CHALLENGES FACED BY PUBLIC-PRIVATE PARTNERSHIP INITIATIVES IN AGRICULTURE IN NAMIBIA: A CASE STUDY OF MASHARE IRRIGATION SCHEME IN THE KAVANGO REGION

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ABSTRACT

The Namibian government has made food security and the fight against hunger a top priority in its agenda and the government has employed different models to achieve this goal. One of the models that have been employed to achieve this goal is the Public-Private Partnerships (PPPs) in agriculture. This paper aimed at investigating challenges faced by this model and initiatives in agriculture in ensuring food security. The study used Mashare irrigation scheme in the Kavango region as a case study.

The study adopted a qualitative research method with an appreciation of exploratory approach so as to enhance the robustness of the study. Data were collected through interviews and focus groups and analysed using thematic technique.

The findings from the study revealed that the key challenge that the PPPs are facing is the rigidity of the lease agreement. The findings from this study also revealed that poor capacity, low motivation of public partners, and delays in the procurement of urgent and strategic items needed at the project such as pesticides, seeds and other chemicals are the other challenges faced in this arrangement.

Based on these key findings the study recommends that the government should be flexible enough with the period of the lease agreement in order to make this arrangement attractive to investors. Skills transfer from the private partners to the public participants should be emphasised so that the participants are motivated and encouraged to take an active role. Bureaucracy should be removed in the procurement chain of the essential materials that are used at these projects as this frustrates the efforts of the private partners.

Keywords: Public- Private Partnership, Namibia, Mashare, Kavango, Food Security.

INTRODUCTION

According to the Poverty Dynamics in Namibia report, which traced poverty trends in Namibia between 1993 and 2010, the incidence of poor and severely poor individuals were estimated in 2012 to be at 28.7 and 15.3 percent, respectively (Koroma, 2016). This is 40.5 and 43.6 percentage points fewer than in 1993/1994, continuing a 17-year downward trend. The poverty gap which measures the consumption shortfall relative to the poverty line was estimated at 8.8 percent in 2009/2010 and indicates that on average Namibia has a poverty gap equal to 8.8 percent of the poverty line. The rural areas recorded a dramatic decline in poverty incidence from

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81.6 percent to 37.4%, a significant decline of about 44 percentage points, while the urban areas showed a decline of about 24.3 percentage points, during the same period (Koroma, 2016). However, poverty varies significantly within the administrative regions of Namibia. These dynamics have got the policy makers thinking as to how best this poverty cycle be brought to a halt in Namibia (Boyce & Neale, 2006). Agriculture has been pointed as one of the key sectors that can play a major role in fighting social ills such as poverty, hunger and unemployment. As a way of boosting the productivity of the agriculture sector, the governments has opted for going into partnerships with the private sector and complement each in some projects. One of these partnerships is the Mashare irrigation scheme in the Kavango region, whereby the government has joined forces with the private to run a project. In as much as this initiative has been a welcomed initiative, there is a need to study the effectiveness and efficiency of such an arrangement and examine the challenges that such an arrangement is facing with the aim of improving its operations. This study was undertaken with the aim of examining these challenges and proposes strategies that can be implemented in order to address them (Quinlan, 2011).

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Namibia's agriculture sector is constrained by a variety of challenges, including limited human and institutional capacity, weak implementation of policy and legal frameworks, poor coordination between government agencies on food and nutrition security issues, poor access to agricultural data by policy makers and farmers, low crop productivity, constraints to sustainable management of water, land, forests and rangelands, inadequate capacity in land use management and land valuation, weak capacity in processing, marketing and quality/safety standards for crop, horticulture and livestock products, vulnerability to different threats and crises (such as droughts, floods, the HIV/AIDS pandemic, transboundary pests and diseases) and issues of gender inequality in agriculture.

