

Revitalising the Agricultural Landscape: Unleashing the Potential of Sub-Saharan Africa through the 2003 Maputo Declaration

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Abstract

Africa is considered as an agrarian economy, with agriculture recognised as the most effective approach to reducing rural poverty, building a resilient foundation for socio-economic development and securing a sustainable future. The study analyses the effectiveness of the Maputo policy in promoting agricultural productivity and value-added growth rates. Using a quasi-experimental Difference-in-Differences (DiD) methodology, the research focuses on thirty selected Sub-Saharan African countries for the period 1990-2018. The analysis reveals that the policy's public agricultural expenditure has a significant positive effect on agricultural production, supporting the importance of government spending in driving agricultural development. However, the policy's impact on agricultural value-added growth rates is found to be statistically insignificant, possibly due to challenges in implementation and a need for complementary investments in infrastructure, education, and technology. The study highlights the need for a holistic approach, combining public and private sector efforts, to fully unlock Sub-Saharan Africa's potential, alleviate poverty, and achieve sustainable development.

Keywords: Agriculture development, Maputo Declaration, Public Agricultural Expenditure, Sub-Saharan Africa, Agricultural productivity.

Introduction

Africa holds a reservoir of natural resources and has the potential for sustainable development through its agricultural sector (Thirtle, Lin and Piesse, 2003). The sector contributes significantly to the Gross Domestic Product (GDP) of most African countries, representing 15% of the continent's total GDP or more than \$100 billion annually (Kangethe, 2016) and has been identified as a key driver of economic growth and a strategy for poverty alleviation, as it provides a significant source of livelihood and income for people, particularly the rural poor (Diao et al., 2012). For most of the rural poor, expenditure on food consumes a large portion of their meagre income (Bresciani and Valdés, 2007) implying that the share of food expenditure varies directly with poverty (Ozughalu, 2018). Hence, the economic growth derived from agriculture alleviates poverty by at least two-times the contribution of other sectors to economic growth (Chilonda et al., 2009). However, despite its potential and importance, agricultural productivity in Sub-Saharan Africa (SSA) remains low and plagued with several challenges, such as lack of access to credit, poor infrastructure, climate change, slow economic growth; and many SSA countries have been unable to achieve food security and sustainable agricultural growth (NEPAD, 2010).

In 2000, Africa received 2.8 million tons of the world's total food aid and due to the increasing population and the rise in the number of persons living in hunger, spent USD 18.7 billion on food imports, surpassing agricultural exports and thereby transforming the region into a net agricultural importer (Okon & Christopher, 2018). By 2001, floods, droughts, and conflicts triggered food emergencies for about 28 million Africans, with 25 million requiring urgent food aid. The World Food Programme (WFP) which represents two-fifths of international food aid recorded a spending of US\$12.5 billion in Africa, reflecting rising hunger due to agricultural inefficiencies (NEPAD, 2003). The relationship between food

consumption and poverty is intricate as one's quality of life is dependent on the adequate consumption of food, impacting productivity, income, and employment (Ozughalu, 2018). Thus, the negative effects on output, income and employment levels consequently lead to poverty; and poverty breeds poverty. This vicious cycle of poverty is intertwined with deprivation such as economic, social, cultural, political, personal, and physical deprivation (Ezeanyejí & Ozughalu, 2014). Despite perceived socio-economic progress, poverty and hunger remain potent threats in Sub-Saharan Africa, affecting millions. About 200 million Africans suffer from chronic hunger (FAO & ECA, 2018), with 30 million requiring emergency food annually, and 14 million facing starvation in the Southern African Development Community (SADC) (NEPAD, 2003).

Development in Africa has been greatly bedeviled by weak institutions, rising rural-urban migration, poor research and policy implementation, and inadequate public investment expenditures (Fan, 2008; Fan and Zhang, 2008). During the global recession of 2008-2010, SSA countries experienced a disruption in economic growth which led to the problems of food crises, deteriorated health conditions, increased poverty levels, and malnutrition (World Bank, 2010). This continued disruption in Africa's economic growth is further weakened by the increasing population growth rates experienced in the continent which has negatively affected the quality of life and overall social-economic development. In 2011, Africa exceeded the 1 billion population benchmark and over the next 50 years, Africa will lead population growth (African Development Bank, 2014). With an increasing population, Africa must improve its agricultural productivity and ensure food self-sufficiency to eradicate poverty and hunger, drive economic growth and achieve overall sustainable development, which are all targets of both the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) (NEPAD, 2003). Effective strategies for agricultural development necessitates an integrated form of market-led growth, commercialization, and pro-poor agricultural development policies to reduce poverty level, climate change risks, food and energy price levels, market failures, and ensure food security (NEPAD, 2010). Through agricultural development, we can win the war against hunger and poverty (Akinwale et al., 2018).

