

# STRATEGIES AIMED AT IMPROVING THE PUBLIC-PRIVATE PARTNERSHIP INITIATIVES IN AGRICULTURE: A CASE STUDY OF NAMIBIA

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## ABSTRACT

*Public -Private Partnerships (PPP) are the long-term contractual relationships between the government and a private partner to provide all or some part of the delivery of agricultural infrastructure and services. Such kind of arrangements have been used to provide the framing structure through which to bring the public and private sectors together to complement each other's strengths in the financing and provision of agricultural services. With this arrangement being a relatively new model in the agricultural sector in Namibia, this study aimed at identifying and exploring different strategies aimed at improving the PPPs initiatives in Agriculture to ensure food security in Namibia. The study used Mashare Irrigation Scheme in the Kavango region as a case study. The study employed a qualitative research approach in order to get an in-depth and detailed understanding of the operations of the PPPs in agriculture. Interviews and focus groups were conducted with the public as well as the private sectors at Mashare Irrigation Scheme.*

*The study found that the government needs to draw long-term lease agreements in order to attract more private partners into this arrangement. The study also found that there is a need to put in place implementation and monitoring policies to ensure a good understanding between the two partners. Based on the findings, this study recommends that the PPP initiatives in agriculture should not only be restricted to crop production, there is a need to diversify it to animal production as well, as there is a lot of potential in this sector.*

**Keywords:** Agriculture, Namibia, Public- Private Partnership, Mashare.

## INTRODUCTION

A Public-Private Partnership (PPP) is a formalised partnership between public institutions and private partners (Muyanda, 2019). PPPs in agriculture are designed to address sustainable agricultural development objectives by ensuring that the public benefits anticipated from the partnership are clearly defined, investment contributions and risks are shared, and active roles exist for all partners at every stage of the PPP lifecycle Ferroni & Castle (2011).

In low-income countries such as Namibia, losses in agriculture production chain occur mostly during the early and middle stages of the food supply chain, as a result of poor harvesting techniques, storage and cooling facilities in difficult climatic conditions, and other infrastructure deficits (Teng, 2009).

## RESEARCH CONTEXT

Namibia is characterised by a dualistic agricultural sector, where a strong commercial sector exists along with a sector comprised of households in freehold or non-freehold areas. This dualistic character of the sector has been inherited from the apartheid regime, where the minority of the population obtained most of the land, and with the assistance of the state, turned it into viable commercial land (Kaupa, 2020).

## THEORETICAL FRAMEWORK AND LITERATURE REVIEW

### Current Status of PPPs in sub-Saharan Africa

Current PPP initiatives in Sub-Sahara Africa (SSA) agriculture spur innovation for agricultural development and have various advantages over other non-collaborative institutional arrangements fostering research and development (Mangeni, 2019). Specifically, PPP initiatives in SSA have yielded several advantages. According to Mangeni (2019), the PPPs initiatives reduce the costs and risks entailed in research; improve the quality and relevance of research results due to synergies among the partners, and ensure greater adoption by user groups; lead to the accumulation of complementary abilities, skills, and resources in farmers; lead to higher competitiveness and better market positioning as a result of improved competencies; and promote development and poverty reduction by providing small-scale farmers with access to knowledge and technologies.

Mangeni (2019) states that several partnerships between NGOs have focused on training integrated pest management (IPM) and responsible use of pesticides and other inputs used in IPM. Other partnerships are focused on bio-fortification of staple crops such as beans, wheat, cassava, maize, pearl millet, rice, and sweet potatoes to alleviate micronutrient deficiencies. The Harvest-Plus Challenge Program, convened by the International Centre for Tropical Agriculture (CIAT) and the International Food Policy Research Institute (IFPRI), works with more than 200 agricultural and nutrition scientists around the world, including private sector developers. Harvest-Plus is partnering with relevant public sector actors to ensure that research outputs benefit farmers. Technology developed through collaborative partnerships is more likely to be accepted by farmers, due to the credibility of international organizations and the idea that technologies aren't being produced within a single sector, argues Mangeni (2019). In PPPs, there are internal control mechanisms to prevent the development of solutions that serve individual interests, these mechanisms in turn, increase credibility with the public.

