

ANALYSIS OF NATIONAL TRACEABILITY ON FOODS OF PLANT ORIGIN IN KENYA

FOCUS ON HORTICULTURE, FOOD CROPS AND NUTS



Republic of Kenya
Ministry of Industrialization, Trade
and Enterprise Development



Co-funded by the
European Union



East African Community



For more Information, contact

The Director General

Agriculture and Food Authority
Tea House, Naivasha Road, Off Ngong Road
P.O Box 37962 - 00100, Nairobi
Cell Phone: +254 - 700638672 / 737454618

Website:

www.afa.go.ke

**ANALYSIS OF NATIONAL TRACEABILITY ON FOODS OF PLANT ORIGIN IN KENYA
FOCUS ON HORTICULTURE, FOOD CROPS AND NUTS**

Author:

JOSEPHINE SIMIYU

DISCLAIMERS

COPYRIGHT © 2022 UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION.

This document has been produced without formal United Nations editing. The designations and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO). Mention of company names or commercial products does not constitute an endorsement by UNIDO. Although great care has been taken to maintain the accuracy of the information presented, neither UNIDO nor its member states assume any responsibility for consequences, which may arise from the use of the material. This document may be freely quoted or reprinted, but acknowledgement is requested.

EU DISCLAIMER

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the Market Access Upgrade Programme (MARKUP) and do not necessarily reflect the views of the European Union.

ACKNOWLEDGMENTS

This work was carried out as part of the European Union funded EAC-MARKUP Programme – Kenyan window – implemented by UNIDO, which aims at strengthening and enhancing the traceability system in Kenya, building on the already existing National Horticulture Traceability System launched in 2016, as requested by AFA/HCD under the MARKUP project. This guide was primarily written by MARKUP Expert Ms. Josephine Simiyu, Regulations and Compliance Manager at AFA/HCD, under the guidance of the UNIDO-MARKUP International Food Safety Expert, Dr Ian Goulding. The work was sanctioned by UNDO-MARKUP expert Ali Abbas Qazilbash (PhD), International Expert QI & SPS Compliance and Stefano Sedola, Chief Technical Advisor-MARKUP and facilitated by Michael ‘Maina’ Karuiru, National Program Coordinator of the MARKUP-Kenya project. This study on the traceability system helped to identify the need for clear and simple regulations that obligate the exporters to comply with traceability requirements to provide a transparent and accountable approach for exporters while sourcing and exporting produce.

Special acknowledgment to the MARKUP communication team, led by Christine Misiko, (Knowledge Expert), Rachel Kibui and Brian Muriuki who used the material to develop awareness campaigns and design the communication materials and publications linked to the work carried out the experts.

In addition, the support provided by Christine ‘Kiki’ Mulindi in organizing the trainings and logistic support to help ensure the smooth conduct of activities linked to these activities is gratefully acknowledged.

TABLE OF CONTENTS

FOREWORD	8
LIST OF FIGURES	9
LIST OF TABLES	9
01. THE MARKUP PROJECT.....	10
1.1 Review of the National traceability regulatory framework.....	11
1.2 Scope of work	12
1.3 Objectives	12
02. INTRODUCTION	12
2.1 Overview of the Horticulture Sector.....	12
2.2 Sector challenges.....	13
03. CURRENT TRACEABILITY REGULATORY FRAMEWORK	14
3.1 Acts under the Ministry of Agriculture	14
3.2 Acts under the Ministry of Health	14
04. STATUS OF TRACEABILITY IMPLEMENTATION	15
4.1 Structure of Beans and Peas supply value chain	16
4.1.1 Grower traceability management in Horticulture.....	17
4.1.2 Electronic database for dealers.....	17
4.1.3 Proposed National Traceability information	18
4.1.4 Grower management of food crops and Nuts	19
4.1.5 Horticulture Collection Center traceability management.....	20
4.1.6 Packing facilities traceability management.....	21
4.1.6.1 Own packhouse	21
4.1.6.2 Contracted packhouse space	21
4.1.6.3 Packing contracts for Avocado handling facilities	22
4.1.6.4 Packing contracts for Beans and Peas in pod handling facilities.....	22
4.1.7 Contract packing	23