Challenges and Issues Facing Agricultural PPPs in Africa

Although agricultural-PPPs show great promise for supporting agricultural transformation in Africa, their implementation faces significant challenges (Muyanda, 2019). Largely unsupportive policy and institutional environments in Africa are the contributing factors to this. Most PPP policies and strategies are designed for infrastructure programs and not for agriculture. These policies fail to account for the specifics of agriculture such as risk mitigation, protection of small farmers and conflict resolution. Other institutional and policy concerns with regards to PPPs in agriculture include:

1 Land tenure issues: African countries are not overpopulated yet its people struggle to acquire land. One needs to have money to get land, with plots being offered for sale at such high prices. Farmers are expected to be paying rent to the governing bodies, making it difficult for small farmers to grow their businesses. However, with the arrival of PPPs, this issue can surely be eliminated.
2 Failure to enforce existing regulations: in most developing countries, policies and regulations are there in the form of papers, but putting those regulations to work is the most challenging thing in Africa and needs to be addressed urgently if we are to experience growth and boost the economies of the affected countries.
3 Public measures which mislead markets: A lack of enforcement of Intellectual Property regulations. Inconsistent local administrative frameworks, creating confusion about roles and responsibilities. The administration is not doing enough to protect the small farmers and the lack of transparency remains a huge obstacle to the success of these farmers.

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4 Most passionate farmers are in rural areas but they cannot grow their businesses due to lack of support from the government, farmers struggle to get their businesses' Intellectual Property rights and associations are only giving support to the already grown and established farmers leaving the small farmers with no chance of growing.

The African Union Commission has discussed the challenges faced by the PPPs in the Agricultural sector and found that, there is limited capacity for the design of good PPP arrangements in Africa. Moreddu (2016) points out that some of the main design issues include:

1 Market failures associated with inadequate market assessments during the initial stages of developing a PPP arrangement.
2 Poorly designed contracts that do not address foreseeable challenges – such as preparation for and mitigation against catastrophic shocks.
3 Lack of solid monitoring and evaluation (M&E) frameworks for measuring progress.
4 Lack of exit strategies for partners; during the past decade. African farmers find it difficult to exit the industry when they feel like there is less progress or when they are not reaching their targets due to poor planning especially during the entry stage.

Operational and Implementation Challenges to PPP Development

The establishment and effective management of a PPP requires good policies to be in place and a good understanding amongst the partners involved. Moreddu (2016) argues that the failure of most PPPs in Africa is attributed to the following factors:

Financial issues: The financial challenges faced by PPPs include slower than expected payback periods, limited funding, delays in transactions, lower than expected return on investment, limited funding for renewing operations, disappointing profit margins and escalating costs resulting from inflation. Accurate estimation of costs can also be difficult, particularly when inflation increases above levels foreseen during the formulation of the partnership agreement.

Social and environmental sustainability issues: Risk of excluding small-scale actors; risk of creating dependency by beneficiaries; land grabbing; environmental concerns – such as mono-cropping, traffic congestion and waste disposal; concerns regarding land access – such as field demonstration sites and land for seed multiplication, (Kaupa et al., 2022).

Challenges and Opportunities

Despite the fact that Namibia's agricultural sector supports nearly 70 percent of the population and accounts for about 20.1 percent of the labor force, the country has not been able to utilise the opportunities that exist within the sector. The agricultural sector in Namibia still faces a number of challenges that hinder its development. The low agricultural value addition and low wages undermine the quality of employment and the development of the sector (Kaupa, (2020). The agriculture value added, at 6.7 percent of GDP in 2015, was the lowest since 1980, having remained in single digits for most of the period (Salami, 2017). With a median wage of N$1,200 (US$90) per month, agricultural workers are the lowest paid (except for those employed by private households) and earn below the national median wage of N$2,200 (US$165) per month.

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Challenges Faced By the Namibian Agricultural Sector

Aridity and vulnerability to climate change: Namibia is inherently a water-scarce country, with rainfall ranging from about 600 mm in the extreme northeast to less than 50 mm in the extreme south and along the coast. About 22 percent of its total land area of about 825,615 sq. km is desert, 70 percent is arid to semi-arid, and the remaining 8 percent is dry sub-humid. Perennial rivers occur only on the country's borders, with floodplain wetlands concentrated in the northeast. Annual average rainfall in Namibia is much lower than that of the Southern Africa region as a whole. About 1 percent of rainfall replenishes the groundwater aquifers, and 2 percent constitutes run-off surface water resources, which suffer high rates of evaporation (Salami, 2017). Annual gross evaporation ranges from 2,600 mm in the northeast to 3,700 mm in the central southern area. Dams can lose between 20 and 65 percent of their water through evaporation within one season. Reflecting immense vulnerability to climate change, the country suffered seven major floods and eight droughts between 1999 and 2016, which reduced economic activities in the agriculture and industrial sectors. As a result of the protracted drought in 2015, the agricultural sector growth contracted by 14%.

