

## Distributional Impacts of Tobacco Cultivation in Malawi

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### Key Messages

- This brief investigates the distributional impacts of smallholder tobacco cultivation in Malawi between 2009/10 and 2018/19.
- Households who grew tobacco during that time period were wealthier than the rest of the population
- Households in the bottom asset quartile increased tobacco yields by 62% over this time period.
- Biggest winners were those in the top asset quartile. They increased area planted by 41% and yields by 49% on average.
- It will be very difficult and costly to move the wealthiest of the remaining 5% of smallholders out of tobacco cultivation.
- May be potential to move those who are in the poorest 50% of the asset distribution that still grow tobacco if better livelihood opportunities can be found for them.

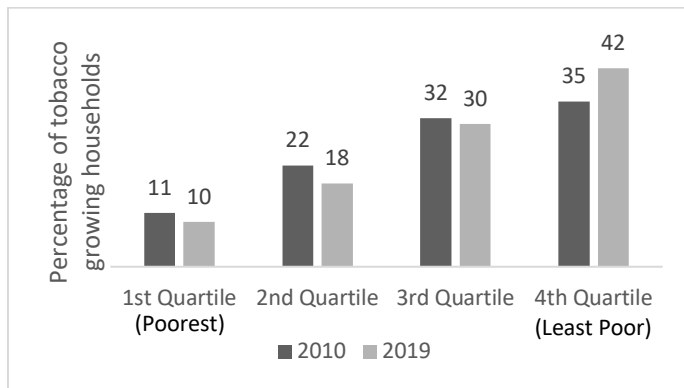
### Introduction

Malawi is arguably the world's most tobacco dependent economy. Sales of the crop account for 50% of the nation's total export value.<sup>1</sup> One of the unique features of Malawian tobacco is that smallholder farmers with less than one hectare are the main producers, cultivating the crop as their primary source of income.<sup>2</sup> Recent research indicates that the percentage of smallholders growing tobacco declined from 16% of the population in 2009/10 to 5% in 2018/19.<sup>3</sup> This decline followed the global trend in tobacco prices, which peaked in 2009/10, but retreated to their longer run average by 2018/19. In addition, the farmers who remained in tobacco cultivation in 2018/19 were relatively more productive than those who dropped out of production. Those still farming tobacco by 2018/19 were planting more area per household to the crop and achieving higher yields than those who grew tobacco in 2009/10.<sup>3</sup> However, questions remain about the distributional impacts of this shift in tobacco cultivation. Essentially, who benefited the most from tobacco

cultivation and did that change over time? Is tobacco cultivation relatively pro-poor, benefiting limited resource farmers or are the gains achieved by the relatively rich tobacco cultivating smallholders. The present policy brief addresses these questions by analyzing the impacts of the shifting demographics in tobacco cultivation between 2009/10 and 2018/19 using the nationally representative Integrated Household Survey (IHS). The IHS is a nationally representative cross-section of Malawian smallholders. In total 12,261 households were surveyed in 2009/10 and 11,434 were surveyed in 2018/19. Of these 1,335 households planted tobacco in 2009/10 and 440 households planted the crop in 2018/19.

Figure 1 shows the relative position of tobacco farmers in terms of assets among the entire population of smallholders. First, the figure reveals tobacco farmers skewed wealthier than the general smallholder population in Malawi. For example, if the distribution of tobacco farmers mirrored the overall farmer population, each of these bars would be 25%. However, only 11% of tobacco farmers

**Figure 1: Position of Tobacco Smallholders in Wealth Distribution in 2010 & 2019**



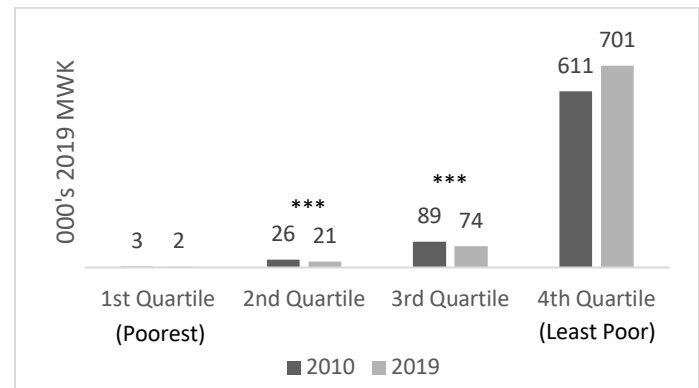
Source: World Bank Integrated Household Survey (IHS).  
 Notes: Quartiles constructed from asset and livestock-based wealth in all households in the corresponding year. The MWK cut points used for asset wealth quartile calculation in 2010 are as follows: 8,000 = 25<sup>th</sup> percentile; 44,000 = 50<sup>th</sup> percentile; 149,000 = 75<sup>th</sup> percentile. Similarly, the cut points for 2019 quartile calculation are as follows: 6,000 = 25<sup>th</sup> percentile; 35,000 = 50<sup>th</sup> percentile; 138,000 = 75<sup>th</sup> percentile. 745 MWK = USD 1.00 in 2019.