05. REGULATORY TRACEABILITY REQUIREMENTS FOR EXPORTERS	23
5.1 Licensing of Horticulture exporters	24
5.2 Export Certification	25
5.3 Nuts and oil Licensing	26
5.4 Export certification of Macadamia Nuts	27
06. AFA INSPECTION PROCEDURES	27
6.2 Inspection of Horticulture farms.....	28
6.2 Facility Inspection	29
6.2.1 Horticulture packhouse inspection.....	29
6.2.2 Packhouse documentation	30
6.3 Facility inspection of Food crops.....	30
6.3.1 Inspection of Food crops Warehouses.....	30
6.3.2 Inspection of Food crops and Nuts and oil processing facilities.....	31
07. CONCLUSION	32
08. RECOMMENDATIONS.....	33

**“Build resilient infrastructure,
 promote inclusive and
 sustainable industrialization
 and foster innovation”**

FOREWORD

The Kenya Horticulture production landscape particularly for fruits and vegetables is characterized by smallholder farmers scattered all over the country. Produce consolidation results in product variation due to differences in inputs used and batch mix up thereby affecting produce traceability. Kenya is a key participant in global value chains which are guided by globally recognized standards as well as importing countries' regulatory requirements on food safety. Traceability is key in Global value chains because of its importance in identifying the direct source and recipient of produce and the ability to eliminate contaminated food when necessary.

The elements of a national food control systems include regulations, inspection, conformity testing and communication. Traceability is a key component of food safety as it enhances transparency and accountability along the food chain. Though, implementing a traceability system alone does not guarantee food safety but supports quality management systems. Therefore, traceability has to be supported by a regulatory framework to enable competent Authorities to monitor and enforce it through inspections as part of the national food control system. In order to have sound regulatory practices, reference is made to internationally recognized guidelines and standards for example FAO Traceability guidelines and the CODEX principles for traceability/product tracing as a tool within a food inspection and certification system.

The Agriculture and Food Authority is the Competent Authority in Kenya responsible for the national food control system on food of plant origin. The Authority has three Directorates handling food namely Food Crops Directorate, the Nuts and Oil Directorate and the Horticulture Crops Directorate which enforce the Crops Acts that provide regulatory guidance on food safety in addition to specific directorate regulations for the crops under their mandate. The Crops Act provides for the development of regulations where necessary to address a gap in legislation.

This document was developed to enable positive actions towards enhancing the regulatory framework of traceability in the Kenyan horticulture sector. The EU-Funded MARKUP project implemented by UNIDO facilitated an assessment of the Kenyan regulatory framework on traceability in a bid to enhance the institutional capacity of Competent Authorities on food safety. Traceability was identified as a key issue affecting the competitiveness of exports of Kenyan Bean due to inadequate regulatory guidance. The project assessed the effectiveness of the food safety regulatory framework of food from plant origin within AFA in addressing produce traceability objectives. This document has enumerated the findings from the assessment and recommendations that should be implemented by the competent Authorities.

Director General, AFA

LIST OF FIGURES

Figure 1: Kenya’s Export destination by volume 2019	13
Figure 2: French Bean supply Chain	16
Figure 3: AFA inspection Procedure.....	27

LIST OF TABLES

Table 1: List of Markup selected counties and products	10
--	----

1. THE MARKUP PROJECT

The EU in partnership with the EAC has launched the Market Access Upgrade Programme (MARKUP) to support member countries to improve market access of agro-food products to the EU and regional markets. The MARKUP is structured around two intervention levels: the EAC Regional Window and the Partner States National Window with country-specific projects. UNIDO is the implementation partner for the Kenya-Partner States Window.

The main purpose of this project is to contribute to the economic development of Kenya by increasing the value of both extra and intra-regional agricultural exports in selected horticulture sub-sectors; (snow peas and peas, mangoes, passion fruit, chillies, herbs and spices, nuts). Recent studies have analyzed the reasons for low productivity and competitiveness in these value chains such as the need for specialized extension services and a diffuse lack of knowledge on appropriate good agricultural practices. These value chains for exports are also lacking compliance with market requirements and standards. National quality infrastructure is at an advanced development stage including conformity assessment services; however, some conformity assessment services are not yet fully recognized by the targeted international markets.

