

# Southern Africa Labour and Development Research Unit



## Tracking and Tracing Tobacco Products in Kenya

*by*

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## Tracking and Tracing Tobacco Products in Kenya

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### Abstract

Although estimates of the size of the illicit cigarette market in Kenya vary, the government sees it as a problem and has been trying to address the issue since the early 2000's. Between 2003 and 2013 the Kenyan government experimented with numerous measures designed to reduce tobacco tax evasion with varying degrees of success. In the end, it decided to implement a tracking and tracing system for cigarettes (and alcohol products) and joined a small but growing number of countries addressing illicit tobacco trade via a technological solution. The introduction of the new system required a systematic approach, participation of all stakeholders, and an initial investment into infrastructure and enforcement. Preliminary results indicate that the new system, accompanied by an electronic cargo monitoring system, has reduced the size of the illicit cigarette market and substantially increased tax revenue for the Kenya Revenue Authority (KRA). The experience of Kenya highlights the importance of political will, consistency, and comprehensiveness of the system addressing tax evasion, because piecemeal measures have only short-term effects.

## **Introduction**

Throughout the 2000's Kenya has been known as the East African transit point for illicit cigarettes.(1) Kenya has also been dealing with undeclared domestic production, unaccounted-for exports, undeclared imports of raw tobacco and finished products, counterfeited products, and under-declared tax values (2, 3), all depriving the country of much needed tax revenue.

The Kenya Revenue Authority (KRA) estimated that illicit cigarette trade deprived the country of about KES 1 billion (US\$ 11.3 mil) annually in foregone taxes.(4) Another KRA estimate shows that the illicit cigarette trade cost the country more than KES 70 billion (US\$ 790 mil) in jobs, tax revenue, and investment losses.(5)

Estimates of the illicit cigarette market in Kenya vary greatly. ERC Group PLC reported that illicit cigarettes accounted for 20% of the total cigarette market in 2007, or about 1.5 billion cigarettes.(3) Euromonitor estimated a smaller, but growing illicit cigarette market: 11.3% and 13.5% of total consumption in 2006 and 2012, respectively.(1) The dominant tobacco company, British American Tobacco, claimed that illicit cigarettes accounted for 20% of the market by the end of 2011.(6)

When a 2003 audit revealed serious cigarette tax avoidance and evasion schemes, Kenyan authorities took multiple steps to address this issue.(2) This article describes these measures, their evolution over time, and their impact on the size of the illicit cigarette market and tobacco tax revenue.

## **Methods**

We reviewed data from the National Statistical Office of Kenya, published and grey literature, official government reports, online news articles, and presentations made by government officials at international conferences.

Data on size of the illicit market share came from the tobacco industry as well as market research companies such as ERC and Euromonitor.

## Results

To deal with growing concerns about the illicit cigarette market, paper tax stamps were introduced in 2003.<sup>(7)</sup> These stamps were affixed at the manufacturers' premises or, in the case of imported cigarettes, at the premises of a foreign manufacturer. Stamps had a serial number, a unique identifier for a particular type of cigarette, came in two colors for filter and non-filter cigarettes, and served as proof of payment. The manufacturers were required to submit a monthly report on the usage and stocks of these stamps. Thanks to these measures, monthly excise tax revenue increased from KES. 230 to 350 million in 2003.<sup>(4)</sup>

However, the tax stamps were easy to counterfeit or steal, and had to be counted manually, which led to inaccuracies. In addition, they could not be linked to a particular brand and quantity of production, which made industry monitoring very difficult. It soon became obvious that the stamps were inadequate for tax accounting and enforcement purposes.<sup>(7)</sup>

To address the weaknesses of the system, the Kenya Revenue Authority (KRA) proposed in 2008 to implement a track and trace system similar to the one that had just been implemented in Turkey and Brazil.<sup>(8)</sup> Given the lengthy process of selecting a track and trace system, KRA decided to implement a set of temporary measures in 2010. These involved tax stamp verification at four points in the supply chain, improved licensing controls, importer registration, and an overhaul of the accounting system to better track cigarette production. Three hundred new tax enforcement units were established <sup>(9)</sup> and they began to conduct periodic checks on production and other market surveillance activities to determine how many production lines were active, what raw materials were being used, and to compare the input material with the actual output.<sup>(7)</sup> These measures increased the cost of the tax stamp by KES 0.124 a piece - from KES 2 (US\$ 0.023) to KES 2.124 (US\$ 0.024), or by KES 66.5 million (US\$ 750,000) a year.<sup>(6)</sup> To cover these costs, KRA imposed a 2% fee on total audited revenue based on the previous year. This fee generated KES 17 billion, or US\$ 192 mil, in 2012 alone.

