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Impact of Election Expenditure on Agricultural Service Delivery Expenditure in Zambia, 2000-2021

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Abstract

Purpose: This paper examined the public expenditure changes between elections and agriculture service delivery. The aim was to determine how the relationship trend related to agriculture growth. Early analyses assumed that elections act as a signal for preferential public expenditure. Thus, in Zambia, agriculture would be a priority as the government claims over 70% of citizens, directly or indirectly earn from the sector.

Methodology: Times series secondary data was analyzed for descriptive statistics from 2000 to 2021.

Findings: The evidence is that agriculture public expenditure was lower than CAADP targets in this period. Agriculture research as a service received the lowest funding. The trend also revealed that there were very sharp increases in election expenditure in both the preceding year and in the year of elections. In most election years this was close to 2% of total national public spending over the study period. These election spending spikes may have induced cyclical fiscal shocks, difficult to recover from, resulting in limited fiscal space and a reduction in agriculture spending. The electoral cycle induced fiscal shocks, over time, may have also led to a downward trend in agriculture growth. The authors identify this phenomenon as the 'functionality burden of democracy'.

Recommendation: Based on the findings the study recommends that agreed policy objectives in agriculture and CAADP commitments must become a national mission. This would mean that the agriculture goals are shared at all levels including family, schools, private sector, civil society and the media.

Keywords: *Democracy & Functionality, Elections, Expenditure, Agriculture*

INTRODUCTION

In recent times, the debate on development challenges in new democracies has taken a new direction. Writers on cost of elections point out that Election Management Bodies (EMBs) must compete for government funds like any other equally important sector such as defence, health, education, etc. (Lopez-Pintor & Fischer, 2005; Foltz, 2014; Lucas, 2015). Administration costs alone for elections can add up to millions of dollars per election in many countries around the world. These costs are compounded by other expenditures on voter education, poll advertising, audits, etc. The International Institute for Democratic Electoral Assistance (IDEA, 2017) gives rising costs as the number one reason for many countries especially in developing countries to argue that holding elections could not be sustained when other public spending priorities are not being met. The IDEA (2017) advised that election costs must not be viewed as an expense but an investment in political and social stability. However, some academics and stakeholders argue that democracy cannot be sustained if inequality and poverty continues to be on the rise (Chang, 2010; Moyo, 2018; Moreno-Monroy et al., 2020; Mazzucato, 2020). The Economic Commission for Latin American and Caribbean countries (ECLAC, 2021) called for a care economy and care society with broad social dialogue to redistribute and increase public resources invested in the common good.

Democracy is still a popular form of conducting politics. Evidence of this is in the number of countries that turned to liberal democracy post the cold war. In fact, elections have been described as the most visible event in liberal political economies allowing for eligible voters to elect leaders of their choice and thereby impacting public expenditure policy (Moyo, 2018; Clark, 2019; Mazzucato, 2020). “By weeding out incompetent politicians and giving those in power, an incentive to put in effort, elections are believed to provide a suitable incentive for service delivery” (Vergne, 2011). According to the Civil Registration Centre for Development (Van de Straaten, CRC4D, 2019) an amount of US\$ 125 billion dollars is believed to have been spent on elections in Africa since 2000. The CRC4D found that the average election costs (US dollar market price/capita, 2018) in Europe, North America and Australasia at US\$4.00 dollars were nearly the same as Africa at US\$4.50 dollars. However, when you consider the disparities in disposable income between Africa and these other regions, it is appreciated the heavy burden carried by Africans in paying for their elections. The CRC4D (2020) noted that in 2018, the average annual income in the USA stood at US\$58,000 dollars per person, while in SSA it was only at US\$1,500 dollars. And even when the results were compared with India at US\$1,800 dollars per person, election costs in Africa were found to be 6 times higher. James (2020) found empirical evidence in a study of 72 electoral bodies from around the world that on average most countries spent less than 1% of total public expenditure at parity on election administration. But when disposal income was added which seemingly controlled for population and country size, the evidence was that election costs in Africa were quite high in relation to economic size.

Elections maybe a reliable barometer of the democratic experience of a country but by the dawn of the second millennium, academic interest had gained momentum on why the ‘high winds’ of expectations had not been able to deliver “more, better and faster growth” in new democracies (Moyo, 2018). The first generation explanations were that economic structures in developing countries were government ‘heavy’ to allow for the ‘free market’ spirit to efficiently allocate resources. Economic reforms through the IMF structural adjustment programs were

implemented across many new democracies in the 1990s to reduce inflation, ignite foreign direct investments and enhance service delivery. But the publication of the *Attacking Poverty Report* (World Bank, 2000/1) and the UNDP Development Report (2004) revealed continued high poverty levels in many of the countries in spite of liberal democratisation. These publications prompted many academics and development organisations to claim that the IMF reforms had not resulted in the trickle-down effect, expected to reduce inequality and poverty. They called for new strategies to address the development challenges in poor democratic countries (Fritzbein, World Bank, 2005; Moyo, 2018; Ligon & Sadoulet, 2018; Mazzucato, 2020). IMF reform critics such as Joseph Stiglitz (2002) and Chang (2010) observed that the interventions had always wrongly assumed imperfect governments and perfect markets. Moyo (2009) blamed donor dependency which she said resulted in the absence of home grown solutions.

Social contracts involving politicians, citizens and civil servants were the basis of the second generation debate on enhanced service delivery in low income countries (Friss-Hansen, 2014). This called for a focus on sector reforms away from the usual macro level changes. Retooling of public institutions was prioritised so that they were able to deliver basic functions and in so doing promote the wellbeing of the society. A more transparent society with independent media, vibrant civil society and access to information (Kosec & Wantchekon, 2018) was seen as key in ensuring that narrow group and private interests did not interfere with the state often diverting it from serving interests of the general public. In most African democracies, this was actualised into system and legal reforms such as enhanced public financial management and the fight against corruption. However, the World Bank (2020) report on Sub Sahara Africa (SSA) Poverty Data showed that 40% of the population still lived in extreme poverty. Between 1990 and 2020 poverty levels had only reduced from 57% to 41% with many living without access to the basics such as adequate food, water and sanitation.

