ABSTRACT: This study explores the untapped revenue potentials within Tanzania's agriculture sector, focusing on strategic analysis to unlock opportunities for growth and development. By employing a comprehensive data-driven approach, the research evaluates current agricultural practices, market trends, and economic factors influencing the sector. The analysis encompasses various subsectors, including crop production, livestock, and agribusiness, highlighting areas with the highest revenue generation potentials. Additionally, the study examines policy frameworks, technological innovations, and investment opportunities that could enhance productivity and profitability. Through secondary data analysis, the findings offer actionable insights for stakeholders, including policymakers, investors, and farmers. The research underscores the importance of rational taxpayer's registration, improving infrastructure, and fostering a conducive business environment to unlock the sector's full potential. Ultimately, this study aims to contribute to the sustainable growth and transformation of Tanzania's agriculture sector, driving taxation as a stimulus for growth and development.

KEYWORDS: Agriculture sector, Taxation, Tax revenue.
INTRODUCTION

Domestic revenue mobilisation has recently become a major concern in most emerging economies. Bringing agriculture-related activities fully into the tax net is now becoming one source that is increasingly looked at to obtain those increased revenues (Louhichi et al., 2023). Although agricultural taxation has been reported to be significantly decreasing not only Africa but also across many Global South countries since the 1990s due to what is reported to be caused by gradual economic liberalisation and structural adjustment programmes, it remains a significant source of revenue and contributor to GDP for many countries, the local governments in particular (Wilson & Waiswa, 2021).

Many emerging and developed countries struggle to tax the agriculture sector, and East African countries confront similar issues. Even though they have different definitions of tax bases and legislation, they confront the same difficulty when it comes to taxing the sector. For example, according to current statistics in the Wilson and Waiswa (2021) study, the agriculture sector in Uganda accounts for roughly 22% of GDP but contributes less than 1% of tax revenue. The study conducted by the Ministry of Economy and Finance of Rwanda in 2019 indicated that despite a 31% share of agriculture in GDP, the Rwanda Revenue Authority estimated that direct agriculture contributions are just 1% of total revenues. In Kenya, the National Tax policy and the Medium-Term Revenue Strategy (MTRS) for fiscal years 2024/25 to 2026/27 highlighted that although the economy is dependent on agriculture, the sector produces only 3% of tax revenue.

Likewise, agricultural activities are vital for Tanzania's economic growth and poverty reduction, but their role has evolved rapidly. While the sector typically contributes 27.2% to GDP and 24% to export earnings as well as employing over 66.4% of the labour force, these figures have decreased from 45% a decade ago, largely due to the emergence of other lucrative sectors like minerals and tourism services. However, tax collection from the sector ranks very low with an average of less than 1.7% of total revenue collected from the sector for the past 10 years (EARATC, 2022/23). This study attempts, therefore, to conduct an analysis in order to uncover revenue potentials in the agriculture sector in Tanzania.

LITERATURE REVIEW

Adama et al. (2018) underlined that agriculture is seen as the bedrock of any economy especially in Africa. Solid rock economies are built on its ability to explore its potentials and opportunities using natural resources, except in technologically developed countries like Japan. Ojeka (2016) and Asaleye et al. (2020) pointed out that agriculture plays a vital role in the national development of the most developed economy. The agriculture sector is perceived as a way to reduce overdependence on particular sectors or activities of the economy, such as the oil sector. Such countries will gain from increased export rates, improved foreign exchange, employment opportunities, poverty reduction, and contribution to economic growth.

According to Diaz-Bonilla et al. (2019), the overall tax/GDP ratio for the economy as a whole is inversely related to the share of agricultural production in developing economies. This inverse correlation may be due to the fact that in many developing countries, agricultural
producers are poor and operate in the informal sector; the difficulty and cost of collecting explicit taxes on a dispersed population; and/or the sector’s political ability to avoid taxation.