Low access to Agricultural Land

Agricultural land is a constraint. compared to South Africa with a nearly 80 percent share, agricultural land in Namibia accounts for about 47.1 percent of the total land area, of which only 34 percent supports economic crop and livestock production. However, due to poor soil conditions, only 1 percent of the total land area is regarded as good for rain-fed or irrigated, arable farming (Salami, 2017). Moreover, land distribution is highly skewed in favor of commercial farmers. Fifty two percent of agricultural land largely under commercial production is owned by 30 percent of predominantly white farming households, with the remaining 48 percent largely communal land, supporting the remainder 70% of the households. Legislative efforts to address inequitable land distribution through the Land Reform Act of 1995 and the New Equitable Economic Empowerment Framework (NEEEF) adopted in 2011 have had limited impact.

Under NEEEF, the government sought to improve land distribution through the following mechanisms: (i) the government would buy agricultural land from commercial farmers on the "willing buyer, willing seller" principle and allocate to previously disadvantaged people; (ii) AgriBank, a state-owned bank, grants agricultural loans at below market interest rates to previously disadvantaged farmers; and (iii) communal land, all of which belongs to the state, is parceled into small units and distributed by traditional leaders. A new legislation to enhance the implementation of the NEEEF is currently under consultation.

Low Technology Uptake and Utilisation

Agriculture in Namibia, particularly among small-scale producers, is characterised by low utilisation of improved technologies, and low levels of inputs and productivity. Irrigation

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farming among small-scale producers, for example, has remained limited due to water scarcity (Salami, 2017). Over the period 1990 to 2004, total area under irrigation grew only by 72 percent to reach 8,600 ha in 2004, driven mostly by the commercial sector or state/parastatal farms. In 2004, irrigated land under small-scale producers, who make up 95 percent of the total farming, represented only 8 percent share of the total irrigation, up from about 7 percent in 1990. Furthermore, fertilizer utilization at 2.16 kg/ha of arable land is significantly lower than South Africa (60.6 kg/ha) and the middle-income country (MIC) average of 178 kg/ha. While fertilizer usage in MIC has been increasing since 2002 in Namibia, it has remained low, averaging below 5 kg/ha. The use of mechanised machinery and services is very low in the agricultural sector of Namibia. Mechanisation is required for land preparation to reduce labor requirements for ploughing.

Low Access to Financing For Agriculture

Access to finance continues to be a problem in Namibia due to possible information asymmetry that has resulted in few applications for credit assistance from banks. Less than 1 percent share of the total farming households in the sector (1,494) applied for credit. These numbers show that access to lending for agriculture for small-scale farmers is almost negligible. There is, therefore, the need to investigate why farmers are not demanding credit from banks, even though the application success rate is high. At the macro level, public finance for agriculture is also very low. For instance, in 2014, government spending on agriculture was estimated at 5 percent of total government spending. Again, in 2014, from the official development assistance (ODA) that was available to Namibia, only 9 percent was agricultural ODA. According to the Namibia census of agriculture report of 2015, which focused on the communal sector, nearly 72 percent of farming households (1,074) that applied for borrowing over a five-year period up to the 2013–14 season received loans.

Low Productivity and Steady Fall in Value of Food Production

Reflecting the low utilisation of agricultural technology, including fertilizers and other inherent factors, Namibia's average cereal yield per ha, is at 588 kg, which is very low compared to South Africa (4,893.5 kg/ ha) and the MIC average (4,135 kg/ha). While usage in South Africa and MICs over the period between 1961 and 2014 has more than tripled and doubled, respectively, this figure grew by less than half in Namibia. This partly explains the steady fall in value of domestic food production. Food and Agriculture Organization (FAO) estimates that the average value of food production (three-year average) estimated in constant US$/person in Namibia has fallen from 260 in 1990–92 to 180 in 2011–14.