In 2011 Kenya introduced a single specific tax regime, which reduced tax evasion related to false declaration of number of cigarettes produced in various tax categories.<sup>(2, 10)</sup>

According to KRA's estimate, the updated tax stamp regime generated US\$ 50 million in additional cigarette excise tax revenue.(2) However, this result is likely a result of both anti-illicit trade measures and changes in the tobacco tax system.

To compliment the controls over the domestic cigarette production, KRA launched an electronic cargo monitoring system in 2010 to track cigarettes produced for export and cigarettes in transit. The cargo monitoring system involves the oversight of loading and tracking of all product removals. Export vehicles are sealed to ensure that items intended for export exit the country and the cargo reaches the intended destination before any tax remissions or refunds of the excise and VAT paid in advance are granted. The system relies on both bilateral information sharing and an electronic cargo tracking system that uses radiofrequency ID (RFID) electronic seals to secure the container or truck doors, complemented by GPS/GPRS technologies,(2) which enables sending and receiving of data through digital cellular communication about the location of the vehicle at any time.(2) This ensures that trucks keep to the designated route and reach the intended destination. Any deviation in excess of 50 meters on either side of the route or tampering with the seal generates an alert.(2) Once the truck is loaded, cargo dispatch information is sent to the relevant authority in the importing country that sends confirmation to Kenyan authorities upon receiving the imported goods.(7) The cargo monitoring system reduced the number of checkpoints, the associated staffing needs, insurance costs thanks to improved security,(2) and allows the revenue authorities to screen out companies that claim abnormally high tax refunds on exports.(4, 11)

As a result of implementing this new monitoring system, exports from Kenya to some foreign markets (e.g. Eritrea, Cote d'Ivoire, Sudan, Mali)(12) have been discontinued and some companies ceased to export tobacco products from Kenya because they could not provide evidence that their imported products had been received in the exporting country. The new regime led to the closure of three tobacco factories and seven out of ten tobacco importers due to their failure to sell/distribute only duty-paid products.(2) Additional evidence of the efficacy of the updated system was a substantial increase - up to 30% - in the legal cigarette sale near the Western border of Kenya, which was previously suspected of hosting a lively illicit cigarette market.(2) Even BAT Kenya praised government efforts in

combating illicit cigarette trade and reported a decline in the illicit cigarette market in early 2012.(13)

However, all these temporary measures resembled features of a track and trace system without the integration into a single data sharing point. KRA was aware of the system's weaknesses and, in consultation with the Kenya Private Sector Alliance and the Kenya Bureau of Standards, continued to pursue the selection of a track and trace provider.(6)

The international tender for tracking and tracing of both domestic and imported tobacco and alcohol products was finally completed in December 2012.(14) In April 2013 the KRA signed a five-year contract with SICPA, a company providing a tracking and tracing solution in several countries/states. The system was implemented in three phases among all tobacco manufacturers and importers, and allows for production counting, tracking and tracing, stock control, tax forecasting, forecasting and processing of tax stamps, and collecting other business intelligence. The first phase began in April 2013 and involved the launch of electronic digital stamps that serve as proof that both excise tax and VAT have been paid. The new stamps are affixed on each pack in such a manner that removal would make them unusable. They have overt security features for the general public (e.g., holograms, color shifting), semi-covert security features for use by stakeholders in the supply chain, covert security features (e.g., fluorescent fibers, security ink) with a unique identifier for each pack exclusively for use by the tax authority during random field verification, and forensic security features such as taggants that can be authenticated using proprietary miniature electronic readers to support prosecution.(2, 7) Thanks to these features, the new tax stamps are very difficult to counterfeit. Tobacco products designated for export are not marked, because these products are already subject to a tight electronic cargo monitoring system introduced in 2010.

The tracking and tracing system requires high-speed broadband Internet and a reliable telecommunication network covering key areas of the country in which system equipment has been installed. KRA officials are equipped with handheld devices that can swipe a hidden photo-magnetic line embedded in the stamp and transmit real-time data such as the date of issue, the producer's name, the product category, and the brand in real time to the

central KRA server. The handheld device can also be used offline for authentication of the stamp and for tracking and tracing of the stamp. This allows for quick verification of the legality of a product at any point in distribution.

Cigarette distributors and retailers have a simple device that allows for verification of all products before acceptance into their outlets. This means that retailers no longer have credible deniability and are criminally liable if they sell products that did not pay all taxes. All major supermarkets participate in the system and are connected to KRA servers.