### Contribution of the Partners to the Project

The public partner is the government in this case that provides the estate by the way of arm's length leases. In Namibia, the public partner, through the Ministry of Agriculture, Water and Land Reform obtains the land through the Land Board in terms of Leasehold or Occupational Land Rights. It develops the land itself or jointly with the private investor and the land is utilized by the farmers under lease or profit-sharing agreements with the Ministry of Agriculture, Water and Land Reform. The government contributes to the partnership by creating an enabling environment through developing the scheme for crop production, agro-processing and infrastructural development. Through its other sectors such as the Agricultural Bank of Namibia (Agribank), the government avails production and capital loan facilities to the project. In order to stimulate production for both grain and horticultural produce, the government has

been playing a leading role in this project by implementing and supporting programs towards the construction of and development of facilities and market infrastructure. The domestic marketing infrastructure has been composed of a chain of collection points and distribution networks within the domestic market so as to increase the share of locally produced products.

### **Adherence and Monitoring of the Agreed Upon Policies**

With regard to the adherence and monitoring of the agreed upon policies, that ensure good understanding and cooperation between the partners, there are strict rules in place where each partner has to present annual and progress reports of what is happening so that in case of serious issues that may derail the attainment of the strategic goals and objectives of the project then corrective measures can be taken. The policies guiding this project range from the Lease-Agreement, Management of the project and profit sharing.

### **Lease-Agreement: Government Owned Property**

In this arrangement, government develops and owns the project where all assets belong to the government, and this applies to existing or new projects. In this case the government as the owner of all assets is responsible for replacements, upgrading and expansion of the project whereas the lessee carries out all maintenance of assets and operational expenses. The parties sign a Lease Agreement regulating the relationship between the parties including but not limited to the operations, maintenance, the duration of the lease, exit or extension, lease amount and due date of the lease. The property is leased to the private investor “as is” with or without any movable assets while the private investor provides or invests in further fixed and movable assets as required to farm the project effectively.

### **Finance and Access to Credit**

Increasing productivity requires some investment, the purchase of inputs, or sometimes the need to forgo income for some time. For instance, proper management of land usually involves investments or decisions to set land aside for a while, which may require farmers to sacrifice some immediate benefits for the sake of increased benefits in the longer run. However, many poor families do not have enough savings to meet the investment, nor can they afford to sacrifice income. As a result, they may not be able to benefit from improved technology, such as those that are developed through public funding. Similarly, they are less likely to specialize in crops and livestock products that could generate a higher return at the cost of investment required and the forgoing of revenue for some time—such as the case with animal rearing and tree crop production. Such financial constraints prevent farmers from achieving static as well as dynamic efficiency gains and income. Lack of credit access by farmers also undermines the effectiveness of other public interventions, such as investment on irrigation, and research on the farm sector.

In Namibia, although there are several financial institutions, there is a lack of financial resources for agricultural production. Only a few of the institutions are interested in financing or providing credit for farming activities (Salami, 2017). Even those that are willing to finance farming usually impose quite restrictive collateral requirements, which is particularly challenging for farmers in communal areas where the majority of them do not have title to land. Banks usually mention high transaction costs, the lack of expertise, and high risks as the main

reasons for not financing agriculture. However, although lending for farming activities is risky, some claim that it is exaggerated, and much of the financial institutions' reluctance must be explained by their incorrect and excessive perception of agricultural risk (Salami, 2017).

### **Termination or Continuation of PPPS**

After evaluating the partnership and examining whether the expected results have been achieved, the partners must choose whether to continue or terminate the partnership (Harwich et al., 2008). The partners may decide to continue if the original interest has broadened and been consolidated, or if the original goals have not yet been attained. Harwich et al. (2008) argue that, at the same time, the partners may decide to conclude the partnership if they believe that the expected results have not been satisfactory, have not been obtained in an efficient way, and/or do not meet the partners' interests, or if they determine that the initial objectives cannot be achieved without incurring additional costs that the partners are not prepared to cover.

### **Limitations of PPP Models in Agriculture**

Most of the farmers in India belong to the small and marginal category where they experience constraints such as lack of capacity to raise their own capital to finance their agriculture-based venture and most of the PPP policies in this sector do not support the welfare of farmers. The problem is further compounded where the proposed facility depends on a single commodity grown by small scale farmers carrying high levels of production risk (Kumar et al., 2017). PPPs in agriculture suffer due to problems linked with supply of raw materials, mode of procurement and rate of fixing and thereby affecting cooperation and coordination between the partners. The performance of private extension is said to vary widely and tends to focus its services on areas with sufficient resources and is limited to a few crops and areas where profits can be assured.