A research on African agriculture public expenditure trends by Fan et.al (2009) found that while expenditure on agriculture in Sub-Sahara Africa had increased on average from 3.7% to 6.2% between 2000 and 2005, there were extremely large variations across countries with some registering negative growth rate on agriculture spending. A decade later, the Food and Agriculture Organisation (FAO, 2021) reported that in addition to Africa spending less per capita on agriculture relative to other regions in the world, most African countries had not yet met the African Union (AU) 10% Comprehensive African Agriculture Development Program (CAADP, 2002/3) public expenditure targets. The CAADP placed agriculture annual growth target at 6% with an extra 1% of national expenditure set in 2006, to be spent on agriculture research. A breakdown of the available expenditure found that countries spent an increasing share of their budgets on input subsidies and social protection programmes such as cash transfers and school feeding programmes. In contrast, it is expenditure on investment in R&D, extension services and rural infrastructure which is said to have relatively high returns on productivity and poverty reduction (Stad & Beintema, 2015; Mink, 2016). The FAO (2020) reported that hunger levels continued to rise pre the COVID-19 Pandemic with over 235 million people affected in Sub-Sahara Africa and strongly threatening the global zero hunger agenda by 2030.

Elections are assumed to play a signalling role for voter preferences (Dalton, 1970; Chitembo et al., 2014; Moyo, 2018; Miller, 2021). The Government of Zambia (GRZ) initiated an input

production subsidy, the Fertiliser Support Program (FSP) in 2000 which changed to the Fertiliser Input Support Program (FISP) in 2003 to include inputs for other crops beyond just seed and fertiliser for the staple maize. Earlier in 1998, an output subsidy, crop procurement through the Food Reserve Agency (FRA) was enacted. These interventions were aimed at curbing the high poverty levels of the 1990s which over 80% in some areas (National Agriculture Policy, 2006). Since 2009, over a million farmers have been supported with farming inputs each year under the FISP (Mason et al., 2013). The GRZ has also been the largest crop buyer guaranteeing a floor price for ten FISP registered crops such as maize, rice, soya, cassava, beans and even cotton. From 2000, over 600 maize seed varieties were approved on the market by the Zambia Agriculture Research Institute (ZARI) with rice as a far second with only 12 varieties. In 2014 and 2018 over 600 research and extension officers were recruited, the highest recruitment in decades (Ministry of Agriculture, 2020).

But despite these interventions in the agriculture sector the World Bank (2021) ranked Zambia as one of the countries with the highest levels of poverty and inequality globally at over 65% in rural areas. Over 70% of Zambians earn, directly or indirectly, from agriculture, a sector that also absorbs 67% of the labour force and is the number one source of employment for citizens (GRZ, Second National Agricultural Policy, 2016). However, between 2000 and 2010, the agriculture sector in Zambia stagnated with production growth at 1% per annum compared to 3% population growth and was far off the Maputo target of 6% (Goverah et al., 2009; GRZ, Census, 2010; Jayne, 2011; Chapota & Sitko, IAPRI, 2015). Have elections failed to be an effective signal?

Balamatsias (2018) confirmed that democracy leads to increased public expenditure. But while on an aggregate level, budgets may seem very quantitative, specific sector and more importantly functional releases are important for service delivery improvement (Mandl et al., 2008). In an analysis of EU public expenditure by function, they concluded that disaggregation of the budget to functional lines was the first attempt at appreciating the functional response of the expenditure to national priorities. Further, Hadley et al. (2021) recommend that while the Public Financial Management System (PFM) is important, analysis of spending challenges in specific sectors must adopt a 'public finance' lens rather than a narrow PFM approach. Public expenditure is the single most important policy instrument available to governments of most developing countries for promotion of growth, equitable distribution and delivery of public goods and services (Das & Kar, 2016; Garry & Valdivia, 2017; FAO, 2021).

In the aftermath of the 2011 general election in Zambia, stakeholders including Parliamentarians began to question the unprecedented number of unscheduled elections due to nullification of petitioned results through the courts of law (Hansard, National Assembly of Zambia, 2013-2015; National Constitution Conference, 2013-2015). It was argued by many stakeholders that too many elections and rising election costs were diverting resources from other equally important public goods and services. In fact, it was these debates which led to the constitutional amendments providing for a running mate as vice president and adopted by the National Assembly in 2016. This amendment consequentially eliminated presidential byelections in Zambia in any case in which the president could not perform his/her duties.

The Electoral Commission of Zambia (ECZ Annual Report, 2011) reported 74 parliamentary and local government election result petitions, post the 2011 general election which involved 156 seats. There were also two presidential by-elections in 2008 and 2015 following the death

of incumbent presidents. The ECZ further reported that 358 local government by-elections occurred between 2006 and 2016 (ECZ, 2020). Forty nine by elections were held at parliamentary level during the same period with 33 between 2011 and 2016 alone. The ECZ described a general election as presidential, parliamentary, mayoral and local government elections, held on the same day, after every 5 years. All other elections in between general elections are termed as by-elections and occur as a result of annulment of election results, death, resignation, expulsion and conviction.

This paper aims to expand the political budget cycle models to include analysis of actual expenditure on elections. Cost of elections as defined by Mohr et al. (2018) includes all expenditure by the ECZ in a fiscal year whether elections occur or not in contrast to election costs which relates to the cost of a particular election occurrence. The election trend will be analysed against expenditure shifts in the aggregate agriculture allocations and expenditure. Further service delivery components are examined individually against cost of elections from 2000 to 2021 to determine the impact of election and non-election years. The study period was aligned to the start of FISP in 2000. The paper contributes to the knowledge gap in this way. Firstly, it identifies the gap in the existing political cycle models which have mostly investigated for electoral cycles as the influencing variable in fiscal volatility and not actual expenditure on elections and its impact on public spending trends. Secondly, the paper's analysis of the political economy scale on which elections and agriculture service delivery expenditure occurs, provides an initial time series view of the signalling weight of elections in budgeting. Finally, the paper contributes functionality burden of democracy as a new conceptual lens to explain service delivery failure in small economy democracies due to fiscal shocks from expenditure on elections.

The next chapter presents background literature on the variables. In Chapter 3, the statement of the problem and objectives of the study are presented. Chapter 4 explains the methodology and presents findings. In chapter 5 is a discussion followed by policy recommendations in chapter 6.

Statement of the Problem

Elections, like agriculture are part of service delivery in democracies. In Zambia, elections and agriculture service delivery impact the largest one group of people (Second Agriculture Policy, 2016, 70% of 18 million population) with over 4 million having voted in the 2021 general elections (GRZ/ECZ. 2021). However, the evidence in the literature is that while general elections have consistently been held since 1991 making Zambia an established democracy (Drazen & Brender, 2011) agriculture in Zambia has stagnated in the study period. This trend ignores the signalling aspect of elections (Dalton, 1970; Klomp & Haan, 2013; Poulton, 2014; Mogues, 2018). There is also an absence of robust data on budget performance on functionality expenditure on agriculture service delivery and how that contributed to the wellbeing of the majority as well as agriculture contribution to the GDP. FAO (2021) made note that while expenditure levels are important, what money is spent on is even more important in agriculture. Since 1964, all the 7 national development plans to date identify agriculture as the engine for development and rural transformation. And yet there seem to be a mismatch between the policy pronouncements in agriculture and actual performance. The electoral impact theory alone is insufficient to explain this state of affairs. This is because it does not reconcile the motivation by political incumbents to pander to the largest group and at the same time grow agriculture.

