Dabus
1,200,000,000.00	Hydropower HaleleWarabessa
387,000,000.00	Hydropower GenaleDawa 5
3,360,000,000.00	Hydropower Tams
226,000,000.00	Adama-Awash Expressway Section
200,000,000.00	Awash-Mieso Expressway Section
445,000,000.00	Mieso-Dire Dawa Expressway Section
150,000,000.00	Scaling Solar IPP Gad - Phase I
150,000,000.00	Scaling Solar IPP Dicheto - Phase I
120,000,000.00	Mekelle Solar
120,000,000.00	Humera Solar
165,000,000.00	Wolenchetti Solar PV Project
165,000,000.00	Werenso Solar PV Project
150,000,000.00	Metema Solar PV Project
150,000,000.00	Hurso Solar PV Project

(Source: PPP Directorate General document)

The table above indicates the amount of resource a private sector is planned to provide for infrastructure projects using the PPP modalities. The projects are all designed to transfer the to the contacting party using a BOT (DBFOM) structure which transfers all designing, building, operating, maintaining and most importantly financing of the project.

The report of Castalia Limited, (2008) undertaken at time where most of the irrigation projects were given high priority for development, clearly recommended the use of BOT contracts on both for all risk transfer constructions and a service agreement between the private sector and the irrigation agriculture community. Similarly, BOT model is commonly proposed by the state as a major PPP modality for inviting the participation of the private sector.

Private resources for PPP irrigation.

The private sector is really encouraged to take on projects that can bring profit to their investment. Despite that, customarily, infrastructure constructions in Ethiopia are highly dependent on funds coming from the government of Ethiopia. The role of the private sector is guaranteeing the completion and handover of the construction on time. The private sector is unfamiliar with the concept of funding constructions. Similarly, the private sector is assumed to have not been expected to finance the overall project from its own sources.

One of the consultants during the interview said that this type of projects requires funding that can only be backed up by financial institutions. A private sector interviewee who has expertise in irrigation agriculture also shared the bulkiness of irrigation works and firmly pointed that the private sector cannot do it on its own for there are several works associated to the development of irrigation.

The knowledge of constructions as far as the Ethiopia context is concerned, most if not all, projects are conducted by contractors making phase developments upon a period advance payment by the public sector. Another private investor also shared he has no experience where the private sector invests to construct a project

of the state to later return the investment through a user pay arrangement over a long-term return. For all the respondents including the public sector interviewees, it was commonly agreed that capacity of private investors is not proportional to the investment requirements.

The consultant on the interview mentioned that it is not profitable for private sector to allocate large amount of resources to PPP irrigation projects given that they can invest the money on an investment that pays back in a shorter period of time. It should not be forgotten that there are other investments that can offer investors ownership of assets and a business. That may not be the case for PPP irrigation.

Access to funding:

All parties believe that the private sector needs a finance institution or another source of finance to back up the project. By nature, an irrigation investment project does not immediately generate considerable return. It is one of the reasons why the government or other donors funded previous irrigation projects in the country. The private participant that bids to win a PPP irrigation project is always expected to prepare a source of fund for design and construction of PPP projects. A consultant in the interview indicated that the case could be a different when it comes to the management of PPP projects where the requirement is lesser. The resource requirement is relatively lesser.

A public sector respondent pointed out that all bidders that are previously awarded with PPP contracts are either large international corporations with immense capital and experiences on the field or that has significant access to finance.

He further mentioned that all projects are declared transferred to the private sector when the bidder reaches a financial close. At this stage the winner must present proof the required finance for the project. Most of proposals that reached the PPP directorate are attached to a debt financing to be provided by financial institutions. The respondent mentioned his encounters with large financial

institutions conducting their own due diligence to study projects and their viability for an amount of loan requested by the private party. They also conduct extensive researches on environment, social, legal and institutional frameworks on top of the due diligence on the private party.

Despite the long process, it has usually been the preference of the private sector to raise an equity contribution for PPP projects.

Return from Irrigation PPP

It is commonly understandable that PPP projects are major infrastructure projects that are not intended to provide quick gain. Most of the respondents agree that an investor banks on the number of contract years and the concession agreement to return their investment. The characteristics of PPP in its nature requires the provision of significant level of security to the private investors for them to be able to return their investment cost and profit from the construction of the irrigation infrastructures.

The government is inviting the private sector because it cannot provide the infrastructure at its own cost. The return however demands a private sector to take control of the infrastructure for a number of years. All respondents believe that irrigation does not offer a quick win result for the investor which makes it less attractive compared to other investment opportunities.

A response from public sector respondent showed that there are potential risks on irrigation during dry seasons where the dams may not have enough water to provide for irrigation output. Taking such cases into consideration, the private sector requires a guarantee for payment from the government when it is unable to generate income and pay for a loan it received from financial institutions. The example referred in connection to PPP agreement for power generation in the expression of interest received by the private party included a guarantee to be paid for conditions the plant is unable to produce the expected amount due to similar natural causes.

Operation Related Risks

The other most essential area that showed a diminished interest of the private sector is operation. The government regulations on land and property ownership and the psychosocial responses of surrounding communities is a risk area most individuals establish as a threat for their interest to engage in irrigation PPP. It is explained under sub categories Land and property ownership and perception of people to address objective question related to psychosocial and technical challenges.

Land and property ownership:

Land ownership is a major concern for most of the participants. Land tenure is a right provided to the private infrastructure developer, but it involves the risk of being evicted from the land or not having full ownership of the land for the period of the possession. Some of the respondents believe that the land by itself should be a collateral for obtaining loan from financial institutions. They agree that irrigation investments made on the land independent of an appraisal of the value of the land creates a major inconsistency. Without having clear value of the land for the investment made on the construction of irrigation, it is very difficult for the private sector to take part. The risks of not having control or ownership of the land is a factor that decreases the possibility of acquiring loan by the private party.

A private respondent mentioned that it is in fact easier for the project to acquire debt financing if the arrangement would be a joint venture, where in that case banks will not have issues regarding land ownership or loss of investment resulting due to loss of land. Furthermore, the different constitutional powers given to the federal and regional governments on ownership and management of land are additional risk areas mentioned by the private parties as challenges.