The study conducted by Albiman and Hemed (2022) identified the existence of a negative relationship between the tax revenue collected from the agriculture sector and the growth rate of the sector among the EAC members, Tanzania included. The noted challenge in most of these countries to tax the sector is because most agriculture activities are done traditionally and mostly at a small scale, also agricultural products are not taxed when sold in the domestic market (Khan, 2001; Bird et al., 2004; Basirat et al., 2014).

The study conducted by World Bank group (2012) indicated that the Russian government faces difficult trade-offs as it attempts to increase current low levels of tax revenue (16 percent of gross domestic product (GDP)) without discouraging investment in the agriculture sector, distorting incentives or prejudicing poverty reduction. Agriculture, as a major sector of the economy with a strong cash flow, is justifiably viewed as an important source of tax and currently generates around 35% of total tax revenue.

Rajaraman in his study (2014) suggests that presumptive taxes collected by local agencies are the best approach to farm taxation in developing countries. Further, suggested that land can be assessed according to its “productivity.” He proposes crop-specific calculations that reflect the potential value of different crops, thus yielding a more accurate depiction of expected revenue. In Rajaraman’s framework, the agriculture levy would use crop type, average sales price, and average yield to impute a farmer’s expected revenue, and then either place a low tax upon total turnover (sales) or place a higher tax rate onto what he calls the “taxable surplus”.

Light and Gerold (2019) stressed that the most popular and probably the easiest possible way of taxing the farmers is the adoption of indirect methods, such as fixed fees like licence fees, land fees, and trading fees. These fees can be imposed easily, often at a single location. For example, Rwanda applies a trading licence fee to farmers who wish to sell their products commercially. This method comes to the option due to weak institutions and the high cost of administering the direct income taxation.

Louhichi et al. (2023, p. 2), in their study, stressed that “produce cess is the most notable tax on agriculture in Tanzania”, which is “a levy charged by local government authorities (LGAs) as a percentage of the value of marketed agricultural production.” The imposition and administration of the levy have been going through ups and downs due to strong criticism from farmers, agribusiness, and stakeholders for accusing it of hindering the competitiveness of Tanzanian agriculture and reducing farmers’ incentives to produce and to invest.

From the studies above, it is clear that taxation of the agricultural sector in Tanzania like any African country is challenged by immense informality, administration cost, political avoidance from paying tax, poor agricultural producers (subsistence and small farms), and challenges in measuring the (actual) agricultural income. Therefore, for effective taxation of the sector, formalisation policies should be of the key attention and tax collection efforts could focus on land and large producers, while smallest farmers will fall into income categories that, by the usual criteria, would be exempted from wealth and income taxes.
METHODOLOGY

The study adopted a descriptive approach in which cross-sectional secondary data analysis was performed using secondary data from the TRA systems, respective Ministry, MDA, LGAs, Agriculture markets, Private Sector Organization and Importers. Excel tools were used to store, manage, sort, and perform descriptive analytics on the data.

Data Sources and Sample Size

This study retrieved secondary data from the TRA systems, respective Ministry, MDA, LGAs, agriculture markets, Private Sector Organization and Importers. The sample size ranges from 2015/16-2019/20.

RESULTS AND DISCUSSIONS

This section delves into agricultural taxation analysis, revealing its pivotal role in unlocking agricultural revenue potential. By scrutinising contribution of the sector into government tax revenue and domestic revenue, tax regime governing the agriculture sector in Tanzania, tax exemptions granted to the sector and existing potential to enhance collection from the sector, the study aims to reveal insights crucial for maximising revenue from the sector and illuminate pathways for leveraging taxation to propel agricultural growth in Tanzania.

Tax Revenue Generated from the Sector

The analysis covered the data of five years’ period from 2015/16 to 2019/20. The findings in table 4.1 below indicated that the agriculture sector has a dismal contribution in terms of tax revenue, on average, this sector has contributed about 1.7 percent of the total TRA collection for the period, which is very minimal compared with the share of this activity to GDP which is 26.6 percent in 2019.