### **Key Lessons Learned for Leveraging PPPs in Agriculture**

Literature has shown that once the private and public sector team up, they can help boost production, enhance growth of SMEs, increase sales revenue and help grow the GDP of the industry which will lead to an increase in total GDP of the country. The crop specific public-private associations' agreement should be signed for a period of 3-5 years with a definite framework and commitments for work and sharing of resources. Public sector after signing Memorandum of Understanding (MoU) should prolong hand holding support. The investment and revenue sharing should be according to the stakeholder's role. PPP needs a common platform to learn the best practices in agriculture at global level, which can be done through hosting annual or monthly information sharing conferences and create social media platforms to interact with the public and monitor how other countries are running their agricultural sectors. Stimulating PPP through various groups, individuals and organizations could result in enhancing productivity and create new cooperation opportunities as well as meaningful interaction (Ponnusamy, 2013).

There is a need to abolish or reduce fees, taxes, and duties on procurement of agricultural or horticultural produce procured through any registered contract-farming program and develop new structures like a pure returns model where both government and private participation have equity investment and work on commercial principles, (Kaupa et al., 2022). The establishment of

more PPPs in Agriculture in Namibia should see a decrease in the importation of agricultural goods due to an increase in production by local farmers and improved quality of crops, fruit, vegetables, poultry, beef, and others. Limited enforcement of contracts biased against small farmers needs to be tackled through formulation of a model memorandum of understanding to ensure compliance of agreements and maintain market competition. This would boost the bargaining power of small-scale farmers and bypass the market intermediaries seeing Namibia winning the fight against hunger and poverty and ensuring food security at the same time.

### **ESTABLISHMENT OF SUSTAINABLE PUBLIC-PRIVATE PARTNERSHIPS**

Establishment of a sustainable PPP is a process that requires time and patience. Development of policies as well as memorandum of understanding in order to bring all the parties to the same understanding and expectations is an important aspect of this arrangement. In the first part of the process, an agent takes the initiative to build awareness of the benefits of collaboration and establishing a partnership among potential partners. The most interested parties can be persuaded to form a steering committee to help promote the partnership-building process (Harwich et al., 2008). The aforementioned authors assert that the members usually get together based on a common goal—for example, developing a certain sector or product or penetrating a certain market as has been the case with the Mashare Irrigation Scheme where they targeted the blue berry product and market. When the members do not already have this understanding, then their first activity should be to identify the common interest. The steering committee can consist of a range of different types of potential partners, but it should include at least one representative of each of the following interest groups:

A facilitating organization that represents public-sector interests. The organization must have credibility among public- and private-sector agents, must be able to bring both sectors together, and must relate to both adequately. This is the role that is played by AgriBusDev at the Mashare Irrigation Scheme. The facilitating organization can act as a linking agent and interpreter among the partners and can promote consensus.

A private-sector entity that is in need of innovation and is ready to contribute to the partnership. The entity should be willing to look beyond its individual interests and have a broad, development-oriented vision. It should also be credible and well known and should be able to bring together and influence other leaders from the private sector as in the case of Koningstein Capital at Mashare Irrigation Scheme (Kaupa et al., 2022).

A knowledge and technology provider, which may be an academic or research institution that is public, private, or mixed, or for-profit or not-for-profit. The organization must be credible and well known in its field of work, must offer valuable services, and must possess sound knowledge of available technological options.

### **Countries that Developed through Agriculture**

According to Aririah (2020) agriculture is the cultivation of crops and rearing of animals, both for economic and domestic purposes. The agricultural sector of an economy is exceptionally the most important sector of the economy as it handles the major aspects that are vital to human existence. The aforementioned author further argues that through agriculture, the three necessities of life—food, clothing and shelter—are made available to man.

Agriculture was the first occupation of man and is still helping in the sustenance of life. This kind of understanding has forced many countries to prioritize the agricultural sector in their development agenda, and Namibia has placed much emphasis on the development of the agricultural sector in its National Development Plan (NDP5) and beyond. Below are some of the countries that understood the value of the agricultural sector, prioritize this sector and have reaped the benefits.

**China:** China has approximately 55% of landmass and contributes to more than 12% of the total GDP of the economy. 50% of its workforce also depends on agriculture. Farm produce like rice, wheat, millet, potatoes, cotton, and others have the largest output in China. Expectantly in the next decade, China will be the top exporter of farm products. One-third of the total fish production in the world is contributed by China. Reflecting on recent studies, Namibia can match China when it comes to Fisheries and Agriculture, but poor administration is blocking the success of Namibia in this sector. This has seen China going far ahead of Namibia in terms of rankings in the fisheries sector.