Perceptions of people

All investments are not equally accepted by the local community. The development of irrigation projects in rural areas where majority of the people are reliant on agricultural productions bring threats. One of the private participants mentioned the need for the government to partner up with the private investors in order to give confidence to the public.

The control by private corporation on the water sources of communities creates fear and mistrust which ultimately results on resistance and pressure on the private party. Without receiving the necessary support of the local community on the construction of canals and waterways, it will be impossible to channel the water to the intended beneficiaries across the lands possessed by local community. It is referred from private investor who took part in the interview recalling his experience in Afar region which indicated that the local community is highly sensitive about their land. Any sort of expropriation and compensation to lands take a longer period of time which affects the project period planned for the construction of irrigation infrastructures.

Opportunities of PPP for Irrigation

PPP has definitely several opportunities to offer. Despite the challenges underlined above, the sector has also a significant advantage to the economic development of a country. The employment of PPP for irrigation presents the public sector to transfer risks to the private sector and focus on its major activities, to effectively increase infrastructural development and attract more finance targeted towards infrastructure development.

Transfer of risks

As defined in this project work, PPP is essentially a task of transferring risks from the public sector to the private contracting party assigning the design, construction, financing and management task to the private sector. This is principally reflected in the documents acquired from the PPP Directorate. The

Policy (2017) emphasizes in the objective that the PPP is essentially targeted to increase the financial resources available for the development of irrigation infrastructure services in Ethiopia mainly by leveraging private sector investment and management. It is also determined at transferring appropriate risks to the private sector.

PPP is promising for the state in incorporating private sector expertise. The private sector will take away the burden of the GoE by collecting resources that will be invested on selected infrastructure projects. The same is true for operation and management of PPP projects. The state will focus on guaranteeing demand while the private sector will be concentrating on implementing and operating the project. The advantage is very high for the public as the resource primarily dedicated for the project can be reallocated to other non-PPP project areas.

In this sense, the public sector benefits from transferring million-dollar irrigation investments to the private sector for a longer period of time. This entails utilizing the resource and expertise of the private sector to effectively execute projects.

Rapid Infrastructural Development

Infrastructure developments are crucial for the state to satisfy the increasing demands of the public. However, the lack of coordination and bureaucracy in the public sector makes it less efficient to undertake projects within the desired timeframe. The PPP Directorate believes that the more the private sector involves in PPP projects and the more the speed for the completion of essential infrastructures. The above table on cost and time overrun of projects previously constructed by public sector and increases in cost due to design and implementation challenges are commonly minimum under private management.

The objective of the GoE according to the policy documents and the responses of the public sector respondents show that the participation of the private sector in PPP is targeted towards capturing the knowledge of domestic and international private parties in the implementation of PPP projects. This will decrease the number of projects that will delay due implementations by the public sector. The

advantages are clearly visible where the state has no or limited obligation to attract investments, undertake constructions, perform operation and maintenance and most importantly it will not be liable for cost and time overrun.

Access to Financial Resource

Most of the respondents in the study emphasized on the need for resource and the public cannot on its own provide for the financial needs of multiple projects at a time. The private sector on the other hand can acquire funds to invest in selected irrigation projects that are studied to be feasible.

The private sector according to the PPP Directorate and the PPP Proclamation (2018) is required to use its own resources to invest in the PPP project. PPP irrigation infrastructures require the infrastructure investment fund to come from private sector with limited contribution of the public sector.

This will have two opportunities. On the one hand the public sector will not be allocating major financial resources to multiple irrigation projects taking place at the same time and it will allocate its budget to valuable public infrastructures that are less attractive to the private sector.

Management of projects with private expertise

According to all the respondents, the private sector has better expertise and experience in building modern irrigation infrastructures. Existing projects that failed to reach at completion under the management of the public sector require the intervention of the private sector.

The responses show that the private sector is efficient and effective compared to the public sector in terms of hiring domestic and international clients. This is proven by the venture created between Addis Ababa City Administration and the Chamber of Commerce for Addis Ababa Exhibition and Market Development Enterprise. It was a successful management PPP where the revenue has shown a tremendous increase from an annual turnover of 2.3 million to over 20 million (Beyene, 2008).

Respondents also indicated that a fairly compensated project manager under the control of the private sector is likely to succeed in allocating the necessary resources and to operate irrigation projects. The public sector on the other hand is commonly viewed as bureaucratic and resistant to changes. The private sector is flexible to employ international expertise and knowledge to effectively construct projects and maximize the utilization of irrigation resources.

The results commonly show that the opportunity presented to the irrigation sector from allowing the private sector to participate in PPP managements are effective management, profitability and efficient distribution of resources. The public sector can benefit from outsourcing to experienced field expert corporations to fill its management gaps.

Choice of Suitable PPP Modality

One of the advantages of PPP is the freedom to choose possible PPP modalities for irrigation as well as other infrastructural developments. As can be seen clearly from the directions of GoE most of the PPP projects in the pipeline are offered to be transferred using a BOT model PPP. As understood from the Directorate General the GoE undertaking most projects, it is difficult to use BOT model. Meanwhile, the use of Public Private Partnerships allows the government to award projects to private parties depending on the needs of specific projects.

Participants indicated that PPP leverages an opportunity for the private sector to agree on a modality it wishes to operate and search for resources using the agreement reached with the state.

Discussion

The discussion will provide the results obtained from a series of interviews conducted with the goal to analyzing the 4 categories and 9 sub categories identified. The categories are deducted to filter out the responses of participants in the missing link towards the promotion of irrigation PPP to the private sector in the experience of the Ethiopia's PPP Directorate and affiliated authorities. The

discussion will entertain the legal and regulatory schemes in place together with the findings of the interviews in order to present the gaps in the promotion of PPP projects with specific emphasis to irrigation. Some of the categories in the discussion are quiet overlapping and direct at a similar challenge, however, the opinions of participants and the document analysis provide a unique contribution of each to the promotion of PPP projects and are found to be crucial to the study where they are dealt independently.