Table 4.1: Share of Agriculture Sector to the Total TRA collection, 2015/16 – 2019/20 (Shs Million)

<table>
<thead>
<tr>
<th>Item/Year</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
<th>2018/19</th>
<th>2019/20</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Agriculture Tax</td>
<td>126,232</td>
<td>281,138</td>
<td>378,011</td>
<td>49,303</td>
<td>435,985</td>
<td>254,134</td>
</tr>
<tr>
<td>Total TRA Collection</td>
<td>12,525, 378</td>
<td>14,126, 590</td>
<td>15,191, 421</td>
<td>15,511, 330</td>
<td>17,622, 822</td>
<td>14,995, 508</td>
</tr>
<tr>
<td>% Agriculture taxes/Total TRA Collection</td>
<td>1.00%</td>
<td>2.00%</td>
<td>2.50%</td>
<td>0.30%</td>
<td>2.50%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Source: TRA Revenue Report

The poor performance of the sector as per above table aligns with the findings of Light and Gerold (2019) which highlighted that the performance of the same sector in Rwanda is just 1% contribution to the total revenues. Similarly, in Wilson and Waiswa’s (2021) study, the agriculture sector in Uganda has not contributed significantly to tax revenue, despite the introduction of a 1% withholding tax in 2018. Likewise, the study conducted by the Kenya Institute for Public Policy Research and Analysis (KiPPRA) (2024) highlighted that despite the
fact that Kenya remains dependent on the agriculture sector, the contribution of the sector to tax revenue is performing at less than 3%, as highlighted in the MTRS report.

However, the recorded increase in the share of the sector to the total TRA collection from 1 percent in 2015/16 to 2.5 percent in 2019/20 is solely explained with the increase in collection of export levy on cashew nuts Figure 2.4.

![Figure 4.1: Trend of Collection of Export Levy, 2015/16 – 2019/20 (Shs Million)](https://example.com/f4_1.png)

Source: TRA Revenue Report

**Contribution of the Sector to Domestic Revenue**

When the export levy on cashew nuts and other agriproducts is omitted, only 0.42 percent on average of the total domestic revenue for the period of 2015/16 – 2019/20 was collected from the agriculture sector, which is an insignificant contribution as compared to the share of the sector in the GDP ratio. Table 4.2 shows the share of revenue from agriculture to total domestic revenue.

**Table 4.2: Share of Agriculture Sector to Domestic Revenue Collection (Shs Million)**

<table>
<thead>
<tr>
<th>Item/Year</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
<th>2018/19</th>
<th>2019/20</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Agriculture taxes</td>
<td>26,285.36</td>
<td>41,669.62</td>
<td>35,799.98</td>
<td>47,519.49</td>
<td>40,403.25</td>
<td>191,677.70</td>
</tr>
<tr>
<td>Total Domestic taxes</td>
<td>7,869,933.17</td>
<td>8,554,028.55</td>
<td>9,094,576.53</td>
<td>9,383,272.46</td>
<td>11,098,374.79</td>
<td>46,000,177.50</td>
</tr>
<tr>
<td>% Agriculture taxes/Domestic taxes</td>
<td>0.33%</td>
<td>0.49%</td>
<td>0.39%</td>
<td>0.51%</td>
<td>0.36%</td>
<td>0.42%</td>
</tr>
</tbody>
</table>

Source: TRA Revenue statistics
Tax Regime Governing the Agriculture Sector in Tanzania

Taxation of the agriculture sector in Tanzania is not governed under a single statute or special tax regime. The government of Tanzania has gone through various reviews of the taxation system in line with the taxation of the agriculture sector, with the focus being on income earned by farmers, agents, and agriculture service providers. In this context, the study shed light on the general tax laws that govern the imposition of tax on income as well as the imposition of tax on services and agro-products.

The Income Tax Act (CAP 332)

The chargeability of the income earned by persons conducting agriculture activities is stipulated with income tax as per Section 4 and Section 11 of the Income Tax Act 2004 [CAP. 332 R.E. 2019].