In the East African Community (EAC) comprising Kenya, Tanzania, Uganda, Burundi, Rwanda and South Sudan countries, the Food and Agricultural Organisation of the United Nations (FAO) estimates that 12.5 per cent of the over 160 million people in East Africa are food insecure. Thus, to promote overall agricultural development, trade, infrastructure, natural resources management and to aid the expansion of food production and food sufficiency in the region, the EAC Agriculture and Rural Development Policy (ARDP) and the EAC Agriculture and Rural Development Strategy (ARDS) were adopted in 2006 as strategic agricultural intervention policies (Tondel, 2017). In the Southern African region, the 16 SADC Member states established the SADC Regional Indicative Strategic Development Plan (RISDP) in 2003 to encourage co-operation in achieving food security and the sustainable development of the agricultural sector; in May 2004, the SADC Heads of State signed the SADC Dar-es-Salaam Declaration on Agriculture and Food Security to address the region's food crisis, through the development of sound policies to improve agricultural production, storage, processing, utilisation and trade (SADC, 2011). In the Western African region, the Economic Community of West African States (ECOWAS) established the ECOWAS Agricultural Policy (ECOWAP) in January 2005 to promote a modern and sustainable agriculture, guarantee food security, secure decent incomes for agricultural workers and reduce poverty in the member states (ECOWAS, 2008). In 2001, the Organisation of African Union (OAU) represented by the African Heads of State and Government established the New Partnership for Africa's Development (NEPAD), to pursue a long-term development agenda in Africa's agricultural sector; and with the vision of promoting an African-led progressive growth, eradicating poverty and ensuring food security in the African continent (NEPAD, 2003).

Recognizing the need to revitalize the agricultural landscape in SSA, the African Union (AU) endorsed the Maputo Declaration in June 2003, aimed at promoting agricultural development and eradicating poverty in SSA. Under the Maputo Declaration, African governments committed to allocating at least 10% of their annual budgets to agriculture and rural development and achieving a 6% growth in agricultural domestic

product, with a focus on reducing poverty and promoting food security by 2025 (Abdoulaye et al., 2019; NEPAD, 2010; AU-NEPAD, 2003). Achieving the Maputo Declaration in Africa is dependent on the amount and composition of total public expenditures which affect economic growth. Despite the mono-economy and low government revenue in most African countries, total expenditure growth has been larger than GDP growth rate over the years. Hence, the contribution of government in socio-economic activities can be ascertained through the ratio of total government expenditure to total GDP; with higher ratios indicating a greater provision of public goods and services and vice-versa. Prior to the adoption of the Maputo Declaration, the average annual ratio of total government expenditure to GDP growth rate in SSA countries was 22.4% to 2.7% during the 1990-2003 period. In contrast, between 2004-2012, this ratio rose to an average annual ratio of 26.2% to 5.5% (WDI, 2018; SPEED 2015). The increase in total public expenditure and GDP growth rate justify the participation of African governments in the growth of their economies; although, the relatively low GDP growth rate in Africa confirms the existence of a low revenue base which explains the difficulty experienced in undertaking the required but expensive growth-enhancing public investment expenditures (e.g. infrastructure, R&D) for accelerating growth. More importantly, the existing scarce resources need to be strategically applied in achieving substantial growth and sustainable development in African economies (Benin & Yu, 2013).

The 2003 Maputo Declaration revealed the critical role of government in driving agricultural transformation in Africa through the Comprehensive Africa Agriculture Development Programme (CAADP). In 2014, the Maputo Declaration was renewed as the “Malabo Declaration” in Malabo, Equatorial Guinea and with a sustained emphasis on doubling agricultural productivity, ending hunger in Africa, halving poverty, triggering an inclusive eco-system growth, promoting climate change resilience, reducing post-harvest losses, creating new jobs and agricultural transformation on a continental scale by 2025 (AGRA, 2018; Tondel, 2017). This study focuses on evaluating the effectiveness of the 2003 Maputo Declaration in achieving its objectives in promoting agricultural development in SSA. The study employs a difference-in-difference (DID) estimation technique to analyze the impact of public agricultural expenditure on agricultural productivity and growth rates in selected SSA countries. The findings would determine if African countries should continue with the investment of the agreed 10 per cent budget increase in agricultural investments to transform the agricultural sector, improve agricultural productivity and hence, ensure the overall development of the continent.