The study shows that clarity of laws is undoubtedly essential to make sure that there is a common denominator between the private sector and the public body on the conditions the private party will be engaging in the development of PPP. PPP laws and regulations should be consistent, flexible, clear and comprehensive, the efficiency and effectiveness of a PPP project are results of sound laws, Adoko (2017). The tasks of drafting laws to incorporate the four pillars fall in the bucket of public bodies in order to overcome the challenge of the private sector in pursuant loss of interest in engaging on irrigation sector. The chamber of commerce study on potential of PPP, Asubonteng (2011) refers to weakness on the capacity to analyze PPP modalities and options. The document analysis made by this study on the PPP laws as well as the regulation *Public Private Partnership Directive* (No. 55/2018) that describes the regulatory aspects of PPP, fails to explain the modalities and options of PPP available. *Public Private Partnership Proclamation* (No. 1076/2018) is also silent on the modalities except for describing the forms of Public Private Partnerships that may be involved in irrigation PPP.

Despite having no clear modality on the options for engagement and participation of the private sector, the choice for the form of contract is exclusively left for the discretion of the public body. The role of assigning the risks and responsibilities of the private parties entering the agreement thus relies on the contract type selected by the government. The selection of the contract has been implemented in the previously awarded solar projects where for instance the government used a BOOT model concession contract with ACWA, a Saudi Arabian company that was

awarded a contract for the development of the first PPP solar project, Abiye (2019).

Institutional roles and laws

The risk of clarity of laws identified by participants and the absence of the modalities in the governing laws supports the claim that the land and property ownership rights are serious challenges in the promotion of irrigation PPP.

Findings on institutional roles are the considerably aligned with the regulatory activities and the authority placed in them by the relevant laws. The concerns in the findings indicated signal a challenge attributed to complexities of negotiations and poor system of appraisal of irrigation PPP which altogether directs towards inefficiency of the public sector.

However, contrary to the interview responses by private participant as well as the finding of the previous studies, the institutional roles in the instruments identify the roles of each public body. The findings establish that identify that the institutional and regulatory challenges affecting private investors from participating in Public-Private partnerships for irrigation are directly related to the responsibilities and duties of the PPP directorate under the MoF, *Public Private Partnership Proclamation* (No. 1076/2018). The study is able to identify the responsible state organs for irrigation PPP i.e. The Board of PPP under the Ministry of Finance is the organ authorized by law to authorize the respective public body to undertake a public private partnership project.

However, there are missing institutions that have crucial role in PPP irrigation that are left out of the task force. For instance, the PPP Directorate officer during the interview pointed out that the Ministry of Agriculture who has direct contribution to the project on PPP irrigation is missing. Not only did it miss the ministry, but the task force also left out land administration bodies that are essential for the composition and functioning of the team in the promotion and selection of project areas.

Public Private Partnership Proclamation (No. 1076/2018) gives the Board the highest power in determining what body conducts PPP to selecting which irrigation projects must be carried out, to identifying the working procedures of the public organ or its ministry or the PPP unit where the case it delegates it to the later. It also identifies the contracting public organ to irrigation which normally in this case is the Ministry of Water, Irrigation and Electricity (MWIE) or the Ministry of Finance or the PPP unit authorized on delegation. It also has the mandate to approve the selection of the private contacting party.

The National Irrigation Task Force established under the same proclamation incorporates the different authorities that has direct relationships to irrigation PPP: a report by Samuel (2020) regarding the identification of PPP irrigation projects in Ethiopia, shows that the GoE included the Office of the Prime Minister, Ministry of Finance and the Ministry of Water Irrigation and Electricity. All the organs constituting the Task Force are recognized as members of the PPP Board in the *Public Private Partnership Proclamation* (No. 1076/2018). However, apart from the MWIE, the list does not include MoA and any other relevant authority that has a specific role when it comes to the administration of the rural land. The challenges on promotion for PPP irrigation identified by the interview are also visible here. Where the role of the Taskforce is cascading the successful implementation of irrigation PPPs, it fails to recognize the inclusion of an important segment particularly related to land administration.

Knowledge of PPP irrigation

The expertise of the private sector on irrigation is identified as one factor that hinders the potential of the private sector from participating in irrigation PPP. Ethiopia has expertise in irrigation developments but most of the trends in awarding irrigation Projects so far indicate the efficiency and technology available in the outside world is not met with local expertise and technology.

The recent awarded 5 irrigation infrastructure projects can be taken as reference for projects awarded to foreign developers Magoum (2020). The expertise for the

construction and management of irrigation projects in Ethiopia can be outsourced to foreign companies that has the technical know-how on irrigation. The assumption of almost all risk by the private sector in terms of finance as well as technical resources associated to irrigation projects is a major challenge for promoting PPP for local investors and companies.

Knowledge of PPP is commonly shared among all participants. Urio (2010) argues that there is a lack of comprehensive understanding and expertise regarding the intricacies of PPP contracts both on the side of the private and the public sector of most developing countries arising from his analysis pointing that 85% of participants that responded to the influence of knowledge on the development of PPP. In the absence of clear knowledge of PPP and the modalities as well as the nature of the contracts, it will be difficult to call the private sector to involve in PPP irrigation. This aligns directly with the shared opinion of management consultants and lawyers that took part in this study arguing that the interest of the private sector to participation is dominantly occupied by foreign companies who have prior experience and knowledge on PPP. Similar to the private sector, the interview participants of the Public sector also lack significant knowledge and experience on PPP. The response given from PPP directorate general was indisputably confirms the same where he stated that outside of the MoF, the situation is even worse with the other contracting authorities including MWIE. They do not have knowledge of PPP and even those who are aware of the scheme or previously worked with the Directorate on PPP are also limited to basic understanding of PPP. There were attempts of creating PPP literacy workshops to the Public sector institutions that as potential projects, however, it was also very unsatisfactory. Lack of knowledge and asymmetry of information on PPP is a challenge that presents itself as a threat for the unsatisfactory participation of the private sector.

