

Booming Zimbabwe tobacco sector, massive deforestation: causes for concern

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There has been a sharp increase in tobacco production in Zimbabwe over the last four years, mainly from smallholder farmers who were the beneficiaries of the fast-track land reform programme in the early 2000s.⁽²⁾ This increased production has been happening against the backdrop of massive deforestation in the countryside, which is a cause for concern.



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Is the country prepared to face the inherent environmental challenges of embracing the mainstreaming of previously disadvantaged people into the tobacco sector?

This CAI paper examines both the nature of the smallholder tobacco production sector and the state of deforestation in Zimbabwe, and establishes the connection between the two. The paper goes on to discuss efforts that have been made to stem the environmental problem of deforestation associated with tobacco farming.

Smallholder tobacco production in Zimbabwe

The tobacco sector, previously dominated by the white, large scale commercial farmers, has historically made a critical contribution to the country's gross domestic product (GDP). There has been an increase in the number of new smallholder farmers joining the tobacco-growing sector in Zimbabwe. For instance, in comparison with the 2012 growing season, the number of tobacco growers registered in the 2013 growing season increased by 22,000 to 64,775.⁽³⁾ More than 80% of these registered tobacco farmers come from the smallholder sector, where each farmer grows an average of 1.3 hectares.⁽⁴⁾ The majority of these smallholder tobacco farmers are beneficiaries of the fast-track land reform programme that was initiated in the year 2000,⁽⁵⁾ with many women and youths having been empowered in the process.⁽⁶⁾ In 2012, Zimbabwe received US\$ 771 million from tobacco exports at an average price of US\$ 5.94 per kilogram (kg), with smallholder farmers having contributed massively to that production.⁽⁷⁾

Most smallholder farmers are in contract farming arrangements,⁽⁸⁾ where they are attracted by convenient farm inputs.⁽⁹⁾ In the 2013 growing season, about 77,910 hectares of land were put under tobacco production compared to the 56,377 hectares of land in the 2012 season, showing a 38% increase.⁽¹⁰⁾ Furthermore, in 2013 tobacco production is predicted to be around 170 million kg, in contrast to the 144.5 million kg for the 2012 growing season⁽¹¹⁾ - far higher than the 49 million kg of the 2008 season.⁽¹²⁾

There is a convergence of factors that have contributed to this surge in smallholder tobacco production. The issue of land as a means of production is the most critical. The fast-track land reform programme empowered a number of people who were previously marginalised by giving them access to land. In addition, with the advent of the government of national unity came the use of a multi-currency system, setting aside the local currency from 2009 onwards. This meant that farmers would directly earn hard currency for their produce, and this helped to reduce losses attributed to foreign currency regulations - a situation that prevailed in the preceding hyper-inflation period. The firming of international tobacco prices in particular buoyed the sector. In previous seasons, prices had dropped as low as US\$ 0.50 per kg, subsequently discouraging farmers; of late, however, prices have increased and now range between US\$ 2 and US\$ 5 per kilogram.⁽¹³⁾ This attracted so-called new farmers to take risks and venture into the smallholder tobacco farming sector, even without adequate knowledge, skills and other necessary resources.

Deforestation in Zimbabwe

Deforestation has always been an endemic problem in Zimbabwe, since a larger proportion of its population is rural and dependent on firewood as a sole source of household energy.⁽¹⁴⁾ As far back as 1997, the United Nations Development Programme (UNDP) reported that deforestation was a major problem facing Zimbabwe, where between "70,000 to 100,000 ha of forest cover [was] declining at a rate of 1.5% per year."⁽¹⁵⁾ As a result, from 1990 to 2005, Zimbabwe endured a decline of about 21% in its forest cover, which amounts to approximately 312,900 hectares.⁽¹⁶⁾

Back-to-back power outages countrywide have caused people to resort to the use of firewood as an easy alternative source of energy.⁽¹⁷⁾ This has in turn created a market for firewood - particularly in urban areas. This high demand for firewood has driven the rate and scale of deforestation in the countryside, including in newly resettled areas which were inaccessible to the majority before the wave of land reform beginning in 2000.

The most unfortunate part is that indigenous trees take a long time to grow to maturity - between 75 and 150 years - unlike the exotic eucalyptus trees. Thus, when indigenous trees are cut at ground level, as is usually the case, they are lost forever.⁽¹⁸⁾ Tobacco farming and veld fires have also been blamed for driving the process of deforestation.⁽¹⁹⁾ The connection between tobacco farming and deforestation of indigenous forests is explained below.