As Stiglitz (2002) remarked, we can't assume all bad governments in low income countries. There is also insufficient analysed data on actual expenditure on elections to guide election expenditure policy in view of per capita consideration and even for comparison to other countries (James, 2020). Election expenditure is taken as a given with no consideration for cost reduction innovations in view of what has to be sacrificed whenever one government program is funded over another (Lucas, 2015).

In the absence of this descriptive correlational study between election expenditure and expenditure on agriculture, the status quo will continue. There will be no empirical evidence to determine possible explanations on agriculture stagnation despite a large aggregate budget quantity. While electoral cycle impacts are appreciated, it would not be easy to determine how much a role actual election expenditure and its shocks maybe the bigger cause of fiscal volatility, due to non-recovery from these cyclical spikes, after every 5 years in Zambia, and which may not be easy to recover from before the next election.

Purpose of the study

The study aims to expand the political budget theory by adding election expenditure as a variable to be investigated for its impact on service delivery in agriculture and ultimately agriculture growth. Traditionally, the theory has focused on the election cycle and behaviour of politicians to observe public expenditure variables. In this case, we will track the trends in the allocation and actual expenditure on elections. This is important to understand how much misallocation or even withholding to the ECZ may have occurred during the study period. Both election allocation and expenditure data are necessary for trend analysis of the public expenditure on agriculture and to determine how that was shifting in election and non-election years. This analysis should provide a deeper understanding of how democracy functions with election expenditure on one hand and service delivery on the other. The purpose of the study is to offer a conceptual lens to explain, that beyond electoral cycle impacts, election expenditure may even be more responsible for fiscal volatility from which newly democratised small economy nations may find difficult to recover from. This is a phenomenon we refer to as the *functionality burden of democracy*.

EMPIRICAL STUDIES

Keynesian studies show that governments can use public expenditure to direct development (Gary & Vadivia, 2017; Mazzucato, 2020). However, Fiscal volatility due to budget manipulation as a result of the desire by political incumbents to remain in office has been well written about as the cause for the deficits (Block, 2000; Shi & Svensson, 2003, 2006; Drazen & Brender, 2005; Vergne, 2011; Ebeker & Olcer, 2013; Mogues & Roasario, 2016; Florian Dorn 2021). Initial studies concluded that electoral impacts were influenced by information asymmetry and adverse selection (Rogoff & Sibert, 1988, 1990). The aggregate budget has also been traditionally observed for electoral impacts through the deficit and tax changes (Drazen & Brender, 2005). They analysed secondary budget data in 74 developed and less developed countries from 1960 to 2003 and concluded electoral cycles where limited to new democracies. Vergne (2011) shifted from the aggregate budget to the composition changes coinciding with election timing. His sample was 42 countries from 1975 to 2001. He concluded that the current account was favoured and included visible expenditure such as subsidies as well as targeted groups perceived to have much electoral capital in an election. Parametric estimation model was applied to secondary data.

The model was further expanded to type of government, electoral process and strength of governance institutions (Klomp & Haan, 2013). They used the dynamic panel model of estimation of an unbalanced data set based on Shi and Svensson (2006) on 70 democratic nations from 1975 to 2009. A recent study by Drazen and Brender (2011) found that leadership changes in established democracies led to fiscal volatility for up to 2 years after elections. Their sample was 71 democracies from 1972 to 2009. Mogues and Rosario (2016) found that interest groups contributed highly to budget allocations in agriculture in election years. Using secondary data on Mozambique, they applied a mixed method approach and found that agriculture subsidies were used to woo voters in election years.

Shi and Svensson (2003) noted that the most common empirical estimation for political budget cycles was parametric ordinary regression. However, debate has continued on the suitability of this model in different situation (Shi et al., 2006). Non-Parametric model was used by Balaguer-Coll et al. (2014) to investigate election calendar impacts at local level in Spain from 2000 to 2007. Their study investigated the probability of local government being re-elected and applied multivariate regression models based on Bayesian. The evidence was that increases in local government spending increased chances of re-election. Both current and capital expenditures had a positive effect but were preferred pre-electoral.

Ebeke and Olcer (IMF, 2013) investigated fiscal volatility in 68 low income countries from 1990 to 2010. They argued that earlier studies may not have captured electoral impacts completely as most countries in the sample had not yet had frequent and competitive elections. Econometric estimation modelling was used for analysis. They found evidence of electoral impacts up to 2 years after the elections in the range of 1% of the GDP. More importantly for our paper, Ebeke et al. (2013) stated that when elections occurred in these countries, it implied a macro-economic costs. However, they did not analyse the impact of that cost on fiscal stability stating that by their nature as low income countries, most of them had elections supported by donors. However, most of those countries have become established democracies like Zambia. While donor support whenever it occurred is not differentiated in our paper, a recent study on election expenditure by James (2020) showed that in 2018, there was minimal donor support to election management among the 72 electoral bodies surveyed. And so the reference to election expenditure by Ebeke et al. (2013) provides the baseline for an investigation into how commensurate the price of electoral governance is to service delivery in a sector such as agriculture in Zambia.

In the USA and UK, academics expressed concern at the rising costs at each election and claimed that it was not clear what was driving election costs. Clark and James (2020) called for more transparency in allocation to elections during the budget process to avoid misallocation. Economies of scale and political influence were both found to play a role in election costs (Hill, 2012; Foltz, 2014; Mohr et al., 2018). But the absence of global data has made it difficult to compare costs across countries and regions (Lopez-Pintor & Fischer, 2005; Clark, 2019, 2020; James, 2020). Elections in a new democracy is usually discussed in the context of poor delivery, corruption or violence (Clark, 2019) crowding out any narrative on how actual expenditure may impact fiscal stability. The authors wish to state from the onset that this paper is not against elections. However, both arguments for extra funding or withholding from election would benefit from actual evidence on how election expenditure fiscally signals priority expenditure elsewhere.

METHODOLOGY

The secondary data used in this study is time series sourced from the Ministry of Agriculture, Ministry of Finance and the electoral commission of Zambia. The investigation applied descriptive statistics to describe the nature of the data by analysing and interpreting conditions that exists between the variables (Creswell, 2012, 2014). This study analysed and interpreted the relationship that exists between expenditure and allocations to Ministry of Agriculture and to the Electoral Commission of Zambia. The agriculture service delivery components are disaggregated into FISP, FRA and R&D. There are 22 observations from 2000 to 2021. The FISP programme was launched in 2000 and this provided the basis for the starting point.