Source of Finance

Financial resources and means of funding available for the private sector are in the findings for factors for irrigation PPP that affect the promotion. The

respondents commonly agree that the private sector except for huge corporations (very small in number), prefer to take loan for the construction of irrigation PPP projects. This applies for investors that plan to engage in irrigation infrastructure projects in Ethiopia. According to Fioravanti et al., (2019) it is normally expected for private parties to raise fund for PPP projects and the private contractor produces its capital by raising debt or equity finance. The *Public Private Partnership Proclamation* (No. 1076/2018) allows for the private party to have the right to mortgage immovable property of the project to financial institutions in order to obtain loans for the project. But, the law becomes limiting when it talks about public property or other assets and rights that may be used for delivery of public services, prohibiting the private sector from using them as a security. The option provided in the proclamation to allow the private party to use the resources developed in the project as a mortgage is a positive factor that encourages the private sector. However, the case of irrigation PPP is difficult to value independent of the land which in the case of Ethiopia is clearly the ownership of the state, *FDRE Constitution of Ethiopia* (No. 1/1995).

Moreover, interviews findings both from the private and the public sides showed that the issue of foreign currency is the reason for most FDI's to lose interest on Ethiopia. The research was able to understand that after the operation of the project the public body can only make payments in Ethiopian Currency and when foreign investors seek to convert the value to foreign currency they face delays and challenges particularly related to convertibility. The contracting public organ is not by law required to guarantee payments to be issued in foreign currency. This has a significant impact on participation of foreign corporations on irrigation PPPs.

Land Administration

The other risk areas for private sectors in irrigation PPP is Land ownership which is significantly relevant to the ownership property and access to funding. *Public Private Partnership Proclamation* (No. 1076/2018) grants the private party that develops irrigation projects to only acquire possessory rights on the land. That

entails the government has ownership on the land and it does not constitute any rights extended for the private sector to use it as a means to obtain loan. Participants of the interview commented on the difficulty of assessing the investment on irrigation without including the value of the land into the project.

Additional to the rights of land and property, the same proclamation refers all expropriation activities to be undertaken by the relevant expropriation law. The repealed *Proclamation on Expropriation of Landholdings for Public Purpose and Payment of Compensation (N0.11/2005)* has a list of procedures that private parties are required to fulfill before obtaining the necessary land for the project; the same is indicated in the new proclamation.

A private interviewee's comment on the need for the state to expropriate the land on its own and provide it for the investment of the private party recounts the statement that it discourages private investors from participating in greenfield irrigation infrastructure projects. *The new proclamation, Proclamation on Expropriation of Landholdings for Public Purpose and Payment of Compensation (N0.1161/2019)* provide rural landholders have the preferential right to use the land in their possession for agricultural development with a choice to either develop it on their own or in groups. But this is only applicable for cases that do not involve the expropriation of landholders for the projects prioritized by the government. This has an aspect of positive promotion in terms of encouraging private parties to obtain assurance on securing the land required for the project.

That being the premise, the state placed procedures for handing over landholdings to PPP private party. The *Proclamation on Expropriation of Landholdings for Public Purpose and Payment of Compensation (N0.1161/2019)* and authorizes the city or woreda administration to undertake the evacuation and takeover the land approved for public purpose. The process in this case, according to the proclamation has to be participatory fair and accountable which by itself takes time when read together with the provisions of the proclamation taking more than a year period or lesser depending on the urgent need for the project.

However, this may not apply to all projects if it will be difficult to determine the urgency of the project and it still has a risk of taking longer than this when the process of completing compensation payments and clearing the land takes longer. The gap in answering the technical challenges that exist in the process of acquiring land is clearly observable given the absence of on measurements to determine urgency and not importance. Moreover, the underlined challenges of the private sector in guaranteeing ownership and landholding rights remain the challenge for irrigation PPP.

Public Acceptance

The last element in the category is perception of people which directly links to psychosocial challenges. Ownership right claims made by people in rural areas on construction of irrigation infrastructure built by private owners, the safety of investments, discomforts arising due to use rights and acceptance by community members are the major concerns raised by participants as a determinant for their participation in irrigation PPP.

The state can address the gap by giving an opportunity for the community, in agreement with the investor to earn benefits through utilization upon affordable fee, shareholding on the project or other mechanisms. The private respondents mainly focused on overall advantage of involving the public which in return gives protection to the project success and additional benefits to all stakeholders.

On the side of PPP irrigation, one of the first request investors make is associated to guarantee of demand. Providing demand guarantee is the role of the public sector. Without the assurance that the selected project is paramount to satisfying the irrigation water demand of the local community, farms or investments, the government will not be able to call on investors to build PPP irrigations to the public and collect fees for the infrastructure.

Assurance requires having conclusive consensus with the people on the need for the project and a demand guarantee confirmation to the private investor implying that the project can return. This government provides demand guarantee to all

irrigation PPPs. However, the issue of guaranteeing payment in foreign currency and access to convertibility of currency remain the challenges of PPP.

The PPP directorate general claims that the challenge is a result of the shortage of currency the country has in general and secondly the mandate to issue foreign currency is given to the NBE. The PPP directorate general respondent stated that previous attempts to cater for automatic conversion of currency filed on rejection by the NBE.

On perception the other challenge respondents presented was related to the confusion of different stakeholders which arises from mistaking PPP for joint venture (JV) between the government and the private sector. The interview made with the consultants and the public party respondents showed that most people are unaware of PPP and mistook it for the financial involvement of the public in the investment of PPP infrastructures.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

This chapter will consist the conclusion and recommendation section of the paper. All the findings of the study are concluded in brief and a recommendation is forwarded based on the findings of the discussion.

Conclusion

The conclusion drawn from the analysis is summarized in this section of the study.

From the finding of the study it can be understood that PPP is a new area of venture in most developing counties and most particularly to countries in the sub-Saharan region. The same is true for Ethiopia, a country that adopted its PPP Policy and laws recently beginning from 2017. The project participation of the private sector in PPP and most importantly in irrigation project also faces several challenges and also bring about opportunities. The main challenges are pointed out below:

Clarity of laws is reported as a challenge especially with regards to rural land tenure. The choices of PPP modalities are not also clearly indicated in the laws which causes ambiguity on investors. The regulatory framework is very strict on land and affects the interest of the private sector to work in irrigation PPP.

It is identified that determining the roles of institutions working on PPP is imperative. Based on the findings of the content analysis the roles of the relevant *institutions* are vague. Public organs including the MoA and land administration bodies are not involved in the taskforce.

Knowledge on irrigation infrastructure was also pointed as the other challenge that limits both the private and the public sector from proceeding in a faster and most effective manner. The public sector does not have sufficient background knowledge of PPP in general.