The smallholder tobacco-deforestation nexus

The top three global producers of flue-cured tobacco are Brazil, the United States of America and Zimbabwe.⁽²⁰⁾ When tobacco leaves are picked from the field, they have to undergo an energy-intensive drying process, also known as curing, in a specialised barn where heated air is circulated to extract moisture from the tobacco leaves.⁽²¹⁾ Coal or wood is used to fuel these barns. The drying process takes about seven days to adequately cure the tobacco.⁽²²⁾ Wood is less efficient than coal and therefore the curing process demands an excessive amount of firewood.

The majority of smallholder tobacco farmers rely solely on firewood to cure their tobacco.⁽²³⁾ Coal and electricity, and the associated infrastructure, are beyond the reach of smallholder farmers.⁽²⁴⁾ Thus the farmers are left with no option other than indigenous forests.⁽²⁵⁾ In 2011, an estimated 46,000 hectares of forest had been cleared, and about 1.38 million cubic metres of firewood burnt to cure part of a 127 million kg tobacco output.⁽²⁶⁾ The newly resettled farmers use mainly firewood to cure their tobacco instead of the coal burners used previously, and so efficiencies that had been achieved then were lost.⁽²⁷⁾ Access to land through the land reform programme has opened access to other resources for the beneficiaries; for instance, the newly resettled farmers now had indigenous forests at their disposal.

According to the International Tobacco Growers Association (ITGA), Specific Fuel Consumption (SFC) refers to "kilograms of wood used per one kilogram of cured tobacco, in cubic metres per tonne of tobacco produced, and cubic metres per farm."⁽²⁸⁾ The firewood use of flue ranges from an SFC as low as 5 kg and as high as 130 kg.⁽²⁹⁾ A smallholder farmer produces up to 1,400 kg of tobacco per hectare, needing seven tonnes of firewood to cure his/her crop.⁽³⁰⁾ Cumulatively, these tobacco farmers chop about 5.3 million trees each year to support their production in Zimbabwe.

The connection between tobacco growing and deforestation is not a phenomenon confined to Zimbabwe only. In Tanzania, where tobacco farming depends on shifting cultivation and high supply of firewood to cure the crop, there has been a noticeable clearance of miombo woodlands.⁽³¹⁾ In southern Africa, almost 200,000 hectares of woodlands are cleared to prop up the tobacco farming sector.⁽³²⁾ This loss accounts for 12% of total loss of woodlands to deforestation in the region.⁽³³⁾ In 1977, the United Nations Environmental Programme (UNEP) claimed that fuel wood scarcity, land degradation and deforestation in developing countries can be linked to tobacco farming.⁽³⁴⁾ About 75% of tobacco produced in continental Africa comes from Tanzania, Malawi and Zimbabwe, with Zimbabwe producing the bulk of flue-cured tobacco.⁽³⁵⁾

Efforts to stem deforestation

The Zimbabwean Environmental Management Agency (EMA) is a statutory body tasked with the management of the environmental resources of the country. The EMA has already started to take action against people who are caught cutting down trees illegally, including those doing so for the purpose of curing tobacco.⁽³⁶⁾ The indiscriminate and illegal cutting down of trees is a criminal offence which attracts a penalty of up to US\$ 300 per tree.⁽³⁷⁾ The Government of Zimbabwe implemented a draft statutory instrument that requires tobacco farmers to have a woodlot from which they would draw firewood to use for curing their crop.⁽³⁸⁾ The Tobacco Industry and Marketing Board (TIMB) has since started to supply registered growers with Eucalyptus seeds under this initiative.⁽³⁹⁾ Growing of the exotic trees is advantageous in that they are fast growing and renewable. However, the trees that are being destroyed are not being matched by these initiatives.⁽⁴⁰⁾

The post-independence Zimbabwe Government introduced the rural afforestation programme managed by the Forestry Commission, another statutory body.⁽⁴¹⁾ For instance, in 2011 a target of planting 10 million trees were achieved in a massive re-planting programme, but there are doubts as to how many of these trees survived subsequent veld fires, whose perpetrators usually go undetected.⁽⁴²⁾ Following the 1997 UNDP report, the government devised the National Strategy which sought, among other things, to bring about reforestation, to increase agro-forestry and to encourage non-consumptive use of forests. Despite all these measures, the country continued to lose forest cover at an accelerated rate between 2005 and 2012.⁽⁴³⁾