were in the lowest income quartile in 2009/10, 22% in the 2<sup>nd</sup> quartile, 32% in the 3<sup>rd</sup> quartile and 42% in the top quartile. Second, tobacco farmers got relatively wealthier over time as their share in the bottom three quartiles declined between 2009/10 and 2018/19, but increased by seven percentage points in the top quartile during that time from 35% to 42%.

Building on Figure 1, Figure 2 shows the real asset wealth in '000 2019 Malawi Kwacha (MWK) for tobacco cultivating households in 2009/10 and 2018/19. The quartiles are based on the asset wealth of all the households in the corresponding years.

Figure 2 reveals the richest asset quartile of tobacco growing households was much richer than the other quartiles. Second, those in the poorest asset quartile and the richest quartile in 2009/10 did not experience a significant change in asset wealth on average over the 10-year period. At the same time average asset wealth declined significantly for those tobacco cultivating households who were in the second quartile and

**Figure 2: Comparison of Asset Wealth of Tobacco Farmers in 2010 & 2019.**



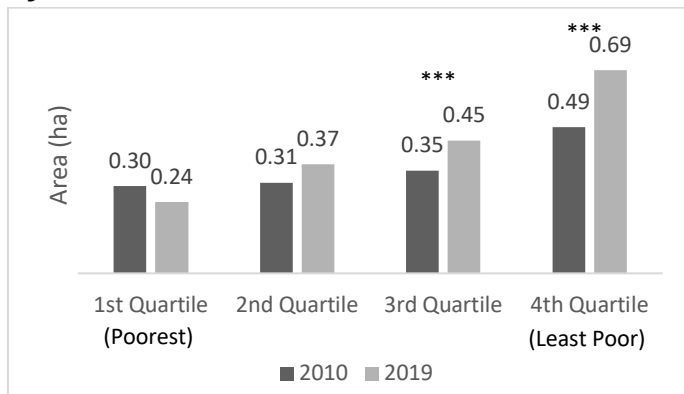
Source: World Bank Integrated Household Survey (IHS).  
 Note: Quartiles constructed from asset and livestock-based wealth in all households in the corresponding year. 745 MWK = USD 1.00 in 2019; \*\*\* denotes values within a quartile are different from year-to-year at the 1% significance level; \*\* and \* denote significant difference in values at 5% level and 10% level respectively.

third quartiles.

Figure 3 shows the area dedicated to tobacco cultivation in 2009/10 and 2018/19 amongst tobacco growing households across the asset distribution. The results show that area dedicated to tobacco cultivation increased significantly for those in the top two asset quartiles. Those in the third quartile increased average area dedicated to tobacco 29% from 0.35 ha in 2009/10 to 0.45 ha in 2018/19. At the same time those in the top quartile increased area cultivated 41%, from 0.49 hectares in 2009/10 to 0.69 ha in 2018/19. Area dedicated to tobacco remained relatively constant for those in the lowest two quartiles during this period.

Figure 4 presents tobacco yields in 2009/10 and 2018/19 for those who grew tobacco by asset quartile. Tobacco yields increased on average for growers in all four quartiles, but the increases were statistically different for those in quartiles 1, 3, and 4. Average yields increased by 62% for those in the bottom quartile, by 22% for those in quartile 3 and by 49% for those in quartile 4.

**Figure 3: Area Under Tobacco Cultivation by Tobacco Farmers in 2010 & 2019.**



Source: World Bank Integrated Household Survey (IHS). Note: Quartiles constructed from asset and livestock-based wealth in all households in the corresponding year; \*\*\* denotes values are different at the 1% significance level. Similarly, \*\* and \* denote significant difference in values at 5% level and 10% level respectively.