Manufacturers are required to affix photosensitive readers (flow meters) on manufacturing lines to transmit real-time production data to KRA servers. These devices can electronically read up to 200 containers in a packing line and send data such as quantity of packs to KRA every 15 minutes. The system needs a reliable power grid with UPS equipment, which often requires the installation of backup power sources (generators and inverters). Cigarette importers purchase electronic digital stamps in Kenya and send them to their facilities abroad where they are affixed on each pack destined for Kenya.<sup>(9)</sup> As part of the new system KRA has also rolled out the iTax system for online tax payments and set up a new enforcement unit for income taxes.

The rollout of the tracking and tracing system took approximately 11 months and was finalized in March 2014. In addition to tobacco products, it also covers spirits and wine. The system is self-funding since the companies pay for the photosensitive readers installed in their facilities and are allowed to expense this cost, thus reducing their tax liability.<sup>(9)</sup> Since the corporate profit tax is 30%, the government covers 30% of the system costs.<sup>(15)</sup> The tobacco companies passed the additional cost on to consumers by raising cigarette prices.<sup>(15)</sup> Overall, the cost of the tracking and tracing system in Kenya turned out to be cheaper than the cost of the previous system relying on tax stamps without tracking and tracing.<sup>(9)</sup>

It is too early to assess the full impact of the tracking and tracing system in Kenya. However, KRA has already officially reported improved access to information, enhanced business intelligence, seizure of more than 20 million cigarettes in 2014,<sup>(9)</sup> prosecution of over 100



cases related to illicit activities, an increase in legitimate cigarette sales, and a 53% increase in excise tax revenue (both from tobacco and alcohol) between December 2013 and December 2014.(16) The KRA reports that the excise revenue on alcohol increased by 53% and 40% in the period of February–June 2014 and July–December 2014, respectively.(9, 17)

Preliminary data show reduced costs of tax compliance, faster access to tax stamps, and enhanced service delivery. Cigarette seizures are declining while tobacco excise revenue grows annually by about 20%.(9) The largest excise tax revenue increase has been recorded for imported cigarettes.(9)

## **Discussion**

The KRA is stressing the importance of consistency in implementing comprehensive controls, because the partial rollout in 2010 had only a short-term effect.(7) The agency believes that the success of the tracking and tracing system depends on the comprehensiveness of coverage, consultations with stakeholders (including the industry), business intelligence, a comprehensive licensing system for both manufactures and importers, remote producer monitoring, and engagement of a multi-disciplinary technical team that is capable of identifying and dealing with possible loopholes while paying attention to costs.(15)

It is vital to create a tight system that generates a permanent association between the product and the code/stamp, which is rendered unusable upon its first use. The enhanced tax stamps allowed the country to expand enforcement beyond the official agencies by facilitating the participation of the public (thanks to the introduction of overt security features) and retailers/distributors that bear the responsibility of carrying only legal products. This required an information campaign for the public and retailers/distributors and providing retailers/distributors with special devices to verify products' legitimacy before receiving them into their premises. In addition, the official enforcement units need to be engaged in frequent market surveillance. They benefited from being able to get final evidence of violation on the spot without the requirement of additional authentication.

The cargo tracking system with advance tax payments proved to be vital for controlling and monitoring movement of exports and transit products.

The tracking and tracing system needs to be monitored and reviewed continuously for performance to ensure robustness and stability of the system and to deal with possible mutation of tax evasion schemes. Limited human involvement in daily operations prevents errors and system manipulation. For example, production data needs to be obtained without any input from the manufacturers. Data security is an important consideration that will prevent data loss and counterfeiting.

The tracking and tracing system is not without its critics. The Anti-Counterfeiting Authority of Kenya expressed some skepticism about its long-term impact and called for continuous refining of the system along with ever-evolving technology.

The preliminary evaluation of the tracking and tracing system in Kenya indicates that it would benefit from a region-wide solution. The KRA initiated a regional dialog on this issue within the East African Community (EAC).

Another challenge is that the current legal system does not allow for penalties that are punitive enough to deter illicit trade, which stifles efforts to curb illicit cigarette trade in Kenya. Most of the laws tie fines to the value of seizures or fail to define minimum fines. Therefore, illicit traders engaging in small quantity but frequent trade can get away with minimal fines. (18)

The lack of credible estimates of the size of the illicit cigarette market, and/or its change makes it difficult to evaluate the system's performance. Existing estimates of illicit trade come from either market research companies or from the tobacco industry, but neither of them discloses the methodology used to generate these estimates.

There seems to be better data on tax revenue from alcohol compared to tobacco. This hinders the evaluation of the tracking and tracing system on the tobacco market.

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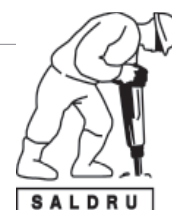
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