The multinational conglomerate British American Tobacco (BAT) introduced what is called a rocket barn in an effort to contribute towards reducing deforestation associated with tobacco curing.⁽⁴⁴⁾ A rocket barn decreases wood use while improving the amount and quality of tobacco cured, since it is 50% more efficient than the conventional barn, thus creating benefits both to the producer and the environment.⁽⁴⁵⁾ In addition, the rocket barn is easy and affordable to build or to retrofit an already existing conventional barn.⁽⁴⁶⁾ The rocket barn makes use of timber off-cuts that can be obtained from commercial forest concerns.⁽⁴⁷⁾ This goes a long way to spare huge and mature indigenous trees from being cut for the purposes of curing tobacco.

As part of the efforts to stem deforestation, there is also need to achieve the energy efficiency levels that had been attained by the white commercial farmers who used mainly coal and had started to use electricity in the curing of tobacco. Two kilograms of coal are needed for each kilogram of cured tobacco leaf and this can be improved to as low as 1.2 kilograms of coal per kilogram of cured leaf.⁽⁴⁸⁾ This improvement is possible if there is implementation of other measures such as harvesting only ripe tobacco (which requires a shorter curing period), and having well-insulated barn walls, roofs and floors.⁽⁴⁹⁾ Farmers could also switch to growing burley tobacco which does not have the high fuel demands associated with flue-cured tobacco.⁽⁵⁰⁾

Is there a conspiracy against Zimbabwe?

In 2005, the United Nations formulated a global treaty, the Framework Convention on Tobacco Control, rallying all countries to reduce tobacco production and consumption, especially among children.⁽⁵¹⁾ In addition, environmental activists have been lobbying international buyers against procuring tobacco from countries where child labour, infringement on women's rights, deforestation, and use of harmful chemicals have been reported.⁽⁵²⁾

Tobacco growers are under pressure to produce the crop sustainably while the World Health Organisation is working towards a total ban on tobacco ⁽⁵³⁾ - an effort that has not been received well among tobacco growers and authorities in Zimbabwe. For a long time the tobacco sector has been a major contributor to the country's economy and a recent rebound of the tobacco industry could be regarded as a contributing towards improving the standard of living for a large group of people who were previously disadvantaged by lack of access to land. However, the new requirements (that is, the need to stop child labour, infringement on women's rights, deforestation, and use of harmful chemicals) are being seen as a conspiracy against Zimbabwe for having implemented the land reform programme, which is now starting to pay dividends. The Zimbabwe Farmers Union second Vice President, Berean Mukwende, argued that the new requirements would not harm the industry as he said that "most of the children in Zimbabwe go to school and cannot be employed at farms. The national employment council for agriculture clearly states that farmers should not employ minors and our farmers have been adhering to that including providing protective clothing, observing normal working hours, and using approved chemicals."⁽⁵⁴⁾

Concluding remarks

Smallholder tobacco production in Zimbabwe has been increasing over the last four years on the back of favourable international prices. Zimbabwe is one of the major producers of flue-cured tobacco both in the Southern African Development Community (SADC) region and in the world. Flue-cured tobacco is an energy-intensive crop, amongst other onerous requirements for its production. The majority of smallholder tobacco producers are beneficiaries of the fast-track land reform programme that was started in the early 2000s but do not have adequate resources to produce the crop as sustainably as possible. Thus, the country is experiencing an unprecedented level of deforestation associated with tobacco production.

The level of deforestation will, in the long run, impact on the very survival of the fledging sector. The pressure to produce the crop sustainably has been viewed by the tobacco growers as an indictment on their emergence from poverty, given their previous exclusion from the sector. The government has stepped up its initiatives in order to stem the scourge of deforestation associated with tobacco farming. However, these initiatives fall far too short of the need to address the problem at hand. Thus, tobacco production itself has been seen to pose a dilemma for development, since it brings a wide range of benefits that have to be weighed against its damage to public health and the environment.⁽⁵⁵⁾ It is difficult to tell at the moment how the government envisages the development of this sector in the foreseeable future.

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