Further, in 2013, the republic of Zambia rebased the currency by dividing the currency values by 1,000. Additionally, the data was adjusted for inflation using the 2010 Consumer Price Index (CPI) for each year as calculated by the Bank of Zambia. Microsoft excel 2016 functions were used to ensure that data before the rebasing year, was well aligned to the rebased data to achieve uniformity of data.

PRESENTATION OF FINDINGS Descriptive Statistics

Table 1 provides summary statistics of public expenditures from 2000 to 2021.

Table 1: Expenditure in millions of Kwacha's (adjusted for inflation using 2010 Consumer Price Index after rebasing from 2000-2012)

Statistic	ECZ	MoA	ASD	FISP	FRA	R&D
Mean	1.943	13.540	16.032	8.334	7.695	0.004
Median	1.414	11.869	11.085	3.422	3.880	0.003
Maximum	5.495	30.037	76.210	66.623	56.115	0.015
Minimum	0.277	0.012	0.012	0.059	0.014	0.0000004
Std. Dev.	1.470	90.744	18.713	14.267	12.482	0.004

Source: Authors Calculations/ZMW=Zambian Kwacha

Table 1 indicates that in the last two decades (2000-2021) expenditure on election administration in Zambia averaged ZMW 1.943 million in real values. Over the same period, the electoral body's highest expenditure was ZMW 5.495 million. The range between the highest and lowest expenditure was over ZMW 5 million. The aggregate agriculture service delivery (ASD) expenditure averaged about ZMW 16.032 million. The highest expenditure on ASD was ZMW76.210 million, with the largest release to the FISP at ZMW 66.623 million. Among the three ASD components, R&D had the lowest average expenditure at ZMW0.004 million with the maximum amount at ZMW 0.015 million.

Figure 1 shows the ECZ allocation and expenditure in real values over the study period. There appears to be steep increases in expenditure in election years in 2001, 2006, 2011, 2016 and 2021. The highest expenditure in real values was in 2016 with the lowest in 2006. There were also very high figures in 2008 and 2015, the years of presidential by-elections. However the largest misallocation appears to have been 2006 where allocation was way above actual expenditure. There was a comparatively high expenditure trend in the year preceding the

general election compared to other non-election years except for 2008 and 2015. The period 2012 to 2014 also had comparatively higher expenditure compared to any in-between election period with 2013 having the highest expenditure over the budgetary allocation.

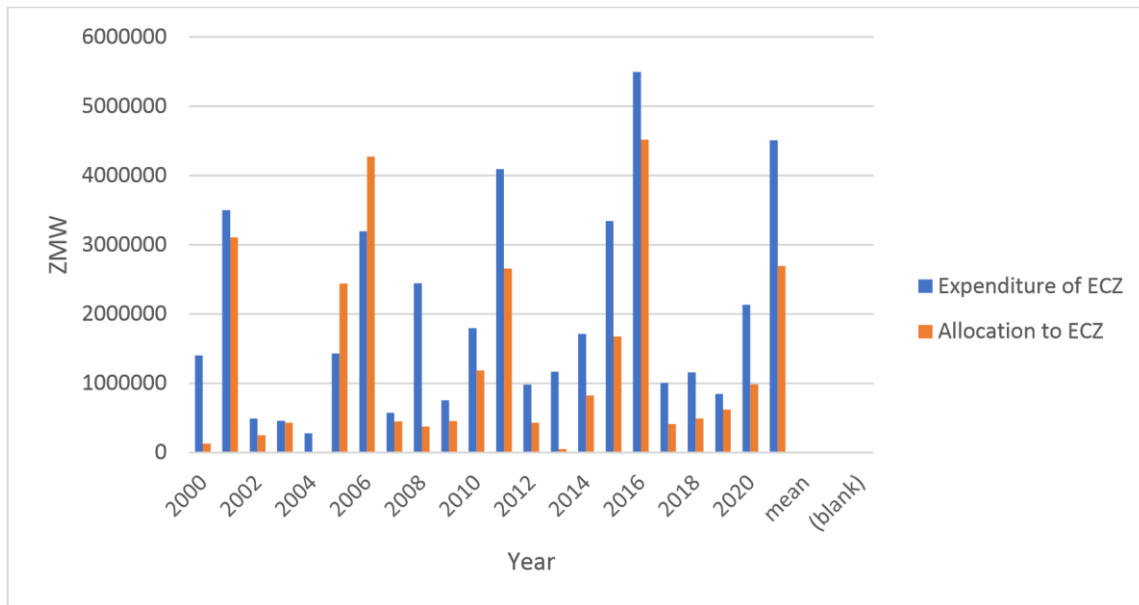


Figure 1: ECZ allocation vs. expenditure

Figure 2 represents expenditure on elections as a percentage of the national expenditure. As in figure 1, election years had the highest expenditure as a percentage of national expenditure. In 2001, 2006, 2011 and 2016, the expenditure percentage was close to 2% of national expenditure. Only in 2021 was it just below 1%. There was also a consistent increased expenditure percentage trend in the year before the general election years. In 2000, 2005 and 2010 this was 1% of national expenditure. We found an outlier statistic for 2012, a non-election year, not preceding or post elections but at over 4% of election expenditure percentage, the highest in the whole period of study.