The knowledge gap applies to local investors who have limited experience in irrigation technology and infrastructure developments. The study analysis shows that there are extensive technical challenges subsequent to lack of expertise on irrigation PPP, regulatory role of institutions, the absence of relevant institutions on the board and the taskforce, and the lack of coordination between the federal and regional governments.

The experience in PPP is also noted as a reason for the limited achievement in relation to PPP. In general, the private sector in local irrigation sector is less exposed to PPP and is not responsive to the call for participation in PPP irrigation. This is observed as a contributing factor for the larger number foreign contractors.

Similar to the effects of the above factors, finance is also a vital variable that determines the participation of the private sector. The finding highlighted that private access to loan is essential to develop irrigation PPP. Foreign investors who showed interest in PPP projects shows that faced challenges in obtaining access to foreign currency and repatriation of income.

Land and property ownership are also cited in connection with factors related to causing expenses and delay on the operation of private investors. Factors such as expropriation should be undertaken by the state to decrease the frustration of the investors.

Public perceptions are also cited as potential challenges for irrigation PPP. There is need for the public sector to address the psychosocial challenges by arranging for mechanisms whereby the community can benefit through affordable fee, shareholding or other mechanisms. Social mitigation mechanisms are found to be effective in addressing psycho-social challenges.

The opportunities emerging as a result of employing PPP in irrigation projects include transferring finance and management risks to the private sector, enhanced infrastructural development and availability of diverse private finance and expertise.

Recommendations

In the current development of infrastructures in the world the private sector is playing a vital role in replacing the government's role in building extensive capital requiring investments. Irrigation is no different from this. The study discovered several gaps that places significant challenge in the promotion of PPP. The researcher proposed the following major recommendation based on the research.

- The government should design and give literacy programs for the public sector in order to enhance the capacity of the Ministry and other contracting public bodies to effectively identify potential PPP projects.
- The government must identify the role of government institutions by law and clearly determine their responsibilities in order to avoid repetitions and factors for delay. The challenges related to institutions can be addressed by providing clear and comprehensive legislations.
- The Taskforce must incorporate the Ministry of Agriculture and other vital government bodies in order to make sure all state parties are part of the project identification.
- The government should revise its financial system to provide for means whereby foreign private investors repatriates profits generated from PPP irrigation projects.
- A mechanism must be put in place to encourage banks to provide finance to local irrigation infrastructure developers. The public sector must take an initiative to enhance the know-how of PPP within the financial sector.
- The federal and regional states laws on landholding and expropriation of landholders for development projects must be coordinated in order to facilitate the process of acquisition of land, payment of expropriation fees, permission for access and safety to the project site.
- The federal and regional governments should negotiate with the local community to support irrigation projects and give necessary access to irrigation development on their lands.
- The GoE must use suitable PPP modalities favorable for the Private Party.

REFERENCES

- 2Merkato (2017a). Ethiopia: Construction of Tendaho Irrigation Dam Completed. [online] www.2merkato.com.
- 2Merkato (2017b). Ethiopia: Megech Seraba Irrigation Project to Go Operational This Year.
- Abiye, Y. (2019). Saudi energy firm awarded first solar project under PPP | The Reporter Ethiopia English.
- Addis Fortune (2019). Nation Completes Megech Seraba Irrigation Project.
- Addis Fortune (2020). Nightmares of Paying Utility Bills.
- Adoko, O., Peter (2017). Risk Management Strategies in Public-Private Partnerships.
- African Development Bank (2019). African Development Bank mobilizes US\$20 million loan to boost water supply in Kigali.
- Agarchand, N. and Laishram, B. (2017). Sustainable infrastructure development challenges through PPP procurement process. *International Journal of Managing Projects in Business*, 10(3), pp.642–662.
- Allen, G. (2003). *The Private Finance Initiative (PFI)*. [online] Google Books. House of Commons Library.
- Asefeso, A. (2015). *Joint Ventures: Stronger Together*. [online] Google Books. AA Global Sourcing Ltd.
- Associates, N. (2017). *Economic and Private Sector Professional Evidence and Applied Knowledge Services Public-Private Partnerships: A Basic Introduction for Non-Specialists*.
- Asubonten, K.A. (2011). *The Potential for Public Private Partnership (PPP) in Ethiopia*.
- Bashiri, M., Shabnam, E., Fazlali, M., Hosseini, S.J., Jama, N. and Salehvand, P. (2011). Analytical comparison between BOT, BOOT, and PPP project delivery systems.
- Beyene, T.T. (2015). Policy, Legal, and Institutional Frameworks for PPP Implementation in Development Process: Stakeholders' Perspective. *China-USA Business Review*, 14(3).
- Carbonara, N. and Pellegrino, R. (2014). PPP for public infrastructure in Italy: opportunity and challenges. *Managerial Finance*, 40(11), pp.1078–1094.

Castalia Limited (2008). Ethiopian Nile Irrigation and Drainage Project: Public-Private Partnership Options and Action Plan Study Final Report to the World Bank.

CDC (2019). Types of Agricultural Water Use. [online] Available at: <https://www.cdc.gov/healthywater/other/agricultural/types.html> [Accessed Oct. 2016].

Cui, Q. and Lindly, J. (2010). Evaluation of Public Private Partnership Proposals UTCA Theme: Management and Safety of Transportation Systems.

Delmon, J. (2011). Public-Private Partnership Projects in Infrastructure: An Essential Guide for Policy Makers. [online] Google Books. Cambridge University Press.

Development Brief: Prospects of Public-private Partnership (PPP) in Ethiopia. (2015). [online] UNDP Ethiopia.

Dewulf, G., Blanken, A. and Bult-Spiering, M. (2012). Strategic Issues in Public-Private Partnerships.

Douglas, K. (2015). PPPs: How the private sector can successfully partner with African governments. How We Made It in Africa.

Endeshaw, D. (2014). Delays in Mega Projects Bleed the Nation. [online] addisfortune.net. Available at: <https://addisfortune.net/articles/delays-in-mega-projects-bleed-the-nation/> [Accessed 4 Jun. 2020].