**India:** India is one of the fastest-growing economies of the world and seventh largest country by landmass. The agricultural sector contributes about 18% of its GDP. Over 58% of the rural households are largely dependent on agriculture. Spices and spice products are largely produced in India, followed by fruit, rice and wheat. There are several segments in the economy which make up the country's agricultural sector. These include: food, grains, dairies, meat and frozen foods.

**The United States:** The US is the world's largest country by landmass and a net exporter of food, which is mainly contributed by the agricultural sector. Due to mechanized farming, the US is the leader in crop production and seed improvement. Tomatoes, corn, peanuts and sunflowers are the major crops produced in the economy. 23% of the exported products in the USA is achieved through agriculture.

**The Republic of Indonesia:** Indonesia is the largest island and most populous country of the world. 14% of the aggregate GDP of the economy is contributed by agriculture. Commercial products like palm oil, coffee, cocoa, rubber, rice, soybeans, corn, cassava, pulses, fruit and vegetables are the major focus of the agricultural sector. Indonesia has the highest per capita rice production of the world.

**Brazil:** is the fifth largest country in the world with half of its landmass covered by forests. The country has agriculture as its principal base. Southern Brazil is very fertile and properly irrigated for farming. It is the largest exporter of sugarcane, coffee, soybeans, corn, vegetables, frozen chicken, beef and ethanol (crop-based) which makes it the breadbasket of the world.

**Liberia:** is one of the countries whose economy took a leap as a result of their investment in the agricultural sector. Approximately 80% of the West African countries' GDP is hugely contributed by Liberia which makes it the highest in the world. 68% of Liberia's employment is contributed by agriculture. Though plagued by years of Civil War which has had a devastating effect on it, Liberia was able to locate a region that is most favorable for agriculture (tree cultivation) and developed it extensively. As a result, rubber and palm oil are the main sources of their cash crops. Over 35 000 of rubber and 42 000 tons of palm oil are produced and exported each year.

**Somalia:** Somalia is another country with a major reliance on agriculture. Agriculture contributes to approximately 60% of the East African country's GDP. Interestingly, only 1.6% of the country's arid land is being cultivated. Unlike Liberia that has majored in tree cultivation,

Somalia found its powerhouse in mostly pastoral farming, though irrigation-based cultivation is practiced in some areas. Bananas and sugarcane are the major commercial crops in the country.

Given the above statistics, there is no country from Europe, yet most, if not all of the European countries are developed and have stable economies compared to the 2 African nations in the top 7. Somalia is ranked among the poorest countries in Africa with a high rate of hunger and poverty related deaths (malnutrition among others). Is it because the public entities are not working together with private companies, or it is because of poor administration around the African continent? Studies will be able to present answers to these sort of questions as well as provide workable solutions to the identified problems and come up with best strategies that can assist to create a workable relationship between the public and private sector through the PPP initiatives.

## RESEARCH METHODOLOGY

The goal of this study was to investigate strategies aimed at improving the effectiveness and efficiency of public-private partnerships in agriculture in Namibia. To achieve this objective, the study used Mashare Irrigation Scheme in the Kavango region as a case study. In order to gain an in-depth understanding of the strategies aimed at improving the efficiency and effectiveness of public-private partnerships in agriculture, an exploratory investigation was conducted using a qualitative approach. A qualitative method was employed for this study with the aim of enhancing the robustness of the study, whereby the respondents were allowed an opportunity of going into the details of what is happening at this scheme hence providing a wealth of research findings and further ensuring incorporation of crucial elements of such an arrangement of public-private partnership.

The adoption of an exploratory research brought to the surface key issues pertinent to the operations of this undertaking and this provided an understanding of the PPPs as a starting point of this study. Creswell (2013) argues that the qualitative method has emerged as the most preferred research approach for assessing key issues such as the perception of individuals about a particular issue or arrangement and allows for more depth in data analysis. The qualitative approach for this study entailed the use of an exploratory design to capture in-depth information about how the public-private partnerships work, more especially in the agricultural sector.

