



# TRACEABILITY OF HORTICULTURAL PRODUCE IN KENYA: SITUATION AND TRAJECTORY

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## WHAT IS TRACEABILITY?

Traceability means it is possible to trace food back to its origin. If consumers become ill from the food they have eaten, or food is found to contain a harmful chemical, traceability allows this food to be traced from the shop where it was purchased, to the trader who delivered it, to the factory that processed or packed it, and ultimately to the farm where it was grown. In this way, the source of the problem can be identified and corrected [1]. Traceability is considered a fundamental component of modern food safety systems.

Traceability requires the use of unique codes to identify blocks of land, individual farms, farmer groups, brokers, packers and processors. Each crate of carrots, for example, has its own unique code. By entering this code into a database, one can see on which parcels of land the carrots were grown.

## WHAT IS THE SITUATION IN KENYA?

Most produce sold in Kenya currently is not traceable. Supermarkets may have direct contracts with large farms for produce in which they trade in large volumes, but to fill gaps when demand spikes, and for lower-volume produce, they rely on brokers. Since these brokers source from a large and ever-changing pool of suppliers, some of whom in turn purchase from other brokers, and so on, traceability breaks down at this point. Smaller-scale retailers typically source solely from brokers and have no ability to trace the origin of the produce they sell. This lack of traceability makes it difficult to stop outbreaks of foodborne illness once they begin and contributes to the high prevalence of foodborne disease in Kenya [2].

However, this situation will soon change. The 2016 Horticulture Industry Code of Practice for Fruits and Vegetables, also known as Kenya Standard 1758-2:2016 or simply KS1758-2, requires full traceability of marketed fruits and vegetables.<sup>1</sup> Under the new

code, agricultural input providers, farmers, processors and packers, traders and aggregators are required to put in place systems to monitor raw material procurement, production processes and conditions, and other factors related to the production, processing, and handling of food. Growers, traders and processors are responsible for the safety of their produce and products, which must be labeled at the source with a code that indicates the farm location, block number, and other required parameters. Food produce traders and processors must be able to identify the businesses from which they obtained food produce, and the businesses they have supplied with the same. Unsafe food produce and products may not be offered for sale and must be withdrawn from sale or distribution or recalled from consumers if already sold. Implementation of KS1758 has already begun and will affect participants in Kenya's food system from farm to retail.

## EXPORTERS LEAD THE WAY

Exporters adopted traceability systems in the early 1990s to comply with the international food safety standards demanded by their target markets [3,4]. More recently, the Agriculture and Food Authority (AFA) developed the National Horticulture Traceability System; under KS1758-2, this will eventually have to be used by all formal-sector firms that sell, process, or produce food. The new system is currently being piloted among 12 exporters, and the AFA plans to eventually expand it to 100% of exporters. Since exporters already have traceability systems in place, it is relatively easy for them to switch to a new system. Starting with exporters is therefore the most efficient way to test the new national traceability system.

## WHO'S NEXT: MAJOR RETAILERS, HOTELS, AND CATERERS

The first firms serving the domestic Kenyan market that will be required to adopt traceability are formal sector retailers, caterers,

<sup>1</sup> The code is available for purchase at <https://webstore.kebs.org>

and hoteliers who are members of the Retail Trade Association of Kenya (RETRAK) or the Kenya Association of Hotelkeepers & Caterers (KAHC). These include the major supermarket chains such as Tuskys, Shoprite, Naivas, Choppies, Chandarana, and Carrefour.

Adherence to the new standard will mean changes to how retailers source their produce, and how their suppliers do business. All suppliers will be required to acquire certification of compliance with KS1758-2 through an accredited third-party certifier, and to register with the Horticultural Crops Directorate (HCD).

It remains unclear how imposition of the new standard will unfold in practice. If tomorrow retailers were only allowed to source from firms that comply with KS1758-2, many shelves would be empty. There is a need to train farmers and brokers on the requirements of the new standard before it can be implemented. This could imply higher costs for produce sold through formal outlets compared to informal street markets.

## VOLUNTARY COMPLIERS

Some aggregators of horticultural produce, often with current or past involvement in the export sector, already have traceability systems in place and hope to use this advantage to expand their domestic market share. These firms work closely with farmers to ensure they comply with the strict food safety standards demanded by export markets and high-end local buyers. During times of the year when demand in Europe is low, or simply to secure a reliable market, these companies also sell domestically. Harmonizing the traceability systems of voluntary compliers to engage with the National Horticulture Traceability System should be straightforward, as the systems share common principals. Minor adjustments such as to the format of traceability codes may be required.