Fikade, B. (2019). 1.6 bln birr irrigation dam to start operation | The Reporter Ethiopia English. [online] www.thereporterethiopia.com. Available at: <https://www.thereporterethiopia.com/article/16-bln-birr-irrigation-dam-start-operation> [Accessed 4 Jun. 2020].

Fioravanti, R., Lembo, C., Astesiano, G., Lohbauer, R., Barata, R. and Rosset, N. (2019). Fundamental Principles in PPP Laws: A review of Latin America and The Caribbean.

Gray, D.E. (2019). Doing Research in the Business World. [online] Google Books. SAGE Publications.

Grimsey, D. and Lewis, M. (2007). Public Private Partnerships and Public Procurement Agenda,

Hagosa, F., Makombe, G., Namara, R. and Awulachew, S. (2011). Importance of Irrigated Agriculture to the Ethiopian Economy: Capturing the direct net benefits of irrigation. *Ethiopian Journal of Development Research*, 32(1).

- Hareru, W. (2016). Investigating Causes of Construction Delay in Ethiopian Construction Industries. *Journal of Civil, Construction and Environmental Engineering*
- Hennink, M., Hutter, I. and Bailey, A. (2020). *Qualitative Research Methods*. [online] Google Books. SAGE Publications.
- Houdret, A., Bruentrup, M. and Scheumann, W.H. (2017). Unlocking the Irrigation Potential in Sub-Saharan Africa: Are Public-Private Partnerships the Way Forward? *SSRN Electronic Journal*.
- Hurissa, B. (2016). Public Private Partnership (PPP) in the Ethiopian Health Sector: The Case of Addis Ababa City. [online] Available at: <http://etd.aau.edu.et/handle/123456789/7463> [Accessed 4 Jun. 2020].
- IPP Journal (2014). Kenya signs PPP project for Lake Turkana wind project | Energy Finance & Investment. *IPP Journal*. [online] 12 Dec. Available at: <https://www.ippjournal.com/news/kenya-signs-ppp-project-for-lake-turkana-wind-project> [Accessed 31 May 2020].
- Irrigation market brief. (n.d.). [online] Available at: <http://www.fao.org/3/a-i5196e.pdf> [Accessed 14 May 2020].
- Ismail, S. (2013). Critical success factors of public private partnership (PPP) implementation in Malaysia. *Asia-Pacific Journal of Business Administration*, 5(1), pp.6–19.
- Jamali, D. (2004). Success and failure mechanisms of public private partnerships (PPPs) in developing countries. *International Journal of Public Sector Management*, 17(5), pp.414–430.
- Khadra, R. and Sagardoy, J.A. (2019). Irrigation Governance Challenges in the Mediterranean Region: Learning from Experiences and Promoting Sustainable Performance.
- Kothari, C.R. (2004). *Research Methodology: Methods and Techniques*. [online] Google Books. New Age International.
- Lang, A. (2016). Healthcare Infrastructure Public-Private Partnerships in Developing Countries: The Queen ‘Mamohato Hospital in Lesotho.
- Leigland, J. (2018). Public-Private Partnerships in Developing Countries: The Emerging Evidence-based Critique. *The World Bank Research Observer*, 33(1), pp.103–134.
- Li, B., Akintoye, A., Edwards, P.J. and Hardcastle, C. (2005). Perceptions of positive and negative factors influencing the attractiveness of PPP/PFI

procurement for construction projects in the UK. *Engineering, Construction and Architectural Management*, 12(2), pp.125–148.

Linh, N. (2018). Financing a PPP Project: Sources and Financial Instruments—Case Study from China.

Magoum, I. (2020). ETHIOPIA: Water Ways will provide water and irrigation infrastructure. [online] *Afrik 21*. Available at: https://www.afrik21.africa/en/ethiopia-water-ways-will-provide-water-and-irrigation-infrastructure/?fbclid=IwAR2_Dr1pXnbG0GR0r6uZrVudkDxvNlr7HJXrHmlRj3eoWvG6Fg-h8MSEC0U [Accessed 30 May 2020].

Ofori, G. (2012). *Contemporary Issues in Construction in Developing Countries*.

Okwaro, K., Chepkwony, J. and Boit, R. (2019). Factors Affecting Adoption of Public- Private-Partnership in County Government of Uasin Gishu, Kenya. *International Academic Journal of Procurement and Supply Chain Management*.

Pârvu, D. and Voicu-Olteanu, C. (2009). Advantages and Limitations of the Public Private Partnerships and the Possibility of Using Them in Romania. *Transylvanian Review of Administrative Sciences*

PMBOK Guide (2013). *A Guide to the Project Management Body of Knowledge: PMBOK Guide*.

PPIAF (2009). Overview of PPP experience Historical context. [online] Available at: <https://ppiaf.org/sites/ppiaf.org/files/documents/toolkits/highwaystoolkit/6/pdf-version/1-21.pdf>.

PPP Modalities. (2009). [online] Available at: <https://ppiaf.org/sites/ppiaf.org/files/documents/toolkits/highwaystoolkit/6/pdf-version/5-36.pdf> [Accessed 14 May 2020].

Pratap, K.V. and Chakrabarti, R. (2018). *Public-Private Partnerships in Infrastructure: Managing the Challenges*.

Samuel, G. (2020). Ethiopia Unveils Mega Irrigation Projects. *Addis Fortune News*. [online] 15 Jan. Available at: https://addisfortune.news/ethiopia-unveils-mega-irrigation-projects/?utm_source=rss&utm_medium=rss&utm_campaign=ethiopia-unveils-mega-irrigation-projects [Accessed 30 May 2020].

Seleshi Bekele Awulachew, TekluErkossa and RegassaEnsermuNamara (2010). *Irrigation potential in Ethiopia: constraints and opportunities for enhancing the system*.

Shajan, V. (2007). *Special Purpose Vehicle: Concepts and Applications*. [online] Google Books. ICFAI University Press.

Singh, G. and Khan, M.S. (2015). The Role of Public Private Partnership (PPP) in Building Society. *Management Studies and Economic Systems*, 2(2), pp.103–110.

Urio, P. (2010). *Public-private Partnerships: Success and Failure Factors for In-transition Countries*.