Methods, Techniques, Studied Material and Area Descriptions

The study focuses on Sub-Saharan Africa, which is a region known for its significant agricultural potential. The primary studied material is the implementation of the 2003 Maputo Declaration on agricultural production and growth rates in selected SSA countries. The study evaluates the effect of the Maputo Declaration on thirty (30) selected SSA countries, with an unbalanced panel data for the 1990–2018 period to determine the policy's effectiveness in revitalizing the agricultural sector in the region and promoting growth and development in the region. The Sub-Saharan African countries selected based on data availability were Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Central African Republic, Congo, Democratic Republic of Congo, Ghana, Guinea, Ethiopia, Ivory Coast, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sierra Leone, South Africa, Swaziland, Togo, Uganda, Zambia and Zimbabwe.

In compliance with the Maputo Declaration's 10 per cent agricultural expenditure target, Africa's Public Agricultural Expenditure (PAE) witnessed an increase between 2003 and 2010, rising from an average of about \$0.39 billion to \$0.66 billion. However, this increment in PAE was lesser than the overall growth in total expenditure (Benin and Yu, 2013), thereby presenting challenges to continent's comprehensive compliance with the Maputo target and the realisation of sustainable agricultural development objectives. A decade after the policy endorsement, merely thirteen African countries had either achieved or exceeded the 10 per cent agricultural expenditure budget target, with a consistent surpassing of the target observed in only seven countries across most years (IFPRI, 2013). Figure 1 shows the progress among African regions in implementing the Maputo 10 per cent agricultural expenditure target between 2003-2010, depicting

Western African sub-region countries as the foremost implementers. In Fig. 2, the 2010-2017 period reveals that only fourteen countries intermittently met the 10 per cent agricultural expenditure benchmark, with only six countries constantly surpassing the target.

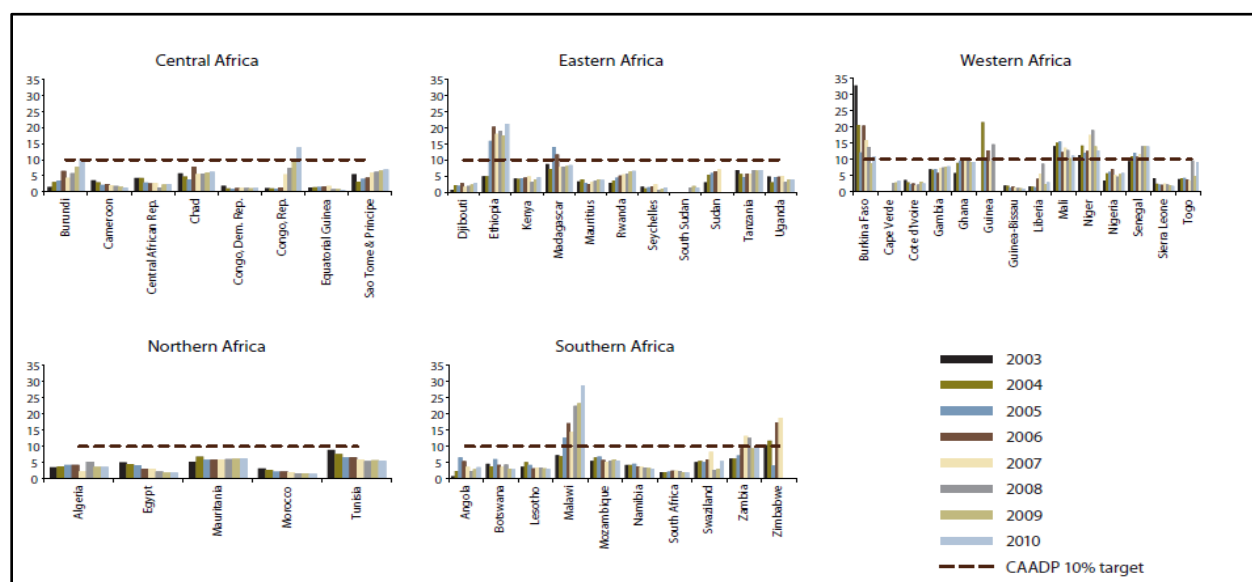


Figure 1: Share of PAE in total expenditures in African countries (%), 2003-2010 Annual Average
Source: Benin and Yu (2013), pp 21.