Such firms are seeking certification for compliance with the new food safety standard and hope to fill the gap when enforcement of the standard begins. In the meantime, the Society of Crop Agribusiness Advisors (SOCAA) plans to promote high performing firms in terms of food safety as 'approaching compliance'.

A recent study found that even though produce offered for sale in Kenya by farmers who also are certified for export meets high standards for food quality and safety, the produce does not fetch a premium price on the domestic market because brokers mix it with that of other, non-certified suppliers [5]. Implementation of KS1758-2 will likely mean greater opportunities for such farmers to sell their produce at a premium price.

In addition, a new type of firm has recently emerged in Kenya using smartphone technology to link farmers directly to retailers. Twiga Foods Ltd. currently moves approximately 100 MT per day of bananas, potatoes, and other crops between small-scale vendors in Nairobi and farmers in rural areas. Because Twiga buys directly

from farmers, food sourced through its platform is fully traceable. The company is taking steps to ensure its suppliers comply with food safety standards such as the maximum residual limits for pesticides.

The current ability of voluntary compliers to reliably supply the needs of major retailers and hotels is below total anticipated demand once enforcement of KS1758 begins. The number of firms meeting the standard, the market share of those that already do, or – most likely – both, will have to increase.

## WHAT DO THE NEW RULES MEAN FOR...

### Consumer-facing firms?

Consumer-facing firms (retailers, hotels, and caterers), will be required to keep records of the firms from which they source any horticultural products. For most firms, this will require investing in a computer-based traceability system, including software, hardware, and employee training. In addition, firms will be required to source only from suppliers which can themselves trace produce all the way back to the farm. If relationships with such suppliers are not in place by the time KS1758-2 is implemented, or if firms do not yet have systems in place to keep track of their suppliers, disruptions to business operations will likely result.

Public resources are not currently in place to support compliance by the private sector. This puts the onus on regulated firms (starting with those serving consumers directly) to demand, and potentially help build, capacity among their suppliers. Building this capacity will take time and resources. Costs of goods may increase due to the additional requirements imposed on suppliers.

While this outlook may seem bleak, starting to build capacity for compliance with KS1758-2 early is likely to be a strong competitive advantage.

### Brokers and farmers?

Agricultural brokers will need to work closely with farmers to ensure that all produce is labeled with the required identification codes on-farm. Like consumer-facing firms, brokers will need to invest in traceability systems to keep track of their suppliers.

As noted above, much of the investment in building capacity for traceability downstream will likely be made by upstream firms. Such firms will not find it profitable to work with small-scale traders and farmers, who will face the risk of exclusion from formal-sector supply chains. For farmers, membership in farmer organizations (groups, associations, or cooperatives) with links to formal sector brokers will be an important strategy for accessing these markets.

Brokers that are already practicing traceability, or which have taken steps toward this capability, will be well-placed to grow their share of the market as enforcement of KS1758-2 gains force in Kenya.

These firms will also face lower risks of recalls and liability for food found to contain hazards.

## County governments?

To ensure continued access of their farmers to the largest retailers in the country, county Departments of Agriculture can help farmers and brokers prepare to adopt the National Horticulture Traceability System. In particular, programs that help farmer organizations achieve compliance with KS1758-2 will reduce the risk that small-scale farmers are excluded from formalizing food value chains. This will be important for long-term economic growth, as formal markets tend to offer higher prices to farmers, and the trajectory of formalization is likely to continue. However, such support will require the expansion of budgetary allocations for the responsible government departments. County governments can contact AFA for assistance with capacity building of their staff.

## National government?

Once fully implemented, KS1758-2 will bring the largely informal agricultural sector in Kenya under government regulation. While third-party certifiers will be responsible for inspections, ensuring that these perform their roles as expected will significantly require government oversight. Additionally, support from the AFA will be needed to help both affected firms throughout the value chain and county governments understand the new requirements. This will allow the private sector and lower levels of government effectively build capacity for compliance.

## RECOMMENDATIONS

- There is a need to train firms at all levels affected by KS1758-2 on its requirements. Training could be designed by the AFA and implemented through platforms such as RETRAK, KAHK, the Cereal Growers Association (CGA) and other industry groups.
- To avoid major disruption to food markets, enforcement of KS1758-2 should be implemented gradually, so that affected firms are able to build capacity for compliance in advance
- County governments have a role in building capacity for compliance with KS1758-2 among agricultural producers and traders. Building capacity among farmer groups is especially important as these represent many vulnerable citizens. Public support for such capacity building at this critical juncture will contribute to the long-term, broad-based growth of county economies.
- Firms that are ready to comply with KS1758-2 will have a significant competitive advantage once enforcement begins. Industry associations can assist their members by facilitating access to information on the code of practice and developing industry plans for compliance.

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