Import Dependency and Rising Food Insecurity

Namibia is a net food importer particularly for cereals. While it is broadly self-sufficient in meat supply, 60 percent of cereal needs are imported each year. In 2015, the country imported about 76 percent, 98 percent, and 91 percent of its demand for maize, millet, and wheat, respectively (GRN 2017). Compared to South Africa (6.3 percent), the food imports share (11.4 percent) of total imports in Namibia remains high; it has, however, gradually reduced from 16.8 percent in 2000 (Salami, 2017). Nonetheless, the value of food imports, as a share of total merchandise exports, having reduced over the period 1998 to 2010, has started increasing again, reflecting both gradual growth in food imports due to drought induced scarcity, and weak

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commodity prices for Namibia's exports. This has negative implications for the current account balance and foreign reserves.

Furthermore, rising food imports, combined with declining domestic production, are impacting on supply and availability, exposing households to food price fluctuations. As a result, the domestic food price index has steadily increased, reaching 3.45 in 2013, from 3.37 in 2010. The depth of the food deficit, measured in kcal/capita/day (three-year average) increased from 175 in 2002–04, the lowest since independence, to 325 in 2014–16. Rising food prices and food scarcity is impacting the population's health (Salami, 2017). Prevalence of undernourishment (three-year average) in Namibia reached 42.3 percent in 2014–16, the highest level since independence.

Opportunities in the Agriculture Sector in Namibia

Prioritising agriculture in the national development plans: Building on the gains made in the implementation of the fourth National Development Plan (NDP4), the government continues to focus on agricultural development as one of its key priority focus areas. This has been articulated in the fifth National Development Plan (NDP5) 2017/18– 2021/22 and the Harambee Prosperity Plan (HPP) 2016/17–2020/21. The HPP and NDP5 have identified Small and Medium Enterprises (SME) based manufacturing (industrialisation) as one of the key priorities on which to focus reforms and resources, in order to drive economic diversification and long-term, job-creating growth. One of the initiatives that the government has come up with is the PPPs (Kaupa et al., 2022).

The Growth at Home Strategy of 2015 provides a roadmap for export-oriented industrialisation in line with the Industrial Policy of 2012. It provides for promoting quality jobs through SME value-added, market-oriented activities in agriculture, including cereals, horticultural crops, and livestock, as well as in the country's vast mineral resource sector, including diamonds, gold, and copper. These clearly spelled-out strategies and policy documents present a strong commitment from the government toward agricultural development in Namibia. Specifically, Namibia's 2017 ongoing programs and projects to enhance agricultural transformation include the Green Scheme; the Dry-land Support Program; the Comprehensive Conservation Agriculture Program (CCAP); and the new Harambee Comprehensive, Coordinated and Integrated Agriculture Development Program.

Agribank and financing for agriculture: Namibia has a dedicated financial institution to support the agricultural sector. Agribank is a state-owned enterprise with the mandate to promote the growth and development of agriculture in Namibia through affordable and innovative financing. Out of the 72 percent of households that received credit services, Agribank provided credit support to almost 25 percent of these households. Given the fact that the success rate for credit applications from farmers is high, it is an opportunity for farmers to access finance for agricultural investments.

Cooperation with riparian states: Namibia is highly dependent on its neighboring countries for a secure water supply. To ensure good cooperation with its neighbors, Namibia has developed a regulatory framework, which facilitates the establishment of Basin Management Committees, and is implementing related agreements while reviewing others. It has agreements with Angola (Kunene and Okavango Rivers), Botswana (Kwando–Linyanti–Chobe System in

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the Zambezi River Basin and Okavango River), and South Africa (Orange River). The Treaty of the Vioolsdrift and Noordoewer Joint Irrigation Scheme between Namibia and South Africa was also signed in 1992, establishing a parastatal authority to operate the irrigation project located on both sides of the Orange River at Vioolsdrift and Noordoewer. This presents an opportunity for Namibia to fully exploit the irrigation potential of the country to transform its agriculture. Memberships of the South African Customs Union (SACU) and the Southern African Development Community (SADC) also present an enormous export market for the agricultural produce from Namibia to regional member countries (RMCs).

Population growth, urbanization, and increasing domestic demand: With Namibia's population expected to increase by almost half to 3.44 million by 2041, significant advances in agricultural production and productivity will be required to enable the country to feed itself. Moreover, Namibia is also urbanising rapidly. By 2016, 48 percent of Namibians were living in cities, up from 18 percent within five decades. The potential of agriculture can also be viewed from the available water and land resources. Furthermore, export of primary agricultural production is still very high in Africa compared to other regions of the world. The combination of urbanisation, strong and evolving domestic demand for food, strong international demand (and high prices) and potential for value addition to agricultural produce create unprecedented opportunities for investment and expansion of agriculture within the continent.

