**Some Comments on the COMESA/SADC/SACU Value Chain Study Commissioned by the Tobacco Institute of Southern Africa (TISA).**

**By Grieve Chelwa[[1]](#footnote-1)**

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1. **Introduction and Context**

In late October 2012, a study conducted by NKC Independent Economists was released that attempts to measure the primary elements of the tobacco value chain in 15 African countries that are part of the COMESA/SADC/SACU regional blocs[[2]](#footnote-2). The study was commissioned by the Tobacco Institute of Southern Africa (TISA), a body representing the tobacco industry in the region. The study’s release coincides with the 5th Conference of Parties (COP 5) in South Korea and is most likely meant to influence deliberations around Articles 17 and 18 of the Framework Convention on Tobacco Control (FCTC). Articles 17 and 18 speak to issues of alternative livelihoods and the protection of the health of workers engaged in the growing and processing of tobacco. The aim of this short write-up is to critically engage with some of the findings of the TISA study as well as to question the methods used by the study.

Some of the study’s main findings are:

* The tobacco industry (farming, processing and selling) provides employment to a total of 4.4 million people that support a total of 24 million dependents in the 15 countries covered.
* Total taxes collected (VAT and Excise taxes) where a total of USD5.6 billion in 2011 for the 15 countries.
* Total value of trade (imports and exports) was about USD3 billion for the 15 countries covered.
* Total value of the tobacco value chain (raw tobacco production, exports, imports, taxes) was estimated at USD10 billion (see section 2.4.).

In what follows, I interrogate these findings and the methods in closer detail.

1. **General Comments**
	1. Page 9 lists the data sources used in the study. Apart from consulting reputable data sources such as the IMF, World Bank and FAO for macro variables (which they mostly get right, see 2.5 below), other variables more pertinent to answering the research question seem to have come from organizations with an interest in the continued survival of the tobacco industry. Some of the other data sources listed include International Tobacco Growers Association (ITGA), Tobacco Institute of Southern Africa, Alliance One (a tobacco merchant), British American Tobacco (BAT), Japan Tobacco International and Universal Leaf among others. Growers associations were also consulted. It is good practise to reference, in full, a particular data source (and to provide internet hyperlinks where possible) so that others may interrogate the methods and assumptions underlying a particular estimate. This is not done in this study and it therefore casts doubt on the validity of the figures quoted in the report. This is especially so for non-publicly available estimates such as employment numbers, number of farmers, and so on.

* 1. The study reports on page 1 that there are a total of 296,890 establishments (wholesale, formal retail, informal retail) selling finished tobacco products in the 15 countries covered. This number is reported without any further commentary but the implied conclusion is that these establishments rely on selling tobacco products and failure to do so would jeopardize their financial position. But these establishments sell other fast moving consumer goods (bread, milk, eggs, etc…) alongside tobacco products and it is a stretch to imply that 296,000 entities would cease to exist if prevented from selling tobacco. In any case, Warner (2000)[[3]](#footnote-3) argues that the money saved from not buying finished tobacco products would be spent on something else (additional bread, milk, eggs, etc…) which would generate extra employment for those genuinely at risk of losing their livelihoods.
	2. The study reports that there are 1.2 million small-scale tobacco farmers, employing 3.9 million people in the region. A total of 18 million are in turn dependent on the farmers and their employees for their livelihoods. Further, the study reports that the value of raw tobacco produced in 2011 was USD1.2 billion. This data comes from only 9 out of 15 countries: Angola did not report any data while Egypt and the BLNS countries had a “not applicable” entry against their names[[4]](#footnote-4). Do these numbers represent a significant proportion of each country’s total agricultural employment and is the income for each person reliant on tobacco agriculture significant? To answer this question, I obtained data on total agricultural employment from the Food and Agriculture Organization’s online statistics database, FAOSTAT[[5]](#footnote-5) and information on Gross Domestic Product per capita, in 2011 US dollars, from the IMF’s World Economic Outlook database. The numbers of small-scale tobacco farmers, associated employment levels, number of dependents and production values come from the TISA study. The results of this analysis are contained in Table 1. From the table, one sees that on average, tobacco employment constitutes 2.5% of total agricultural employment in the 9 countries reporting. With the exception of Malawi (at about 20%) and Zimbabwe (at 17%), the contribution of tobacco employment to overall agriculture employment is less than 10%[[6]](#footnote-6). As a matter of fact, excluding the two outliers would bring the average contribution of tobacco employment down to 0.93%.