This project addresses these challenges through an intervention, and aims to: improve the institutional and regulatory framework for better conformity assessment services in Kenya's horticultural sector; increase revenue and MARKUP for Kenya's smallholder producers and enterprises in export-oriented horticulture sectors.

The current project builds upon the success of the SMAP project to further strengthen the market potential of high-value horticulture. MARKUP focuses on the horticulture sector and in particular, UNIDO's component addresses the challenges in the following value chains snow peas and peas, mango, passion fruit, chillies, herbs and spices, and nuts in different counties listed below.

Table 1: List of Markup selected counties and products

Subsector	Value Chain	County Selected
Fruits	Mango	Makueni Machakos Embu
	Passion Fruit	Uasin Gishu, Bungoma Trans Nzoia

Vegetables	French Beans	Trans Nzoia Bungoma Taita Taveta Machakos Kajiado
	Snow Peas	Trans Nzoia Nakuru Taita Taveta
Herbs & Spices	Export Oriented herbs e.g Basils, Coriander, Dill, Sage, Mint, etc	Kajiado Nakuru
	Chillies- capsicum	Busia Kajiado
Nuts	Macadamia	Embu Bungoma
	Groundnuts	Busia Siaya Homabay

1.1 REVIEW OF THE NATIONAL TRACEABILITY REGULATORY FRAMEWORK

The project engaged a National Expert in collaboration with a MARKUP international expert to conduct and review the official controls of the current traceability system being used in the horticulture/food sector (National Horticulture Traceability System), its regulatory basis and principles. The review also involved assessment of the e-traceability system, recall and withdrawal mechanism, crisis management plans and the inspection system of traceability systems. The analysis and findings of this report will form the basis for proposing key activities to strengthen the traceability system for both fresh and processed food of plant origin and draft a roadmap of activities that will lead to the development of a blockchain traceability system in Kenya (for selected products).

The work will contribute to the fulfilment of the AFA/HCD and KEBS, based on identified areas of intervention, and aligned with the MARKUP action plan in particular it will support the delivery of both Output 1.1 and 1.2 (policy, technical regulation, standards framework in priority sectors addressed, capacity building of inspectors and strengthening of the traceability for food safety control of food of plant origin).

1.2 SCOPE OF WORK

The scope of work was to review and analyze the current National traceability regulatory framework and systems deployed for fresh and processed food of plant origin.

1.3 OBJECTIVES

1. Review legal requirements for and official controls of the current traceability system
2. Assess Inspection procedures of the traceability system
3. Propose activities to strengthen the National traceability system