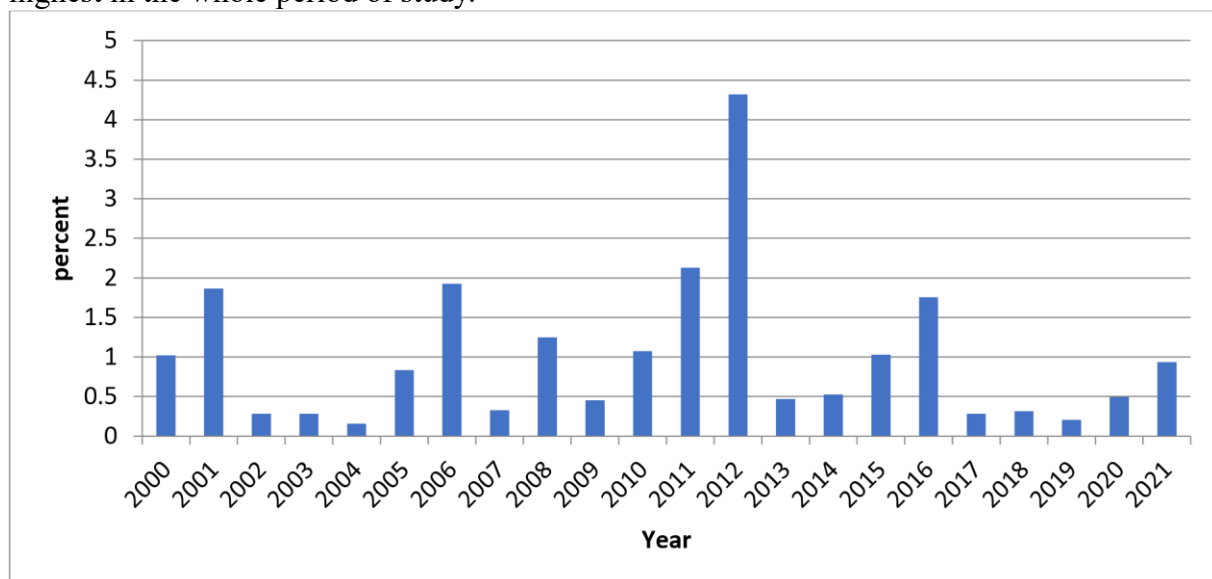


Figure 2: ECZ expenditure as percentage of national budget

Budget allocation and expenditure at the MoA is shown in Figure 3 as a percentage of the national budget. The data indicates that over the study period, both the budget allocations and expenditure did not exceeded 10% of the national budget.

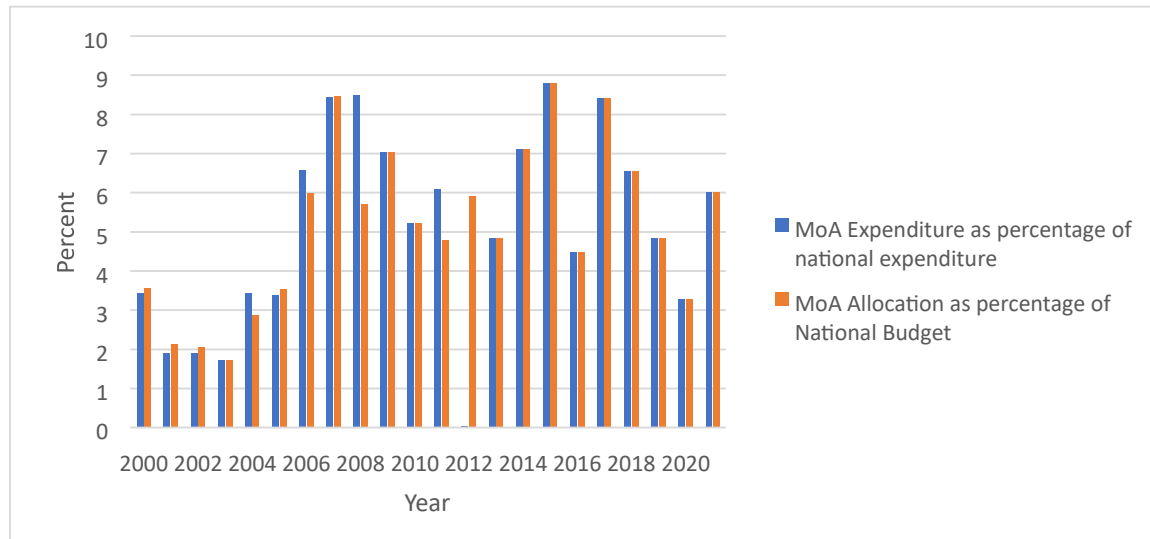


Figure 3: Ministry of agriculture allocation vs. expenditure

In 2000, 2001, 2002, 2005, allocations were higher than actual expenditure. In 2012 in particular there appears to have been negligible expenditure when you compare to the allocation. The largest discrepancy in favour of expenditure is 2008. In most years allocation and expenditure were almost equal and this trend was very visible from 2014 to 2021. The MoA expenditure seemed to have dropped from 2001 to 2003. Thereafter, expenditure rose until 2008. The peak expenditures were observed in 2007, 2008, 2015 and 2017 at over 8% of national expenditure. In election years, the lowest expenditure was in 2001 at just below 2% of national expenditure with the highest in 2006 at about 6.5%. The highest expenditure was in a non-election year in 2015 at about 8.8%. Generally allocation and expenditure at the MoA had an erratic trend of up and down especially after 2008.

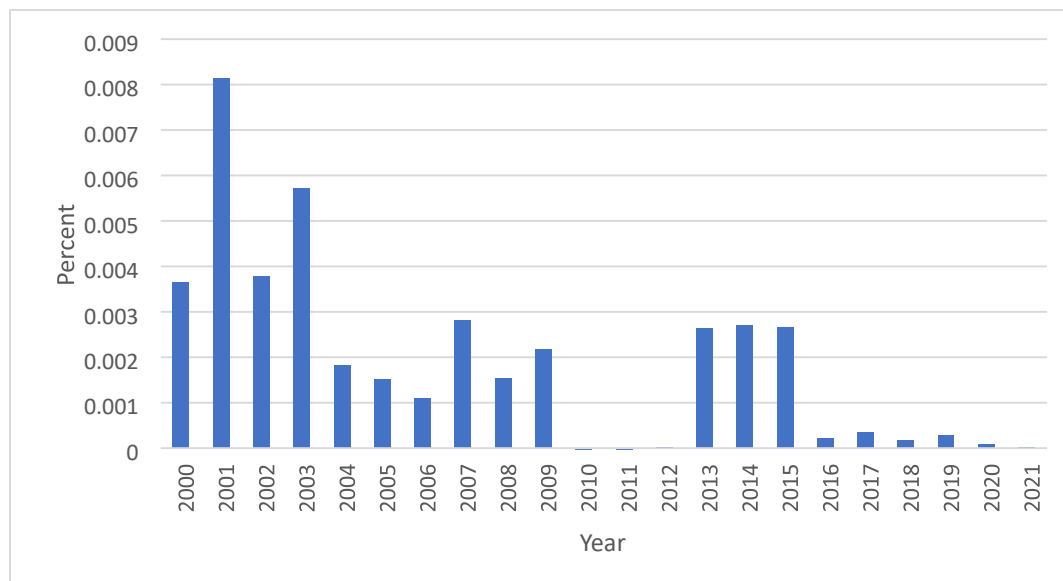


Figure 4: R&D expenditure as percentage of national expenditure

Figure 4 depicts R&D expenditure as a percentage of the national budget. Over the 22 year period, expenditure on R&D had not reached 1%. The largest amount was expended in 2001 with 2010, 2011 and 2021 with nothing. There was negligible expenditure from 2016 to 2020. The trend appears to have been more consistent from 2000 to 2009 and from 2013 to 2015.