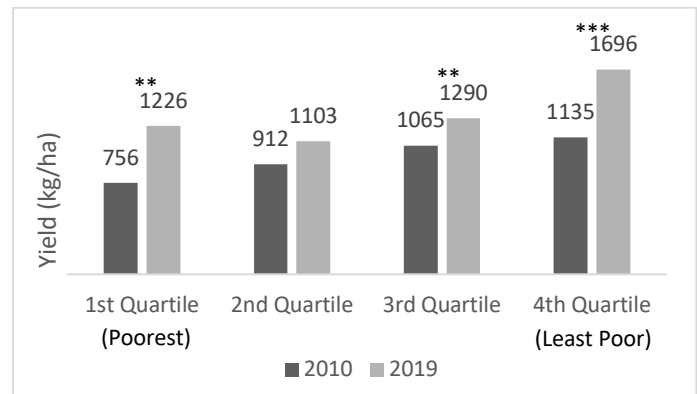
Figure 5 shows the gross revenue from tobacco cultivation in 2009/10 and 2018/19 for tobacco growing households across the asset distribution. The results show that revenue from tobacco cultivation increased significantly only for those in the highest quartile. The tobacco growers in quartile 4 experienced a 49% increase in their tobacco revenue between 2009/10 and 2018/19. Gross revenue from tobacco cultivation for those in quartile 1, 2, and 3 remained relatively constant.

**Conclusions**

This policy note highlighted the distributional implications of tobacco cultivation in Malawi among smallholder farm households who grew the crop in 2009/10 and 2018/19. The results indicate that those who grew tobacco during that time period were wealthier than the rest of the population. The distributional impacts of tobacco cultivation, however, are mixed.

Tobacco farmers in the bottom and top asset quartiles did not increase asset wealth significantly, while those in the middle two asset quartiles experienced a decline in asset wealth. The households in the bottom quartile who grew tobacco did not increase average area planted to

**Figure 4: Tobacco yield for tobacco farmers in 2010 & 2019.**



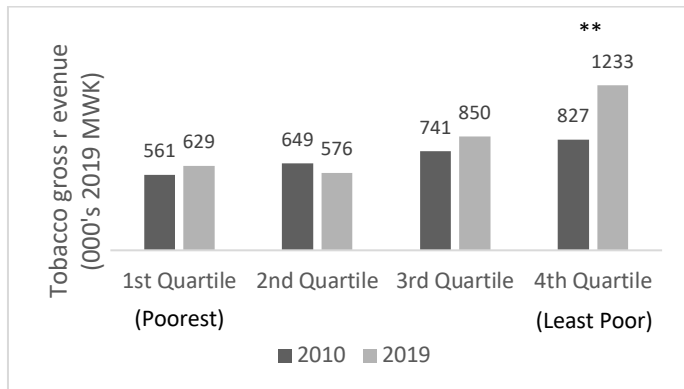
Source: World Bank Integrated Household Survey (IHS). Note: Quartiles constructed from asset and livestock based wealth in all households in the corresponding year; \*\*\* denotes values are different at the 1% significance level. Similarly, \*\* and \* denote significant difference in values at 5% level and 10% level respectively.

tobacco between 2009/10 and 2018/19, but increased tobacco yields by 62% over this time period. This increase in productivity seems to have offset the effect from decrease in tobacco price from its peak in 2009 leading to relatively constant tobacco revenue between 2009/10 and 2018/19.

Perhaps not surprisingly the biggest gainers in tobacco cultivation were those who were in the richest asset quartile. Though their average assets did not increase significantly over the 10 years, it was already much higher than the other quartiles, and they increased average tobacco area cultivated by 41% and average yields by 49%. Furthermore, their average gross revenue from tobacco cultivation increased by 49% over this time period.

These findings indicate that it will be very difficult and costly to move the wealthiest of the remaining 5% of smallholders out of tobacco cultivation. However, there may be potential to move those who are in the poorest 40% of the asset distribution that still grow tobacco out if better livelihood opportunities can be found for them. It is possible for smallholders in the bottom of the asset

**Figure 5: Gross Revenue from Tobacco Cultivation for Tobacco Farmers in 2010 & 2019.**



Source: World Bank Integrated Household Survey (IHS).

Note: Quartiles constructed from asset and livestock-based wealth in all households in the corresponding year; \*\*\* denotes values are different at the 1% significance level; \*\* and \* denote significant difference in values at 5% level and 10% level respectively.

distribution to switch out of tobacco into other cash crops like groundnuts, soyabean and pigeon peas. However, the productivity and market access opportunities for these crops needs to improve for them to become a competitive alternative for the smallholders who continue to cultivate tobacco.

*This Policy Brief is not for citation. For additional resources and to cite this work, please refer to:*

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- 1-United Nations. 2017. UN Comtrade database. New York, USA. <https://comtrade.un.org/data>.
- 2-Otañez, M.G., Mamudu, H., and Glantz, S.A. 2007. Global leaf companies control the tobacco market in Malawi. *Tobacco Control*, 16(4), pp. 261.
- 3-Shah, M., J. Ricker-Gilbert and M.G. Khonje. 2021. Assessing Alternatives to Tobacco Farming for Smallholders in Malawi. Policy Brief #10. MwAPATA Institute, Lilongwe, Malawi.



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