Figure 2: Share of PAE in total expenditures in African countries (%), 2010-2017 Annual Average
Source: Author's compilation based on data from ReSAKSS (2018)

The study employs a quasi-experimental Difference-in-Differences (DID) technique, which involves comparing the change in outcomes over time between a treatment group (policy-implementing countries in this case) and a control group (non-implementing countries). This method controls for unobserved heterogeneity due to differences in time-invariant factors between the two groups, allowing for a more accurate estimate of the policy's effect (Zhou et al., 2016). According to Albouy (2004), the Difference-in-Differences (DiD) or double estimator is “the difference in average outcome in the treatment group before and after treatment *minus* the difference in the average outcome in the control group before and after treatment.” The DiD can be represented by:

$$\delta_{DD} = \bar{Y}_1^T - \bar{Y}_0^T - (\bar{Y}_1^C - \bar{Y}_0^C) \quad (i)$$

where, \bar{Y}_0^T = pre-treatment group, \bar{Y}_1^T = post-treatment group, \bar{Y}_0^C = pre-policy control group, \bar{Y}_1^C = post-policy control group, and δ_{DD} = true treatment effect. \bar{Y} , represents the sample means for the group's outcome, subscripts represent the time period, and superscripts represents the treatment status. Hence, the DiD estimation outcome is modelled by the equation:

$$Y_{it} = \alpha + \beta T_i + \gamma t_i + \delta(T_i \cdot t_i) + \chi'_{it}\phi + \varepsilon_{it} \quad (ii)$$

where, α , β , γ , δ , ϕ are unknown parameters and ε_{it} is a random unobserved error term and comprises of the determinants of Y_i not present in the model; Y_{it} = Agricultural production per country, Agricultural value-added growth rate (outcome variables); α = the constant; β = treatment group specific effect (this takes account of the average permanent differences between the treatment and control groups in the absence of the treatment policy); γ = time trend common to the control and treatment groups; T and t are dummy variables represented by $T = 0$ (control group), $T = 1$ (treatment group); $t = 0$ (pre-policy), $t = 1$ (post-policy); δ = true treatment effect; and χ_{it} represents additional covariates which include Gross fixed capital formation (GFC), Employment in agriculture (EAG), Agricultural exports (AEx), Research and Development (RD), and Real interest rate (RInr). The policy treatment variable is proxy by public agricultural expenditure (PAE), as a % of total expenditure. The Maputo policy intervention between the policy implementers and the policy non-implementers, is evaluated by the value of the true treatment effect (δ).

The treatment group comprises thirteen SSA countries (Cabo Verde, Benin, Burkina Faso, Ethiopia, Guinea, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Zambia, and Zimbabwe) that implemented the 10% PAE policy target in at least any one year after endorsement. The control group consists of seventeen SSA countries (Central African Republic, Congo, Botswana, Burundi, Democratic Republic of Congo, Ghana, Ivory Coast, Kenya, Lesotho, Mauritius, Namibia, Nigeria, Sierra Leone, South Africa, Swaziland, Togo, and Uganda) that have not implemented the policy since its endorsement. The data for the study were sourced from the Agricultural Science and Technology Indicators (ASTI), the Food and Agricultural Organisation Corporate Statistical Database (FAOSTAT), the Regional Strategic Analysis and Knowledge Support System (ReSAKSS), and the 2018 & 2020 World Development Indicators (WDI). The data estimation analysis was performed using the Stata 15 econometric software.

Results

Parallel Trend Assumption

The parallel trend assumption posits that “conditional on the covariates, the average outcomes for treated and controls would have followed parallel paths in the absence of treatment (Albadie, 2005). Should the parallel trend assumption be violated, the causal inference derived from the estimation would be biased.