Moreover, large investment opportunities still exist for expanding infrastructures such as water, irrigation, rural roads, storage facilities, and sea ports across the agricultural value chain in order to ease the movement of agricultural products from farmers to markets, both locally and regionally. Furthermore, untapped value addition in agriculture, improvements in the business regulatory environment, the expansion of supermarket groups across Africa, such as Pick 'n Pay and Shoprite, all provide unique investment opportunities that bode well for agricultural transformation (Kaupa, 2020).

RESEARCH METHODOLOGY

A qualitative research design with an appreciation of exploratory approach 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 Mashare Irrigation Scheme in the Kavango region. This research design provided a wealth of research findings and further ensured incorporation of crucial elements of such an arrangement of public-private partnership. Exploratory research allowed this study to explore and bring to the surface key issues from the subject which allowed the researchers to have an appreciation of the PPPs in agriculture. 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 study was conducted at Mashare Irrigation scheme in the Kavango region. The population of this study consisted of two categories of role players namely: The AgriBusDev, which is the Public participant and the farmers from Mashare Irrigation Scheme (Pty) Ltd representing the Private participant. Collectively the scheme has a membership of 230 and these formed the population of the study.

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The researcher used structured interview guide and focus groups for collecting data to get responses which were accurate and free of bias and to create personal contact between the researcher and the respondents. The interview guide contained non-structured questions to allow the respondents to express themselves in much more detail which allowed the researchers to address the main research objective of this study in a more detailed and comprehensive way without any bias.

The data that were collected through the interviews and focus groups were analysed through thematic and content data analysis techniques.

The technique proved to be useful for the study, leading to emerging theories in the study. Secondary data was collected from peer reviewed journals, books, manuals and reports from the project itself. This data assisted to shape the direction of the study as it looked at the problems faced by PPP in the region and globally in the agriculture sector.

RESULTS

A comprehensive and in-depth examination of the challenges faced by the Mashare PPP revealed that the long-term permanent crop production and the length of the lease is posing a serious challenge in this arrangement. The establishment of long-term permanent crop production requires a long-term lease agreement between the public sector and the private sector. However, this has not been the case as yet at Mashare Irrigation scheme. This is also delaying the introduction of other initiatives in the project which could have seen it expanding rapidly.

Another challenge being faced by the Mashare Irrigation Scheme is that there are often delays when it comes to the procurement of urgent and strategic items needed at the project such as pesticides, seeds and other chemicals. The government procurement structure is long and tedious, hence in most cases; this causes some serious problems in the operations of the project.

The findings from the study also revealed that another challenge at this establishment relates to chemicals that are allowed and those that are not allowed on the project. There are misunderstandings and disagreements as to what chemical can be used and what cannot be used. The environment has to be protected at all costs for future generations to use and enjoy it. The public partner puts in place very strict measures as to what chemicals can be used on the project and calls for strict adherence to it while the private partner takes a more relaxed approach to this.

Another key challenge faced by the PPPs is the weakness in organisational frameworks. Bureaucracy and inflexible operational procedures considerably delay the formalisation and operationalisation of partnerships, for example, the releasing of funds. This causes frustrations on the part of partners involved more especially the private partner.

The findings from the study also revealed that poor capacity and low motivation of public partners is a major concern on this project. Public partners are not motivated enough to take an active role in the day to day activities of the establishment, there is lack of ownership of the project from their side.

DISCUSSION AND RECOMMENDATIONS

The 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

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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.

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 would 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. The key players in the PPP agricultural projects should consider inviting and hiring experts from countries with successful agricultural projects to come and offer training to the local farmers and communities. This will motivate the public partners and encourage them to play an active role rather than being spectators.

Through this study it came out clear that the establishment of a sustainable PPP is a process that requires time and patience hence emphasis should be placed on the development of policies as well as memorandum of understanding in order to bring all the parties to the same understanding and expectations this will allow for smooth operations.

CONCLUSION

The need for future studies is there if Namibia really needs to eliminate challenges facing the PPPs in Agriculture and fight hunger in the country. Future studies should dig deep and identify workable solutions to solve the challenges on the ground. Future studies could focus on determining strategies that Namibia can use to eradicate hunger by creating meaningful employment in other sectors.

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