Yescombe, E. (2017). (PDF) *Public-Private Partnerships in Sub-Saharan Africa: Case Studies for Policymakers*.

Annex

Annex 1

Interview Questions for Public Participants

Dear Participant,

My name is Seifemichael Mesfin and I am a student of Addis Ababa University, School of Commerce, Department of Project Management.

I want to thank you for agreeing to take the time to respond to the interview questions provided below. Given the current COVID 19 Pandemic, I have optionally presented the interview questions in a written form for your convenience and safety. However, if it will be your preference, I will also be also happy to receive your responses via a phone call or zoom.

The title of my study is “**Promoting Public-Private Partnership Projects – Challenges and Opportunities: *The Case of the Ethiopian Irrigation Sector***”.

Interview Questions for Public Office Participants

1. Is the irrigation project included in a pipeline of nationally authorized strategic infrastructure projects? Which ones?
2. Is there broad and bipartisan political support for irrigation projects?
3. Does the public sector understand what PPPs really are and are their expectations about PPP irrigations reasonable?
4. Has the public agency or ministry ever procured a PPP project before? And what were the challenges in promotion?
5. Why was it decided to pursue a PPP path for irrigation?

6. Is the irrigation project bankable for private parties?
7. Does the institutional capacity exist to administer a PPP project in irrigation sector?
8. Is the irrigation projects' size reasonable for a PPP?
9. Is the procurement process truly transparent and competitive?
10. Is there a clear understanding of the different roles of partners and stakeholders?
11. What do you think are the main reasons that discourages the private sector from participating in irrigation PPPs?

Annex 2

Interview Questions for Private Interview Participants

Dear Participant,

My name is Seifemichael Mesfin and I am a student of Addis Ababa University, School of Commerce, Department of Project Management.

I want to thank you for agreeing to take the time to respond to the interview questions provided below. Given the current COVID 19 Pandemic, I have optionally presented the interview questions in a written form for your convenience and safety. However, if it will be your preference, I will also be also happy to receive your responses via a phone call or zoom.

The title of my study is “Promoting Public-Private Partnership Projects – Challenges and Opportunities: *The Case of the Ethiopian Irrigation Sector*”.

1. Are you currently engaged in any PPP projects?
2. Do you have any functional or technical capacity challenges to implement irrigation PPP projects?
3. What is the policy, legal and regulatory constraints that affect your involvement in irrigation PPP?
4. Do you have any financial constraints to participate in a PPP project?
5. What are the institutional constraints that limits your participation in irrigation through PPP?
6. Do you believe Irrigation projects can offer quick win PPP results?
7. Are there critical governance issues for effective engagement and participation of private sector in PPP?

Annex 3

Interview Questions for Consultants

Dear Participant,

My name is Seifemichael Mesfin and I am a student of Addis Ababa University, School of Commerce, Department of Project Management.

I want to thank you for agreeing to take the time to respond to the interview questions provided below. Given the current COVID 19 Pandemic, I have optionally presented the interview questions in a written form for your convenience and safety. However, if it will be your preference, I will also be also happy to receive your responses via a phone call or zoom.

The title of my study is **“Promoting Public-Private Partnership Projects – Challenges and Opportunities: *The Case of the Ethiopian Irrigation Sector*”**.

1. Do you know investors/ clients who could be interested to or planning to engage in any PPP projects associated with the government of Ethiopia?
2. Do you think the private sector has any functional or technical capacity related challenges to implement PPP projects? And what do you think are those in the case of irrigation?
3. What do you think are the policy, legal and regulatory constraints that affects their involvement in PPP irrigation? i.e., both from the side of PPP as well as irrigation and land related challenges.
4. What do you think are the institutional constraints that limits the private sector from participating in Irrigation through PPP? (referring to answers give for any of the previous questions is allowed)

5. Do you believe the private sector including FDI face financial constraints to participate in a PPP project? Do you believe that will apply to irrigation PPP?
6. Do you believe irrigation projects can offer quick win PPP results?
7. Are there critical governance issues for effective engagement and participation of private sector in irrigation PPP?



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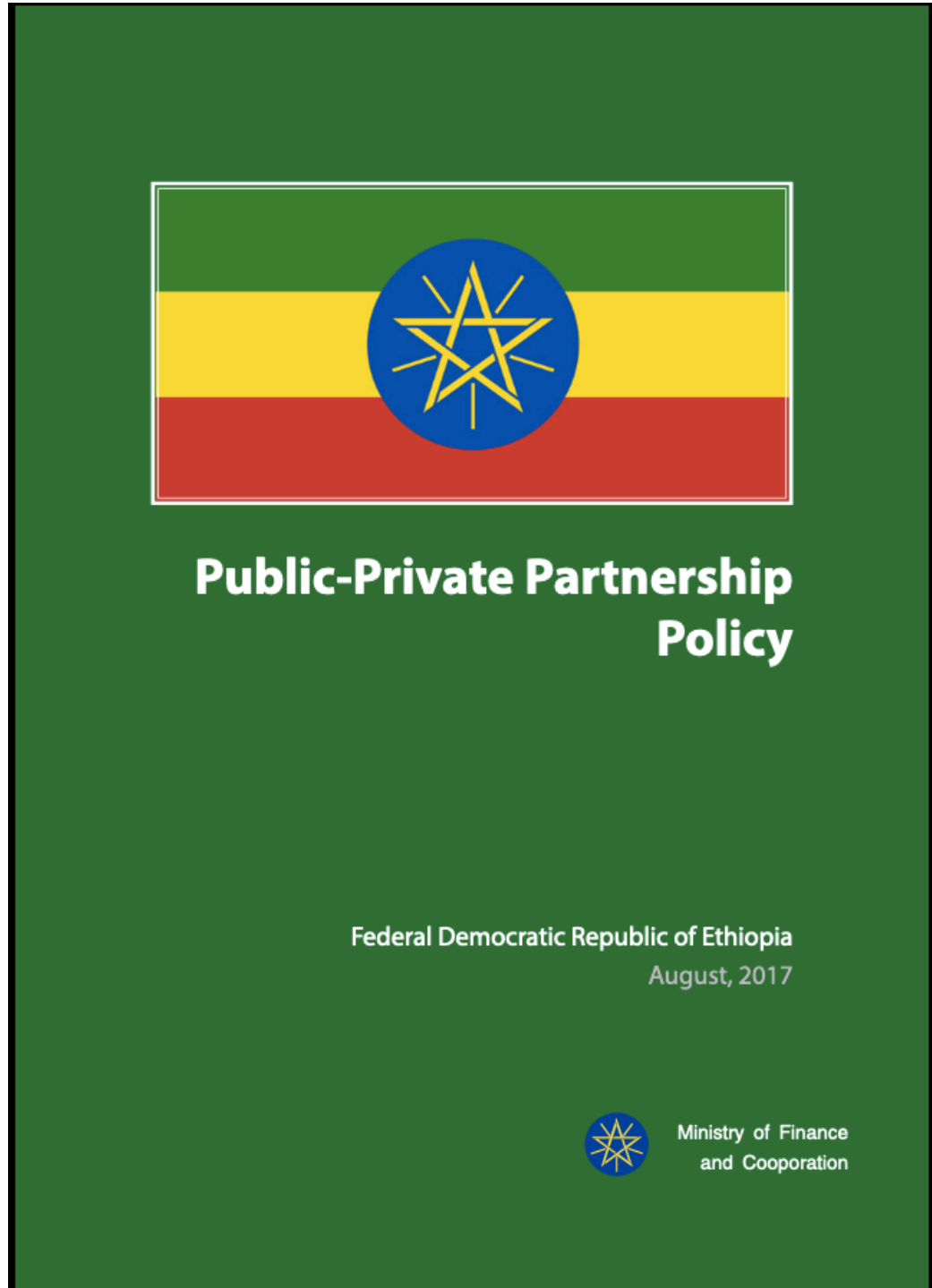
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Annex 5