The Customs (Management and Tariff) Act (CAP 403)

The Act has clearly highlighted the agricultural inputs which are subject to zero import duty rate.

The Value Added Tax Act (CAP 148)

Section 3 of the VAT Act Cap 148 imposes VAT on taxable supplies. However, Section 6 of the said tax has given some identified VAT exemptions specifically to agricultural inputs and unprocessed agricultural products. Some of such exemptions are; VAT zero rating is granted to crop farmers under co-operatives and producer associations registered for VAT for agricultural produce intended for export, Agricultural implements are exempted from VAT, Agricultural inputs are VAT exempt, Livestock, unprocessed basic agricultural products and unprocessed food for human consumptions are VAT exempt and diary implements and unprocessed dairy products are VAT exempt.

Stamp Duty Ordinance (CAP 332)

Agriculture, livestock and fishery produce are exempt from Stamp Duty on receipt. In addition, Stamp Duty on markets for agricultural produce is remitted.

Local Government Finances Act (CAP 290)

Multiple charges on agricultural and livestock produce had been rationalised and reduced, including the requirement to limit Produce Cess to 5% of the farm gate price.

The Vocational Education and Training Act (CAP 82)

Farms employers whose employees are directly and solely engaged in farming are exempted from paying Skills Development Levy.

Tax Exemptions Granted to the Agriculture Sector

The government of Tanzania considers the sector as pivotal for economic growth and development due to its strategic importance and large workforce. Consequently, tax
exemptions aimed at addressing sector challenges could substantially enhance poverty reduction, employment, and food security with minimal fiscal burden.

Table 4.3 shows that the overall Value Added Tax and Import Duty Agriculture Tax Exemptions for the period from 2015/16 – 2019/20 which are quite significant up to average 7.6 percent of the total collected agriculture taxes.

### Table 4.3: Agriculture Tax Exemptions Issued from 2015/16 – 2019/20 (Shs Million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture Tax Exemption</td>
<td>13,074.47</td>
<td>16,282.68</td>
<td>15,740.79</td>
<td>6,935.17</td>
<td>16,336.34</td>
<td>13,673.89</td>
</tr>
<tr>
<td>Total Agriculture Tax</td>
<td>126,232.31</td>
<td>281,138.09</td>
<td>378,010.67</td>
<td>49,302.45</td>
<td>435,984.85</td>
<td>254,133.67</td>
</tr>
<tr>
<td>% Agriculture Tax Exemption / Total Agriculture Tax</td>
<td>10.4%</td>
<td>5.8%</td>
<td>4.2%</td>
<td>14.1%</td>
<td>3.7%</td>
<td>7.6%</td>
</tr>
<tr>
<td>% Changes in Agriculture Tax Exemption</td>
<td>24.5%</td>
<td>-3.3%</td>
<td>-55.9%</td>
<td>135.6%</td>
<td>25.2%</td>
<td></td>
</tr>
</tbody>
</table>

Source: TRA, 2020

Generally, Agriculture Tax Exemptions had an average positive growth of 25.2 percent for the period from 2015/16 – 2019/20, though it registered a dramatic downfall from growth of 24.5 percent in 2016/17 to negative 55.9 percent in 2018/19. However, the amount of exemption issued increased by 135.6 percent despite the fact that the collection of total agriculture tax decreased in 2019/20.

The highlighted purposes for granting exemptions above are indistinguishable from the experiences of the rest of the developing world and some of the developed world, as highlighted in some of the studies, including Socheata (2023), Light and Gerold (2019), URA Report (2018), and the Economic Policy Research Centre (EPRC) (2015). However, some studies, such as the East Africa Revenue Authorities Regional Comparative (EARARC) Report 2024 and Ministry of Economy and Finance (MoEF) (2019), have proved the opposite, as they found that the relative insignificant performance of the sector in revenue collections has been caused by the tax exemptions granted to the sector, among other factors.

