extension of producers; start of system implementation in all production lines in the country.

**February 2019:** Resolution No. 16 establishes a term to commercialize the remaining stock without marking.

**2019:** Resolution No. 24, with request for extension to importer, includes training of customs staff.

**March 2019:** The traceability system is started up.

**June 2019:** Stamp process begins for all imported cigarettes.

Currently, the system is installed and operating in all production lines in the country, placing traceability markings on virtually 100% of the cigarettes produced and imported. During 2019, the traceability system enabled controlling approximately 1 175 million packs: 744 million produced for national consumption, 409 million produced for export and 22 million imported yearly.

*Source: (48).*

## Box 3.9 Case study of Kenya's implementation of a tracking and tracing system

Kenya's current tracking and tracing system was preceded by a series of reforms in both tax structure and administration of excise taxes. The reforms included electronic cargo monitoring of exports, which allowed for automatic monitoring and reporting. The system appears to be highly effective because it requires less capacity and is less prone to manipulation than earlier systems. The experience of Kenya shows that a lower-middle-income country can successfully implement a sophisticated system capable of decreasing illicit trade. It also shows the importance of other measures such as strengthening enforcement, increasing cooperation and communication among different agencies and increasing penalties for noncompliance. Illicit trade, as measured by the Kenya Revenue Authority (KRA), was estimated to be around 15% of total consumption in the market during the initial reform period. After the introduction of the new system in 2015, it dropped to 5%.

Timeline of the major reforms:

**2003:** In this period, the paper tax stamps used had a unique identifier and were colour-coded to indicate the type of product. Regular compliance checks were introduced. In 2007, the cost of a stamp was 2.124 Kenyan shillings or US$ 0.023 per pack. However, the stamps were found to be easily counterfeited and could not be linked to specific brands.

**2008:** The KRA proposed a tracking and tracing system and increasing tax rates. The new system was introduced gradually.

**2010:** Enhanced security features, including ultraviolet markings, were added to the paper stamps. The stamps were to be clearly visible when packs were displayed for sale and placed so that opening a pack would destroy the stamp. The stamps were verified at four different points along the supply chain. The costs were just slightly higher than those of the previous stamps at US$ 0.024 per pack.

Licensing was introduced for domestic manufacturers, subject to annual renewal. Importers were required to register with the KRA. Licences required submission of details on the company directors, inventories and equipment, accounting systems, input-to-production ratios and brands produced. Penalties for noncompliance were increased and included up to three years in prison.

An electronic cargo tracking system was launched. Electronic seals were affixed on containers or trucks, and GPS technology was used for tracking. A bond was payable on exports to cover excise and VAT taxes. The bond was released only when the goods reached the final destination and taxes were paid.

Verification involving both countries of the business deal takes place at the borders. The electronic system provides information about the departure and arrival of the goods and the disarming of the seals. Authorities in the importing country are notified before the shipment leaves the domestic production facility. The system reduces the number of checkpoints and staff needed and generates arrival reports that can be verified with VAT refund requests.

As a result of these changes, three factories and seven of the 10 importers were shut down due to noncompliance. Exports to Côte d'Ivoire, Eritrea, Mali and Sudan stopped because companies could not provide evidence that the goods reached the final destination and taxes were paid. More than US$ 11 million in excise tax losses was recovered in 2011. The KRA estimated that illicit trade dropped to 8%.

**2013:** A contract was signed to introduce a tracking and tracing system for tobacco and alcohol, the Excisable Goods Management System, in April. The system added production counting, tracking and tracing, stock control, processing and other data collection to the existing system. Infrastructure requirements included high-speed broadband internet at production facilities, warehouses, the KRA and ports, along with reliable power or backup generators at those points. Implementation was planned in three stages:

- Stage 1 – A new electronic digital stamp with a unique identifier was introduced. It included a data matrix code plus overt markings (holograms, fluorescent fibres, a security link for KRA authentication and visible two-dimensional codes for verification and activation), semi-covert markings (UV features, fluorescent prints detectable by specialized devices, mini text printing for retailers and

distributors) and forensic taggants for use in prosecutions. The stamp also included human-readable codes for verification by short message service using the KRA web portal.

- Stage 2 – Control and monitoring systems were automated in February 2014. Manufacturers had to install photosensitive readers on production lines, with data automatically sent to the KRA in real time. Each stamp was activated and associated with a brand and package size on the line. The KRA database is automatically updated every 15 minutes.

- Stage 3 – Market surveillance began, with 83 officers given powers to seize illicit cigarettes and make arrests. The officers were equipped with hand-held devices that transmitted data to the KRA for authentication. Distributors and retailers became liable for selling products without an excise stamp and were subject to fines plus prison sentences of up to three years for noncompliance. In 2016, a smartphone application became available with which the public could authenticate cigarette packs. Importers must now buy digital stamps and send them to export facilities in other countries to be affixed. Tax liability is due at removal from a factory or at import. The electronic cargo monitoring system is still in effect.

**2016:** The Excise Duty and Tax Procedures Acts clarified new obligations and penalties.
**2017:** A new integrated customs management system was launched.

The KRA estimates that illicit trade levels are now around 5%. The current, more comprehensive digital system is cheaper than the previous paper tax stamp system. Manufacturers pay for the production monitoring system, but it counts as a business expense on corporate tax returns. In 2018, two manufacturers and 10 licensed importers were operating in Kenya.

In 2018, aggregation between the markings of packs, cartons and master cases had not yet been implemented but was expected to be forthcoming.

*Source: (36)*

## Box 3.10 Case study of the new EU tracking and tracing system, May 2019

Cigarette smuggling and other forms of illicit trade in the EU is estimated to cause a loss of €10 billion in revenue annually. In 2018, 4.2 million packs (20 sticks per pack) of illegal cigarettes were seized by customs in the EU. Illicit tobacco production was also increasing: an illegal factory in Ireland, dismantled in 2018, was capable of producing 250 000 cigarettes per hour.