Figure 5 shows the expenditure trend on the three service delivery components. As shown in figure 4, expenditure on R&D was almost negligible. Expenditure on the FISP and the FRA was highest in real terms in 2000 and 2001 respectively. The FRA also had notable increases in 2010 and 2011. After 2012, the FISP had consistent increases but with an erratic trend of up and down. This was quite similar to the FRA as well. In 2000, 2009 and 2015, the years preceding the general elections, there were notable increases in FISP which reduced the following year. In contrast, except for 2015 and 2016, the FRA seemed to increase in expenditure above the year before, in the general election year.

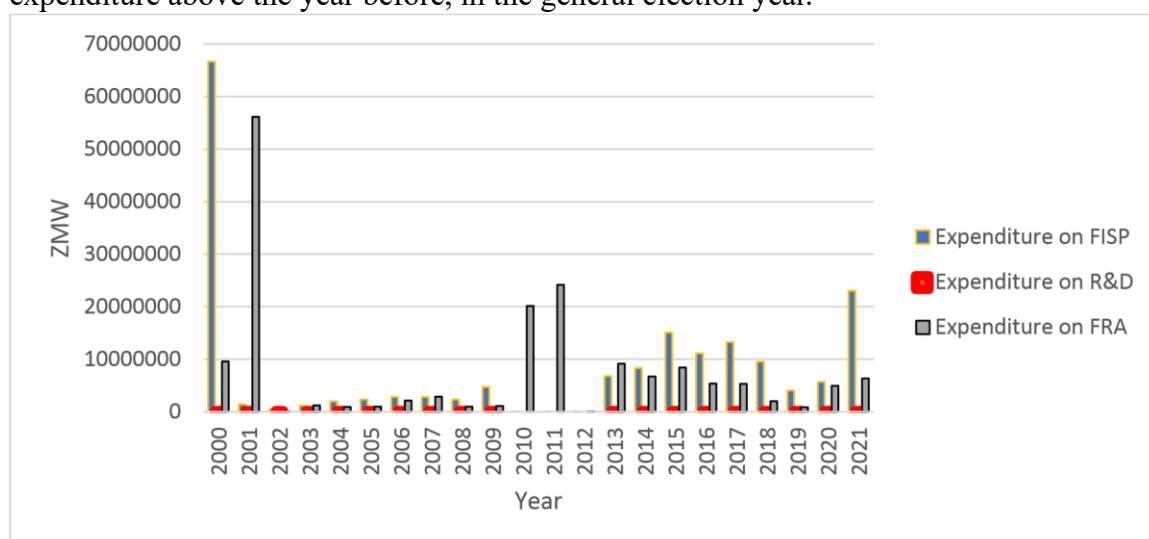


Figure 5: Expenditure on FISP, FRA and R&D

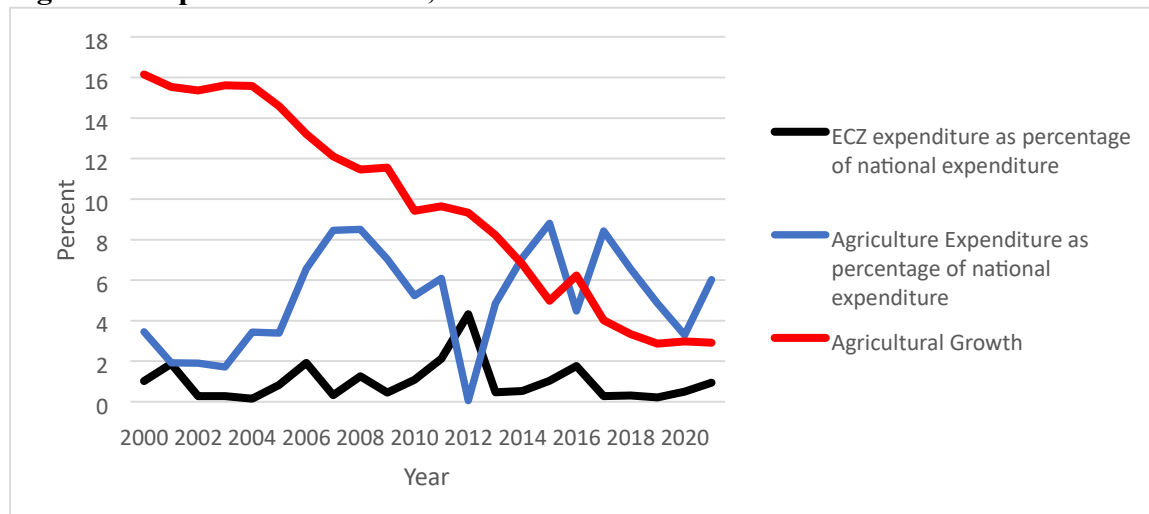


Figure 6: Agriculture growth

As per figure 6, agriculture growth had a downward trend over the period from 16.5% in 2000 to just below 3% in 2021. The high growth in 2000 and 2001 coincided with the highest ever expenditure levels in real terms on the FISP and FRA subsidies respectively. However, general expenditure on agriculture was one of the lowest in the lowest in the same period. While 2014 and 2016 had lower expenditure compared to 2015 and 2017, they had positive growth over the year after. At first glance, the trend appears to be that when there were significant increases in expenditure at the ECZ, expenditure at the ministry of agriculture went down.

DISCUSSION

The descriptive statistics provided information observed for variable characteristics and trends. Below is the discussion on the findings.

Election Allocation and Expenditure Changes from 2000-2021

The results showed that expenditure always surpassed allocation except in 2006 when allocation surpassed actual expenditure by almost a million. The 2006 case may have been because of the expenditure challenges experienced by the ECZ in their first election administration in 2001 as an autonomous body. The deficit may have encouraged them to over budget resulting in less expenditure in 2006. However, in some cases the difference between expenditure and allocation was quite large. 2008 and 2015 is explained by the presidential byelections due to the death of sitting presidents. The unprecedented increase between 2012 and 2014 maybe due to the unprecedented number of parliamentary and local government elections as reported by parliament (National Assembly, 2014, 2015). There was also an increase in expenditure before every general election year which may account for spending on voter registration and education by the ECZ. Election administration spending is important as it can influence capacity to deal with election results challenges, voter turnout and election equity (Kropf et al., 2017; James & Jervier, 2017; Shur et al., 2017). Foltz (2014) observed that polling staff costs were found to be the highest component in election administration and yet there was still a high demand too for well trained and expensive managerial staff to properly deal with election administration.