Moreover, the presentation on policy briefing by Kenya Institute for Public Policy Research and Analysis (KiPPRA) (2024) shed light on the decision taken by the government of Kenya to eliminate the tax exemptions, which were initially granted for the purpose of supporting the growth of the sector. This decision came after proving that the tax exemptions to the sector did not generate sufficient economic gains to justify the tax expenditures.

### The Existing Potential to Enhance Collection from the Sector

The main objective of this study is to identify untapped opportunities and overcome existing challenges in order to improve revenue collection and foster sustainable development within this crucial sector. The analysis uncovered the following potentials revenue streams from the sector:
Unregistered Potential Taxpayers in the Agriculture Sector

The sector currently accounts for only 1 percent of the total TRA’s registered taxpayers. At the end of November 2020, there were 17,192 registered taxpayers operating in the agricultural sector, which was estimated to increase to 20,306 taxpayers by December 2020. However, compared to the volume of potential taxpayers engaged in the sector, penetration is still very low, and it accounts for only about 0.11 percent of all potential taxpayers in the sector, hence the big potential for expanding the TRA tax base.

Table 4.4: Unregistered Taxpayers in the Agriculture Sector

<table>
<thead>
<tr>
<th>Item/Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour Force Engaged in Agriculture</td>
<td>16,503,373</td>
<td>16,897,711</td>
<td>17,295,672</td>
<td>17,743,864</td>
<td>18,214,838</td>
</tr>
<tr>
<td>Total Employment</td>
<td>24,659,135</td>
<td>25,467,538</td>
<td>26,304,005</td>
<td>27,170,342</td>
<td>28,076,821</td>
</tr>
<tr>
<td>Employment in Agriculture(% of Total Employment)</td>
<td>66.9%</td>
<td>66.4%</td>
<td>65.7%</td>
<td>65.3%</td>
<td>64.8%</td>
</tr>
<tr>
<td>Registered TIN in the Agricultural Sector</td>
<td>7,999</td>
<td>9,787</td>
<td>11,897</td>
<td>15,543</td>
<td>20,306</td>
</tr>
<tr>
<td>Registered TIN in the Agricultural Sector/ (% of Labour Force Engaged in Agriculture)</td>
<td>0.05%</td>
<td>0.06%</td>
<td>0.07%</td>
<td>0.09%</td>
<td>0.11%</td>
</tr>
</tbody>
</table>

Source: NBS and TRA (2020)

The study conducted by Mertens (2012) identified that in Mozambique, the lack of registered farmers poses a challenge to trading domestically, as it has been ideally cheaper for some of the firms to import agriculture products such as maize than buy from local farmers. This was because the buyers were unable to legally buy products from unregistered farmers without paying substantial taxes. The results from Light and Gerold (2019) also indicated that for emerging economies to curb revenue loss from the agriculture sector, they should prioritise their registration. The results above justify what was identified in the study conducted by Moore (2023), as cited in Groening et al. (2024), that most emerging economies are facing poor registration policies, which accumulate a large number of unproductive taxpayers who are unable to earn enough to be liable for tax.

Untapped Tax Base/GDP Potential

The agriculture sector accounted for 27.2 percent of GDP and from 2015/16 to 2019/20 and 66.3 percent of the working age population was employed in agriculture (Economic Survey,
2019). Despite this large contribution to the productive output of the country, the agricultural sector contributed only 2.5 percent to total tax revenue collected by the TRA in 2019/20.