The assumption is expressed as:

$$E[Y^T(1) - Y^T(0) | X, T = 1] = E[Y^C(1) - Y^C(0) | X, T = 0] \quad (iii)$$

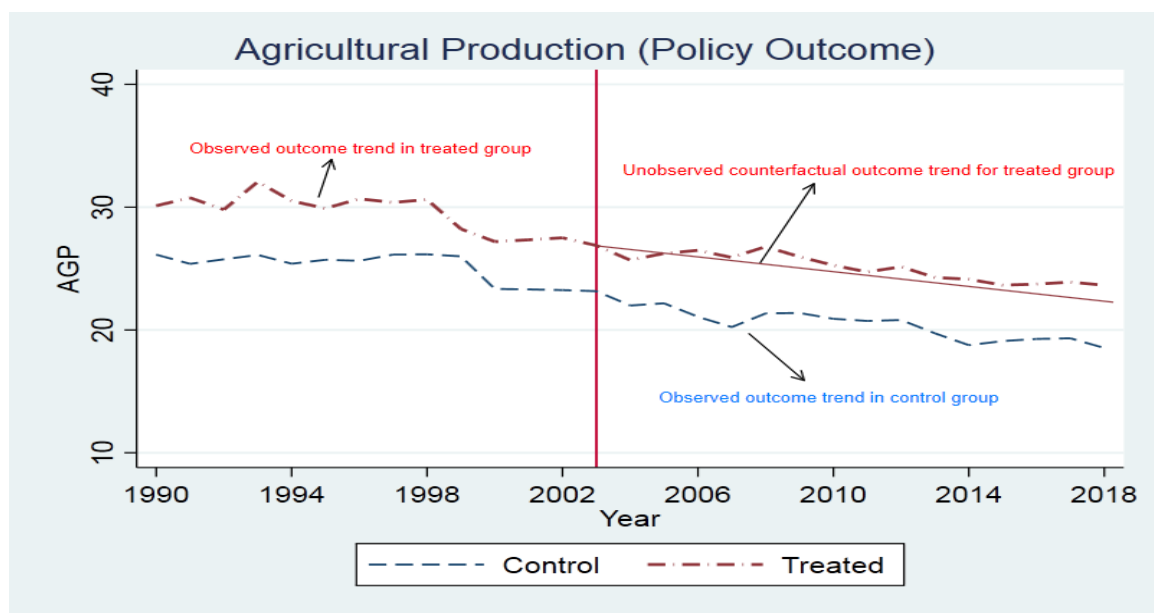


Figure 3: Parallel Trend Graph
Source: Author's analysis using Stata 15

The graphical analysis in Fig. 3 affirms that both pre and post treatment periods witness a parallel trajectory of agricultural production for the treatment and control groups. The unobserved counterfactual outcome trend for the treated group during the post-intervention period represents the outcome trend for the treated group in the absence of treatment. This trend is assumed to be parallel to the observed outcome trend in the control group's post-intervention period. While the pre-treatment trends of the treatment and control groups may not be perfectly parallel, possibly due to the inherent between-group differences influencing outcomes, employing observable exogenous covariates in evaluating the impact of the policy can mitigate potential bias arising from these distinctions (Fredriksson and Magalhães de Oliveira, 2019). Moreover, given uncorrelated covariates with the treatment variable, the treatment effect estimation remains unaffected and the residual variance is reduced. Consequently, the standard error of the regression estimates is also reduced (Wooldridge, 2012; Angrist and Pischke, 2008).

Impact of the Maputo 10% Public Agricultural Expenditure (PAE) on Agricultural Production

Table 1: Effect of PAE on Agricultural production

Variables	Coefficients	Standard Errors / p-values	
		DiD	Driscoll-Kraay (D-K)
constant	10.8509	1.7715 (0.000)*	1.6369 (0.000)*
time (t)	-0.6589	1.1536 (0.5638)***	0.3415 (0.064)
treated (T)	4.6006	1.7039 (0.007)*	0.7390 (0.000)*
DiD (T.t)	2.1169	1.8904 (0.263)***	0.7881 (0.012)**
GFC	0.00049	0.0006 (0.427)***	0.0004 (0.230)***
EAG	0.2739	0.0228 (0.000)*	0.0130 (0.000)*
AEx	0.1222	0.0177 (0.000)*	0.0284 (0.000)*
RD	-3.9522	0.4633 (0.000)*	0.4278 (0.000)*
RInr	-0.0136	0.0060 (0.025)**	0.0046 (0.006)*
R-squared	0.6241	0.6241	0.6241