A DIRECTIVE ISSUED TO IMPLEMENT PUBLIC PRIVATE PARTNERSHIP

CHAPTER ONE

GENERAL

1. This Directive is issued by the Ministry of Finance and Economic Cooperation pursuant to Article 65/2 of the Public Private Partnership Proclamation number 1076/2018.

2. **Short Title**

This directive may be cited as a “directive issued to implement Public Private Partnership directive number 55/2010/2018”.

3. **Definitions: -**

Unless the context changes otherwise, in this directive, words defined under PPP Proclamation shall have the meaning given to them by the proclamation. In addition to this: -

- 1/ “Proclamation” means the Public Private Partnership Proclamation no 1076/2018;
- 2/ “Government Support” means the economic support and guarantees that may be provided in accordance with Article 47 of the Proclamation;
- 3/ “PPP Directorate General Representative” means the representative of the PPP Directorate General designated by the PPP Directorate General to serve on the Project Management Team;
- 4/ “PPP Project Pipeline” means a list of projects that have been identified as potential Public Private Partnership projects;
- 5/ “Project Management Team” means the team established by the Contracting Authority in accordance with Article 14 of PPP proclamation and Article 9 sub article 1 of this directive.
- 6/ “Project Management Checklist” means a checklist designed to assist the Project Management Team and the PPP Directorate General in monitoring the responsibilities of the Contracting Authority and Private Partner under the Project Agreements for a specific project.

4. **Scope of Application**

This Directive shall apply to all Public Private Partnerships to which the Proclamation is applicable.

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ማውጫ	Content
<p>አዋጅ ቁጥር ፻፲፭/፳፻፲ ዓ.ም የመንግሥት እና የግል አጋርነት አዋጅ.....ገጽ ፲፯,፳፻፱</p>	<p>Proclamation No. 1076/2018 Public Private Partnership Proclamation.....Page10235</p>
<p>አዋጅ ቁጥር ፻፲፭/፳፻፲ <u>ስለመንግሥት እና የግል አጋርነት የወጣ አዋጅ</u></p> <p>የመሠረተ ልማት ሥርዓቱን ጨምሮ የአገሪቱን የልማት ግቦች ከማሳካት አንጻር የግሉ ሴክተር ወሳኝ ስትራቴጂያዊ አጋር በመሆኑ፤</p> <p>ግልጽነትን፣ ፍትሐዊነትን እና ዘላቂነትን በማስፈን እና በግሉ ዘርፍ የፋይናንስ አቅም የሚገነቡ የመሠረተ-ልማት ፕሮጀክቶችን ለማበረታታት የሚረዳ እመቺ የሕግ ማዕቀፍ በማስፈለጉ፤</p> <p>ለመሠረተ-ልማት ግንባታ ፕሮጀክቶች የጨረታ አሸናፊዎችን ለመምረጥ የሚያስችል የተለየ ሥነ-ሥርዓት በመዘርጋት መንግሥታዊ አካላት የጨረታ አሸናፊዎችን በመምረጥ ረገድ ሊከተሉት የሚገባውን የግልጽነት፣ ኢኮኖሚያዊነት እና የፍትሐዊነት አጠቃላይ መርህ ማዳበር በማስፈለጉ፤</p> <p>በኢትዮጵያ ፌዴራላዊ ዲሞክራሲያዊ ሪፐብሊክ ህገመንግሥት አንቀጽ ፶፭ (፩) መሠረት የሚከተለው ታውጇል፡-</p>	<p>Proclamation No. 1076/2018 <u>A PROCLAMATION TO PROVIDE FOR THE PUBLIC PRIVATE PARTNERSHIP</u></p> <p>WHEREAS, the participation of the private sector is recognized an essential strategy to realize the country's development objectives, including the infrastructure system</p> <p>WHEREAS, it is desirable to establish a favorable legislative framework to promote and facilitate the implementation of privately financed infrastructure projects by enhancing transparency, fairness and long-term sustainability;</p> <p>WHEREAS, it has become necessary to further develop the general principles of transparency, economy and fairness in the award of contracts by public entities through the establishment of specific procedures for the award of infrastructure projects;</p> <p>NOW, THEREFORE, in accordance with Article 55(1) of the Constitution of the Federal Democratic Republic of Ethiopia, it is hereby proclaimed as follows:</p>

ያንዱ ዋጋ
Unit Price

ነጋሪት ጋዜጣ ፖ.ሣ.ቶ. ፱፻፩
Negarit G. P.O.Box 80001