The population of this study consisted of two categories of role players namely: The AgriBusDev, which are the public participant and the farmers from Mashare Irrigation Scheme (Pty) Ltd representing the private participant. Collectively the scheme has a membership of 200 and these formed the population of the study. The sample for this study was drawn from the two participating groups namely: the public and the private partners. Purposive sampling technique was used in the selection of participants. Hofstede (2006) suggests that the researcher must identify the diverse characteristics prior to selecting the sample. In cases where heterogeneous variation sampling is concerned, purposive sampling is applied. According to Carson, Gilmore, Perry and Gronhaug (2005) qualitative data consists of a detailed description of events, situations, and interactions between people. This is meant to provide in-depth and detailed qualitative studies that allow for the collection of data for the study over a period of time. This allowed researchers to experience and get a detailed and comprehensive understanding of the operatives of PPPs in agriculture.

Four Interviews were conducted with the top management from Mashare Irrigation (Pty) Ltd which is a private partner and six focus groups comprising of five members for each group were conducted with the members from AgriBusDev and members of the Mashare community

representing the public partner in this project. The interview guide containing the questions that were discussed during the interview was sent to the participating members one week prior to the actual date of the interview and focus group. This was to enable the members to familiarize themselves with the questions before the interview. Before the interviews were carried out and the focus groups commenced their discussions, the participants were once again briefed of the objectives and aims of this study, all the ethical procedures to be followed were explained to the participants. The protocols to be followed during the interview were also explained to them.

## RESULTS

The findings from this study revealed that the Public–Private Partnership arrangement is an effective way of fighting against hunger and poverty and attaining food security, as well as attaining other socio-economic goals such as job creation and employment as well as skills transfer. With the foregoing in mind, this study recommends a revisit and strengthening of some key strategies in order for such an arrangement to continue bearing these desirable results.

The findings from this study revealed that the key challenge that the Public-Private Partnership is facing is the rigidity of the lease agreement more so when there are other initiatives within the project that require long lease agreements. Hence the study recommends that the government should be flexible enough with the period of the lease agreement. Consideration should be given to the nature of the project and the activities which will be undertaken under each project. This approach will attract more private investors to opt for public-private partnership.

The establishment of a sustainable PPP is a process that requires time and patience. Hence a careful attention must be given to the development of policies as well as memorandum of understanding in order to bring all the parties to the same understanding and expectations. Attractive policies should be put in place that will enable the partners to avail their skills and capacity to the PPP.

The study recommends that when establishing the Public-Private Partnerships, emphasis should be placed on the responsibility of the private partner to transfer skills to the local communities. This will create trust and a good relationship between the local communities and the PPP project as has been revealed in the case of the Mashare Irrigation Scheme. These should include the hiring of foreign experts, mainly from successful countries when it comes to agriculture, such as Brazil, India, and others. This approach will instill confidence and trust amongst private investors to invest in agriculture.

Limited enforcement of contracts biased against small farmers needs to be tackled through formulation of a model memorandum of understanding to ensure compliance of agreements and maintain market competition.

There is also a need to abolish or reduce fees, taxes, and duties on procurement of agricultural or horticultural produce procured through any registered contract-farming program and develop new structures like a pure returns model where both government and private participation have equity investment and work on commercial principles.

## LIMITATIONS

The limitations of this study were that due to political nature of the agriculture sector and the sensitivity that surrounds this industry some members that had vital information regarding the detailed arrangements of PPPs were either afraid or reluctant to participate in the study for



fear of victimization from their employers. To mitigate this, the participants were given an assurance that none of their names would be disclosed and the findings from the study would not have any negative impact on their work.

### SUGGESTION FOR FUTURE STUDIES

There is a need for further studies on this topic, Namibia needs strategies that can be used to run effective agricultural programs and help policy makers to establish productive PPP in different industries. The country needs more studies done on workable public-private partnership strategies that can be implemented in other economic sectors such as power generating and water distribution. Namibia needs more of these kinds of PPPs.

### CONCLUSION

The Public-Private Partnership's usefulness is by no means limited to agricultural development, but they are making a major contribution in this area. Careful strategies need to be designed and put in place in order to create an environment that is conducive and attractive for both the public and private sectors to engage in economic activities. Strategies and policies that foster an environment of trust between the parties involved. When the right partners come together in the right way, the synergies they achieve can lead to results well beyond the reach of any one organization alone. The agricultural sector must be developed and sustained to the point where the Namibian government can full rely on it when it comes to feeding the nation as well as conserving resources. A well-managed agricultural sector can enable many developing countries to boost their economies and improve the living standards of its people. In Namibia, the war against hunger, poverty and unemployment can be won through the development of the agriculture sector and better usage of agricultural resources.

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