Source: Author's analysis using Stata 15

p-value (); * = $p < 0.01$; ** = $p < 0.05$; *** = $p > 0.1$

Table 1 reveals that the DiD true treatment ($\hat{\delta} = 2.1169$) is statistically significant at 5% significance level, using D-K standard errors. On the assumption that changes in agricultural production for both groups stems exclusively from the 10% policy intervention, the findings confirm a 2% average increase in agricultural production in the policy-implementing SSA countries due to a proportional rise in public agricultural expenditure (the treatment variable) during 1990-2018. This outcome underscores the positive and substantial influence of public agricultural expenditure on agricultural production across SSA countries, aligning with Sechoutdi and Chabossou (2020). To address issues of heteroscedasticity, autocorrelation, and cross-sectional dependence inherent in panel data, (D-K) robust standard errors are applied, which compute spatial correlation consistent standard errors for linear panel models (Hoechle, 2007). The estimated R-squared value indicates that approximately about 62% of the variability in agricultural production can be accounted for by the covariates.

Impact of the Maputo 10% PAE on Agricultural Value-added Growth Rate

Table 2: Effect of PAE on Agricultural Value-added Growth Rate

Variables	Coefficients	Standard Errors / p-values	
		DiD	Driscoll-Kraay (D-K)
constant	3.6486	1.7518 (0.038)**	1.4108 (0.015)**
time (t)	-0.0472	1.1652 (0.968)***	0.6925 (0.946)***
treated (T)	1.9324	1.6911 (0.254)***	2.4277 (0.433)***
DiD (T.t)	-1.2652	1.8640 (0.498)***	2.1647 (0.564)***
GFC	0.0008	0.0006 (0.203)***	0.0004 (0.039)**
EAG	0.0102	0.0221 (0.644)***	0.0232 (0.662)***
AEx	-0.0248	0.0172 (0.152)***	0.0166 (0.147)***
RD	-0.5795	0.4513 (0.200)***	0.4386 (0.198)***
RInr	-0.0326	0.0059 (0.000)*	0.0044 (0.000)*
R-squared	0.0789	0.0789	0.0789

Source: Author's analysis using Stata 15

p-value (); * = $p < 0.01$; ** = $p < 0.05$; *** = $p > 0.1$

Table 2 indicates the DiD true treatment's ($\hat{\delta} = -1.2652$) statistical insignificance at both the 5% and 10% levels. On average, a percentage increase in public agricultural expenditure corresponds to a 1.3% decrease in agricultural value-added growth rate. This signifies a negative growth rate in agricultural value-added for the policy implementing countries. This outcome underscores the necessity of country-specific investment strategies, encompassing education, human capital development, agricultural research, infrastructure and manufacturing. The development of these sectors enhances agricultural productivity and growth through value-addition to primary agricultural products, ultimately fostering poverty reduction (Fan et al., 2009). Zepeda (2001) underscores the superiority of human capital development over unskilled labour in fostering productivity in developing nations. The development of human capital directly impacts productivity by influencing farmers' input usage and combination, thereby affecting the purchase, adaptation and application of information and technology. Mehdi (2011) notes that due to existing food insecurity, global financial crisis, and climate change imbalances, agricultural labour skills and demands are expected to grow. Thus, harnessing agricultural skilled labour becomes pivotal for improving agricultural output and value addition.

Discussion

The results of this study provide some important insights into the development potential of SSA through the transformation of the agricultural sector. The analysis shows that public agricultural expenditure has a significant positive effect on agricultural productivity, validating the importance of adhering to the Maputo Declaration by African governments. This finding suggests that government spending on agriculture is an important factor in driving agricultural development and growth in the region. Several studies have examined the impact of public agricultural expenditure on agricultural productivity and growth rates in

Sub-Saharan Africa. The evidence suggests that public investments in agriculture have a positive effect on agricultural productivity and incomes, particularly for smallholder farmers (Uremadu et al., 2018; Benin et al., 2009). A study by Wiggins et al. (2010) finds that public expenditure on agriculture in the developing world has a significant and positive impact on agricultural productivity. Di Falco and Kelly (2012), concluded that an increase in public agricultural expenditure increases yields and farm productivity. Similarly, Jayne et al. (2010) evaluated the impact of public investments in the agricultural sector on GDP growth rates in SSA countries and found a positive relationship between public investment and GDP growth rates. The study suggests that the positive effect of the Maputo policy on agricultural production is due to the increase in public agricultural expenditure and the government's commitment to agricultural development, which is consistent with the objectives of the Green Revolution. For instance, investment in rural infrastructure, research and development, education, extension services, and rural financial services can enhance agricultural production and productivity. Similarly, other factors such as access to markets, technology, and other inputs play an essential role in shaping agricultural productivity. However, while the study finds a positive impact of the Maputo policy on agricultural production, emphasis should be made on other complementary investments in rural development, education, technological innovation, and market-oriented agricultural development.