The study found that the 2021 election was less expensive in real terms compared to the 2016 election and yet it had more registered voters and 62% more polling stations (ECZ, 2021). This maybe because of what Hill (2012) called the extant model of elections costs where she, argued that economies of scale brought costs down. In the study, it was found that on average in election years, the expenditure was over 1.5% of national expenditure. This was above the results by James (2020) who found that most EMBS spent about only 1% of national expenditure in election years. He did a study of 72 electoral bodies. In 2012, our findings in figure 2 were that the expenditure was over 4% of the national budget though not the largest in real value quantity which was in the 2016 general election at 1.8% of the national expenditure. A possible explanation maybe policy shifts in accounting when the Zambian Kwacha was rebased, abolition of subsidies which also gave room to expenditure on the unprecedented number of by-elections from 2012 to 2015.

In terms of election expenditure as a percentage of national expenditure, the finding were consistent with actual expenditure in real terms in that election and year preceding elections had a steep upward trend. And as explained above, this is alluded to costs of voter registration done the year before elections, and cost of conducting general elections in election years. The year 2000 before the election year of 2001, had the highest with 1% of national spending. Even though 2015 was also at 1% and 2008 at over 1.2%, this may be due to the unplanned presidential by-elections. Over the period of study, the highest election expenditure as percentage of total national spending was in 2012 at over 4%. This may be due to unprecedented number of parliamentary and council by-elections as alluded to already. However, the large percentage in relation to election expenditure maybe explained by the abolition of input and output agriculture subsidies in 2012, which made up over 90% of the budget in 2010 and 2011 (MoA, 2011). Their removal created a big whole in total spending, reflected in election expenditure as a percentage of the reduced total national spending in 2012. The following year in 2013, the government acquired the first Euro bond (GRZ, MoF, 2013).

Budget Allocation and Expenditure on Agriculture

Figure 3 showed that there was a small allocation mismatch with expenditure from 2000 to 2002 and in 2005. And there was a consistent drop in expenditure from 2001 to 2003. This may have been due to lack of fiscal space because of debt repayment challenges as Zambia was part of the Heavily Indebted Poor Countries (HIPC, World Bank, 2000, 2002). The sharp and stead increases from 2004 to 2008 may have been due to new impetus when the FSP was changed to FISP and number of farmer beneficiaries increased. The explanation for the subsidy transformation and increased expenditure on the same could have also been due to the continental commits to the CAADP targets initiated in 2003. It seemed that more often than not allocation at the MoA matched expenditure which may be due to the fact that the major commitments were to the FISP and the FRA. A consistent number of one million farmers was supported from 2010 to 2021 (MoA, 2022) which may explain why the trend is very visible from 2013 to 2021. In terms of accounting, it may reflect a copy and paste with the previous year as the baseline (Cole, 2021) and not much shift in staff employment and expansion of service delivery. We also believe that expenditure on other service delivery in agriculture such as agriculture related infrastructure (like irrigation and dams) may have been provided through the ministries of water and local government as well as direct donor funds to projects. The years 2007, 2008, 2015 and 2017 were peculiar as they had quite high agriculture expenditures. The

explanation for 2007 and 2008 may have been a response to campaign promises after the 2006 general elections where the administration, for the first time received overwhelming support from rural agriculture provinces in Zambia. The country also returned to national planning with the 5th development plan in 2006 which prioritised agriculture as a key sector for economic diversification and rural development (NDP, 2006). The country had also reached the HIPC completion point in 2005 (AfDB, 2005) resulting in debt relief which may have further opened up fiscal room for agriculture.

IMF discussions from 2009 may have contributed to reduced expenditure at MoA following the world financial crisis of 2008. The new administration completely scrapped the input and output subsidies in 2012, resulting in an extremely reduced MoA expenditure considering the large chunk was spent on the two programs (Chapota and Sitko, IAPRI, 2015; MoA, 2021). The Farmers reaction may have resulted in a steady increase in expenditure peaking in 2015 and 2017. However, another IMF engagement and increasing debt maybe the reason for reduced expenditure trend from 2018 only reversed in the general election year in 2021.

FISP, FRA and R&D Expenditure in Election and Non-election Years

Expenditure on R&D was almost negligible and allocated mostly to research on one crop, maize (MoA, 2019). This may be due to the political nature of the staple food and the desire to have drought resistant seeds in a country with extremely limited irrigation. However, over the period of study this expenditure was almost zero in the period 2010 to 2012. In 2010 and 2011 this maybe because of the focus on the FRA due to unprecedented maize bumper harvest of over 2.7 million tonnes (only last seen in 1974, MoA, 2011) forcing government to procure beyond the food reserves of 500 thousand tonnes. In 2012, the newly elected administration may have scrapped all agriculture subsidies in an effort to engage on the Euro bonds which resulted in successful loans in 2013 and 2014. Outside 2010 to 2012, the R&D expenditure was consistently low and not in response to the 1% CAADP target. This may be due to lack of prioritisation at policy level or simply because the FISP and FRA are very visible interventions and directly benefit politician and farmer interest groups (Vergne, 2009; Ebeke & Olcer, 2013; Benin, 2016; Mogues & Rosario, 2016; Champita, 2016; Mogues et al. 2018). In this case, R&D expenditure maybe impacted over the study period due to electoral cycles which have resulted in a focus on subsidies and not investment. All the literature points to investment in R&D as the most effective for agriculture transformation and poverty reduction in low income agrarian countries (Fan et al. 2009; Mink, 2016; FAO, 2021).

The FISP expenditure seemed to only be consistent from 2013. In real terms expenditure was quite low except for 2000. The explanation for the period 2001 to 2009 may have been policy setting which resulted in the FISP. This was also the period for HIPC discussions and the 2008 financial crisis which initiated the IMF engagement. The Euro bond loans of 2013 and 2014 may have assisted to create fiscal space for FISP and FRA expenditure from 2013. The trend over the period seemed to be that FISP increased in the year just before the election year. However, in real values these increases were quite very small in the first decade of the study period and not much thereafter in the second decade. The sharp increase in 2000 may be due to the beginning of a policy shift as earlier alluded to when the input subsidy was first initiated. 2021 also seemed to be an outlier as FISP expenditure was quite more than the year before the general election as per trend. This may have been due to prior budgeting by the previous administration in 2021 in anticipation of winning an election which they ended up losing with

the majority of farmers claiming that support to one million farmers only for over a decade left many new farmers with no government support. Unfortunately in real terms, FISP expenditure has not been anywhere near the initial start in 2000 with an attempt in 2021 but still below a third of the original expenditure.