Table 5.2: Untapped GDP Value Generated by Agriculture Activities (Shs Million)

<table>
<thead>
<tr>
<th>Item/Year</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
<th>2018/19</th>
<th>2019/20</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP from Agriculture (MP)</td>
<td>27,486,835</td>
<td>31,946,852</td>
<td>35,058,661</td>
<td>36,549,759</td>
<td>36,860,460</td>
<td>33,580,513</td>
</tr>
<tr>
<td>Total Agriculture Tax</td>
<td>126,232</td>
<td>281,138</td>
<td>378,011</td>
<td>49,302</td>
<td>435,985</td>
<td>254,134</td>
</tr>
<tr>
<td>Agriculture Tax Exemption</td>
<td>13,074</td>
<td>16,283</td>
<td>15,741</td>
<td>6,935</td>
<td>16,336</td>
<td>13,674</td>
</tr>
<tr>
<td>Total Agr. Tax and Exemption</td>
<td>139,306</td>
<td>297,421</td>
<td>393,752</td>
<td>56,237</td>
<td>452,321</td>
<td>267,807</td>
</tr>
<tr>
<td>Fiscal Share of Agri./Agri. GDP</td>
<td>0.51%</td>
<td>0.93%</td>
<td>1.12%</td>
<td>0.15%</td>
<td>1.23%</td>
<td>0.79%</td>
</tr>
<tr>
<td>Untapped Agr. GDP (MP)</td>
<td>27,486,835</td>
<td>31,946,852</td>
<td>35,058,661</td>
<td>36,549,759</td>
<td>36,860,460</td>
<td>33,580,513</td>
</tr>
</tbody>
</table>


From table 4.5 above, it is noticed that in the fiscal year 2019/20, the TRA managed to collect only 1.23 percent of GDP value generated from agriculture activities. In many cases, low levels of collection from agricultural activities are justified, as a large number of farmers in Tanzania operate at the subsistence level. Nevertheless, the contribution of this sector to Country GDP cannot be overlooked with the significant portions of Untapped GDP Value Generated by Agriculture Activities.

However, to increase revenue collection from agriculture related activities, there is a need to develop business strategies that are aimed at promoting high levels of voluntary compliance and enhancing risk management techniques through enforcement measures as per our tax laws.

This finding aligns with that of Bogetić et al. (2021), which stresses that the share of agriculture in GDP is considered to be inversely correlated with revenue potential, especially if it is dominated by a large number of subsistence farmers, who are regarded as a hard-to-tax group, as highlighted by Gupta (2007) and Le et al. (2008).

CONCLUSION

Taxation is an essential fiscal policy tool for mobilising resources to finance public spending. A gap between the ever-growing agricultural sector and insignificant tax revenue has been a thorn in the back of many developing countries. The challenge to raise tax revenue from the agriculture sector in Tanzania is of age, given the kind of struggles the government is in and the need to bring a significant number of taxpayers from the agriculture sector into the tax net.

Therefore, this study reveals significant untapped revenue potentials within Tanzania's agriculture sector. Through comprehensive analysis, a significant number of unregistered taxpayers from the agriculture sector were identified as the cause of the poor performance of the sector in tax revenue, emphasising the need for modernising agricultural techniques to transform farmers' performance from the subsistence level to agribusiness (major driver of revenue potential).
economic development) so that they can meet the tax law requirements, and improve taxpayer registration systems. Moreover, compared to the volume of potential taxpayers engaged in the sector, it was revealed that penetration is still very low and it accounts only about 0.11 percent of all potential taxpayers in the sector and hence a big potential for expanding TRA tax base.

In order to increase revenue collection from agriculture related activities, the study recommends a need to develop business strategies that are aimed at promoting high levels of voluntary compliance and enhancing risk management techniques through enforcement measures as per our tax laws.

REFERENCES


Albiman, M. M. and Hemedb M, I (2022), The Determinants of Tax Revenues among EAC members, African Tax and Customs Review; ISSN (online) 2664-9535 (print) 2664-9527


East Africa Revenue Authorities Regional Comparative Report and Ministry of Economics and Finance of Rwanda FY 2022/23


KiPPRA, (2024), Kenya Agricultural Withholding Tax, Preliminary RIAPA Analysis, Kenya Institute for Public Policy Research and Analysis, International Food Policy Research Institute


Wilson, G. W., and Waiswa, R., (2021), Taxing Agricultural Income in the Global South: Revisiting Uganda’s National Debate, ICTD