As far as incomes are concerned, each person (farmer, employee and dependent) reliant on tobacco farming obtained an income of USD56 on average in 2011[[7]](#footnote-7). This represents only 10% of the region’s average GDP per capita. Stated differently, the income of the average citizen in the COMESA/SADC/SACU region is ten times bigger than the income of the average person reliant on tobacco for a living within the same region. Stated this way, it does not seem that tobacco farming is as valuable as stated in the report. Further, an annual income of USD56 per person may not be sufficient to purchase food and other daily necessities. It is, therefore, quite likely that the income is supplemented by either growing one’s own food or engaging in other economic activities. This further diminishes the economic importance of tobacco farming.

Lastly on this point, the study’s presumption is that 1.2 million small-scale farmers (alongside their employees and dependents) would be rendered destitute if they could not sell raw tobacco anymore. This is unlikely to be the case. As Warner (2000)[[8]](#footnote-8) has argued, money not spent on buying tobacco (both raw and manufactured) would be spent on something else, either in agriculture or elsewhere. This would create additional employment for those genuinely at risk of losing their livelihoods.

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|  | **Ethiopia** | **Kenya** | **Malawi** | **Mozambique** | **S. Africa** | **Tanzania** | **Uganda** | **Zambia** | **Zimbabwe** | **Total** |
| **Total Agriculture Employment** | 65 076 000 | 29 163 000 | 11 123 000 | 18 121 000 | 4 762 000 | 33 615 000 | 25 139 000 | 8 439 000 | 7 098 000 | **202 536 000** |
| **Tobacco Farmers** | 3 500 | 35 000 | 750 000 | 112 000 | 177 | 116 010 | 75 000 | 22 500 | 65 600 | **1 179 787** |
| **Tobacco farm employment** | 3 500 | 70 000 | 1 400 600 | 550 400 | 9 904 | 116 010 | 150 000 | 450 000 | 1 135 000 | **3 885 414** |
| **Number of employees per farmer** | 1 | 2 | 2 | 5 | 56 | 1 | 2 | 20 | 17 | **3** |
| **Tobacco production value per farmer + employees + dependents (USD)** | n/a | 80 | 40 | 23 | 1 198 | 312 | 79 | 45 | 52 | **56** |
| **GDP per capital (USD) in 2011 current prices[[9]](#footnote-9)** | n/a | 850 | 351 | 582 | 8 066 | 553 | 477 | 1 413 | 741 | **592** |
| **% of tobacco farmers in total agriculture population** | 0.01% | 0.12% | 6.74% | 0.62% | 0.01% | 0.35% | 0.30% | 0.27% | 0.92% | **0.58%** |
| **% of tobacco farm employment in total agriculture population** | 0.01% | 0.24% | 12.59% | 3.04% | 0.21% | 0.35% | 0.60% | 5.33% | 15.99% | **1.92%** |

Table 1: Table 1: Total Agriculture Population, number of tobacco farmers, tobacco farm employment, value of production per farmer and GDP per capita in 9 COMESA/SACU/SADC countries

*Sources: Total Agriculture Population is taken from the Food and Agriculture Organization FAOSTAT available at* [*www.faostat.fao.org*](http://www.faostat.fao.org)*; Number of tobacco farmers, tobacco farm employment, value of tobacco production taken from the TISA study; GDP per capita from the IMF’s World Economic Outlook database*