In 2001, there was a very high expenditure by the FRA which may be due to a protracted campaign by the ruling party leadership to change the constitution to allow for a third term presidential office. This was defeated in parliament but not before everything may have been done to woo voters. There was no return to those expenditure levels in the rest of the study period. An attempt was made in 2010 and 2011 but these were still far below the 2001 levels. Since then FRA expenditure has been at a minimum possibly due to reduced production because of the worst drought in 40 years in 2018 and 2019. Policy shifts may also contribute to the up and down trend depending on the availability of resources and political temperature in terms of food prices in the country.

Elections and Agriculture Expenditure and Growth

In figure 6, we saw the agriculture growth trend was on a down ward trend. Theoretically, in a country with regular elections and a large population in agriculture, agriculture expenditure would be expected to be higher or at least to be close to the 10% CAADP commitment (Klomp & Haan, 2013; Poulton, 2014). In countries with a green revolution in Asia, governments expended 15% and above to agriculture (Fan et al. 2009). In Latin America, there was a huge and sustained commitment to extension service researchers in Brazil, Chile and Argentina (Fan & Rao, 2003; Mink 2016) with a focus on a variety of crops and fruits. The study observed that while pronouncements are made on agriculture in Zambia, commitment is based on production and consumer subsidies. Poulton (2014) refers to a weak democratic push by small farmers to make policy makers to expend more where it matters most such as on R&D, dams, irrigations and storage. Another reason may be lack of actual budget performance information especially on a disaggregated level and how that meets policy objectives. This lack of information also applies to policy makers especially in democracies where governments may change often and new leaders have to begin to understand government expenditure and policy (Drazen & Brenda, 2011; Kosec & Wantchekon, 2018; Moyo 2018). There is also electoral cycle impacts which may lead to budget manipulation resulting in volatility and deficits (Drazen and Brenda, 2005; Vergne 2006). This is why Moyo (2018) argues against short election cycles claiming that they cement political budget manipulation further since incumbents are always in campaign mode. However, Ebeke and Olcer (2013) did note that when elections occur in small income nations, expenditure shocks maybe quite significant. Taken together with the study by James (2020) on 72 EMBs which showed that donor support for elections administration is very low around the world, this raises concern on just how much election expenditure impacts other sectors. Public expenditure is not an infinite exercise thus some programs have to be reduced or even sacrificed for others to happen effectively (Lucas, 2015).

The evidence in figure 3 showed an up and down trend on agriculture expenditure. However, the component on the major service delivery in figure 5 was quite erratic with no clear trend on expenditure levels. The expenditure over the period in real terms was quite low. High and consistent agriculture expenditure trend levels have been known to contribute significantly to agriculture growth (Akroyd & Smith, 2007; Fan et al. 2009; Benin, 2016; Mogues et al. 2018). In this case the coincidence between increased election expenditure and lower expenditure on

agriculture with a consistent low expenditure on service delivery maybe the cause of the downward trend in agriculture growth over the study period.

However, this by no means should be taken as being against expenditure on elections. Elections are constitutional and a good barometer of the health of democracy. However, that is not enough until expenditure on elections actually means more than choosing leaders but results in improvement of life for the majority of citizens. Linking election expenditure to specific service delivery in a sector responsible for the wellbeing of the most people may in fact be a mitigating factor for large electoral impacts and thereby the first step to correcting the *functionality burden of democracy*. There may be no alternative for democracy currently making reduction of its shortcomings an imperative. Otherwise it may not be sustainable and may be the reason for the rise of populist movements in the world.

This study was only able to observe the period 2000 to 2021. It was also limited to only crop agriculture because that is where the largest part of expenditure went. The times series secondary data meant that only quantitative analysis with no robust follow up interviews with some officials except for key ones as we attempted to clean and analyse the data. The data was also not easy to obtain especially on elections as other researchers have found (Mohr et al. 2018; Clark, 2019).

POLICY RECOMMENDATIONS

Based on the findings the study recommends that agreed policy objectives in agriculture and CAADP commitments must become a national mission. This would mean that the agriculture goals are shared at all levels including family, schools, private sector, civil society and the media. Consistency in policy especially regarding the subsidies was found to change at almost every postelection in 2001, 2011, 2016, and even after 2021. There was either a review of the programs, addition or subtraction of beneficiaries and reduction or increase in expenditure. This makes it difficult for civil servants and farmers to know what to expect during election years. It may have also provided an opportunity for increased expenditure on elections in 2012.

This should be complimented with increased agriculture related infrastructure and secondary education in rural areas. In the same vein, a national discussion is recommended on the benefits and challenges of decentralisation to settle the question on how it would accelerate or hinder rural development.

Expenditure on elections is important. However, it will be important to provide evidence and guidelines on what factors drive costs and encourage innovations that would cap costs without compromising delivery of free and fair elections. Electoral calendar impacts on public expenditure that negatively affects the composition of the agriculture budget need to be stemmed. This maybe done as recommended by Moyo (2018), that is having well educated politicians with experience in the ‘real world of work’. This would also have to be supported by massive civic education so that the majority voters appreciate the cost of their vote and implications on public expenditure if they don’t vote or vote with no basic understanding of economic issues and the role politicians must play. There may be need to reduce political decisions among civil servants by recruiting well trained controlling officers with streamlined and continuous in house government systems training.

The issue of corruption in agriculture, tilted towards expenditure on production and consumer subsidies may have to be addressed on a national level through further national policy

orientation on priority expenditure for growth and poverty reduction. The high turnover of political leadership at the agriculture ministry may have to be stemmed to allow for policy action. There were 5 minister appointed between 2011 and 2021. This study showed a trend in which when elections gained steeply in expenditure, agriculture expenditure as a whole reduced. However, FISP and the FRA gained the most and not R&D. A policy shift is recommended for increased and sustained investment in research and extension service to grow agriculture (Stads & Beintema, 2015; Mink, 2016; FAO, 2021). Increased and consistent public expenditure on agriculture, with better budgeting and innovation on elections is a good mix to begin *addressing the functionality burden of democracy*.

CONCLUSION

There may be need for a robust quantitative study on agriculture expenditure from 1964 to determine the actual impact of agriculture expenditure on growth. Investigations may have to include livestock, poultry, fisheries, and tree economy for a clear understanding of the relationship between election expenditure and total agriculture expenditure. As recommended by Mogues (2012) it may also be necessary for a comparison study to be done on agriculture expenditure trends and other sectors in view of policy objectives and budget performance. Further investigation on election data especially since 1991, and in what direction and trends costs have been going maybe necessary. The election expenditure impact on general public expenditure may be an opportunity for deeper understanding on how elections, beyond electoral cycle political manipulation actually impact the fiscal space. We would recommend a mixed methods approach for deeper understanding.

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