The findings of the study also suggest that the 10% Maputo policy target has a negative and statistically insignificant effect on agricultural value-added growth rates in policy-implementing countries. The findings are consistent with a few prior empirical studies that have emphasized the limited effect of public agricultural investments on agricultural value-addition and productivity. For instance, a study by Benin et al. (2012) assessed the impact of public expenditure on agriculture in Ethiopia and Uganda and highlighted that public expenditure on agriculture has been largely ineffective and more resources should be channeled to the agricultural sector to promote productivity and growth. Similarly, Kassie et al. (2012) report that agricultural investments in Africa face significant challenges in improving agricultural productivity and value-addition, including poor infrastructure, weak institutions, and market inefficiencies. The insignificant effect of the Maputo policy on agricultural value-added growth rates in policy-implementing countries may be attributed to the weak implementation of the policy, inadequate investment in human capital and technological innovations, low efficiency of public investments, and inadequate attention to value chain development. The study suggests that increasing public agricultural expenditures alone may not suffice to enhance agricultural value-added growth rates and that policymakers should focus on complementary investments in rural development, education, and technology to leverage the benefits of public investments. Mujere and Hassan (2016) finds that incorporating technology and market-oriented strategies in Zimbabwe, enhances smallholder farmers' capacity to participate in high-value food chains, leading to improved livelihoods and increased value-added growth rates.

Overall, the study highlights the importance of complementary investments and market-oriented strategies in promoting agricultural value-added growth rates in Sub-Saharan Africa. Policymakers should focus on building rural infrastructure, strengthening institutions, improving access to education and research, facilitating technology transfer and innovation, and creating an enabling environment for market-oriented agricultural development. By implementing these policies, Sub-Saharan Africa can improve its agricultural value addition, reduce poverty, and promote inclusive and sustainable development.

Conclusion

Africa's status as a significant net food importer is projected to escalate from \$35 billion in 2015 to an anticipated \$110 billion by 2025, highlighting an immense food demand opportunity. This potential can be harnessed from the continent's vast untapped arable land of over 65%, which is critical to sustainably nourishing the estimated global population by 2050. The 2003 Maputo Declaration illustrated the commitment of African leaders and governments in driving agricultural transformation in the continent, through the CAADP, with the objectives of eradicating malnutrition, extreme poverty, and hunger while fostering prosperity. This study affirms the effectiveness of the 2003 Maputo Policy on agricultural production. Nevertheless, the lack of policy effect on agricultural value-added growth rate stems from the

dominance of primary agriculture and the need for enhanced value addition and processing of raw materials into standardised products. To unlock the sector's potential and establish a solid foundation for nutrition, prosperity, and an improved quality of life, the agricultural sector must evolve from a social-welfare model to a business-oriented approach. A dynamic private-sector led transformation catalysed by the public sector, creating conducive investment conditions and partnerships, is essential. Therefore, the collaboration of resources from a broad set of private and public sector actors, coordinated partnerships and innovative financial instruments, are vital to realising agricultural transformation in the African continent.

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Abbreviations and Acronyms

AGRA	Alliance for a Green Revolution in Africa
ARDP	Agriculture and Rural Development Policy
ARDS	Agriculture and Rural Development Strategy
ASTI	Agricultural Science and Technology Indicators
AU	Africa Union
AU-NEPAD	African Union-New Partnership for Africa's Development
CAADP	Comprehensive Africa Agriculture Development Programme
DiD	Difference-in-Differences
D-K	Driscoll-Kraay
EAC	East African Community
ECA	Economic Commission for Africa
ECOWAS	Economic Community of West African States
ECOWAP	Economic Community of West African States Agricultural Policy
FAO	Food and Agricultural Organization
FAOSTAT	Food and Agricultural Organisation Corporate Statistical Database
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
IFPRI	International Food Policy Research Institute
MDGs	Millennium Development Goals
NEPAD	New Partnership for Africa's Development
OAU	Organization of African Union
PAE	Public Agricultural Expenditure
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
R&D	Research and Development
RISDP	Regional Indicative Strategic Development Plan
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SPEED	Statistics of Public Expenditure for Economic Development
SSA	Sub-Saharan Africa
UN	United Nations
WDI	World Development Indicator