* 1. The study commits a couple of methodological errors in arriving at what it calls the Tobacco Value Chain Total Value (TVCTV) for the 15 countries considered. As stated earlier, the value of this amount is estimated at USD10 billion. A footnote defines this number as the summation of the value of raw tobacco production, value of total exports, value of total imports and taxes paid. In adding all these numbers together, the authors are either guilty of double counting or adding “apples” to “oranges”. For instance, adding production value at the farm gate to tobacco exports of the *same* output is double counting. An example: if farm output is valued at $10mn and a merchant buys this output from a farmer at $10mn and exports it for $15mn, then it is not really the case that the economy is better off by a full $25mn. But this is exactly what the study does. Further, it is not really clear that imports should enter positively when computing total value (imports are purchased from foreign producers). In addition, Kenya’s exports are Zambia’s imports and one is double counting when adding up these figures. It is quite clear that the study added all these items together to obtain the Tobacco Value Chain Total Value (refer to the table on page 1 of the TISA study). The USD10 billion estimate is likely to have been overstated.

Further, tobacco tax revenues are not at risk of declining (or disappearing) as countries try to reduce tobacco consumption through tax measures. The consensus in the economics literature is that tobacco is price inelastic in the sense that demand reduces less than proportionately to an increase in price. Therefore, excise tax hikes can only serve to increase the revenue collected by governments from tobacco[[10]](#footnote-10). Stated this way, the USD5.6 billion excise revenue reported in the TISA study can only grow with an increase in tobacco taxes.

* 1. It seems that the study has correctly reported the usual macro variables (i.e. percent of Agricultural GDP due to tobacco, area under cultivation, production in tonnes, value of exports, imports etc…), if only because these statistics are easier to cross-check against reputable on-line databases. But the fallacy is in the way these figures are added together in quantifying the value chain (see point 2.4 above).
1. **Conclusion**

This short write-up has highlighted some of the methodological shortcomings in the TISA study released at the end of October 2012. Further, using the TISA study’s own-estimates, I have shown that the tobacco farming sector is not as important from both an agricultural employment and income perspective as the study makes it out to be. In addition, the value ascribed to the tobacco value chain is likely to have been overstated if one accounts for double counting.

1. The author is a PhD student in Economics at the University of Cape Town currently writing his dissertation on the Economics of Tobacco Control in Zambia. He can be reached at grievechelwa@gmail.com. He is grateful to Corné van Walbeek, Nicole Vellios, Peter Ucko, Hana Ross and Yussuf Saloojee for providing comments on earlier versions of the document. [↑](#footnote-ref-1)
2. The study can be downloaded here: <http://www.tobaccosa.co.za/docs/NKC-Tobacco_Value_Chain_Report-October_2012.pdf>. The countries covered are Angola, Botswana, Egypt, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. [↑](#footnote-ref-2)
3. Warner, K, 2000. The economics of tobacco: myths and realities. Tobacco Control, volume 9: 78-89. [↑](#footnote-ref-3)
4. BLNS refers to Botswana, Lesotho, Namibia and Swaziland. These countries are often grouped together in this way in most studies because of their small population sizes and degree of similarity. [↑](#footnote-ref-4)
5. [*www.faostat.fao.org*](http://www.faostat.fao.org) [↑](#footnote-ref-5)
6. These percentages are obtained by adding together the number of small-scale farmers with the number of tobacco farm employees and dividing the resulting sum by total agricultural employment. [↑](#footnote-ref-6)
7. Obtained by dividing the total value of tobacco production by the total number of people reliant on tobacco for their livelihoods (farmers, employees and dependents). All numbers taken from the TISA study. [↑](#footnote-ref-7)
8. See footnote 3 for the full reference to Warner (2000). [↑](#footnote-ref-8)
9. The GDP per capita and tobacco production values are both in 2011 prices and can therefore be compared against each other. [↑](#footnote-ref-9)
10. See Van Walbeek, C, 2010. A simulation model to predict the fiscal and public health impact of a change in cigarette taxes. Tobacco Control, 19: 31 – 36 [↑](#footnote-ref-10)