2. INTRODUCTION

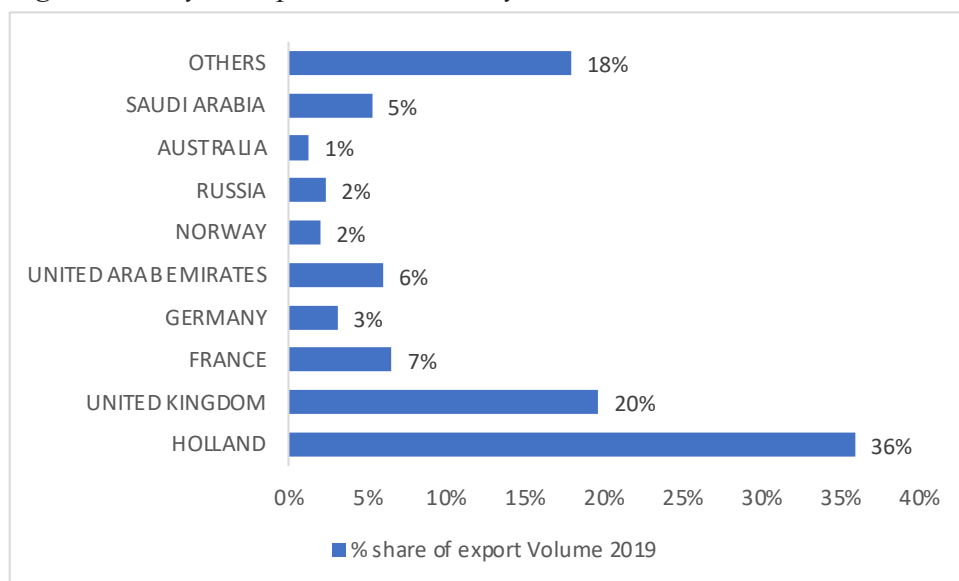
2.1 OVERVIEW OF THE HORTICULTURE SECTOR

The Agriculture sector has grown over the years from KES 1.9 Trillion in 2015 to KES 3.3 Trillion in 2019 contributing approximately 34.1% of Kenya's GDP (KNBS 2020). The agriculture sector is closely linked to the manufacturing sector which provides approximately 60% of informal employment (GOK 2018) making it the dominant source of employment. The sector accounts for 65 per cent of the country's export earnings. The cash crops that drive these earnings include but are not limited to coffee, tea, tobacco, cotton, sisal, pyrethrum, cashew nuts, and horticulture. The Horticulture sector earnings stood at 24% of the total export earnings in 2019 making it the top export earner in the country in 2019 (KNBS 2020) overtaking Tea and Coffee.

Horticulture production is dominated by largely small-scale farmers who account for approximately 80% of horticultural production with an average land size range of 1/8 acre to 2.5 acres (Care Kenya 2016), (SNV 2012). Small scale farmers account for approximately 90% of the beans and peas in pod (French Beans, Snow Peas, Garden Peas, Sugar Snaps and Runner beans) grown for export in the country.

Kenya horticulture exports have increased in earnings from 214,000MT valued at KES 83 Billion in 2013 to 313,000MT valued at KES 150 Billion in 2020. The highest commodity in both earnings and volumes is the flower sector contributing 71% of the total earnings of horticulture (HCD 2019 & 2020). Kenya has been a major participant in the global value chain and is renowned for Roses, French beans and Avocados. The key destination taking over 50% of Kenyan products are Holland and the United Kingdoms as shown in Figure 1. Kenya fruit and vegetables have competitors from Ecuador and Colombia, Chile and Peru, Israel, Egypt and Morocco (Match Maker Associates 2017).

Figure 1: Kenya's Export destination by volume 2019



Source HCD 2019

Herbs especially chives, basil coriander, thyme and rosemary enjoy a niche market in the EU whereas rosemary is also exported to the Middle East, Russia and Djibouti.

2.2 SECTOR CHALLENGES

The growth in the industry has had its challenges key among them adherence to food safety and quality requirements by Beans and Peas in pod small-scale farmers and exporters. This has come against a backdrop of enhanced legislation on fresh produce in the EU market specifically on compliance to set pesticide maximum residue level (MRL) of each product category.

The adherence to the EU legislation on pesticide MRL has been a challenge to Kenyan and has hindered the competitiveness of Kenyan Beans and Peas in pods. Three main issues contribute to non-compliance by exporters on maximum pesticide residue limits:

1. Improper use of pesticides coupled with the use of unauthorized molecules for the crop by the market. Improper usage by farmers is largely attributed to inadequate monitoring by exporters and lack of capacity by farmers.
2. Collection of produce from unknown sources by exporters who lack food safety systems
3. Inadequate capacity by government agencies to enforce adherence to food safety standards by dealers.

3. CURRENT TRACEABILITY REGULATORY FRAMEWORK

3.1 ACTS UNDER THE MINISTRY OF AGRICULTURE

The horticulture, Food crops, and Nuts sub-sector are regulated broadly through the Crops Act of 2013, which is the overarching framework that forms the basis on which relevant regulations are developed including food safety regulations. It is on this premise that specific sector regulations like the Horticulture Crops, Food crops and Nuts and Oil crops Regulations were developed.

Competent Authorities according to international guidelines are required to identify the business operators and evaluate records relating to traceability based on identified risks along the value chain. The Horticulture, Food Crops, Nuts and Oil Crops Regulations refer to the National standards on specific matters including traceability and other aspects related to food safety. The horticulture regulations have made reference to National Horticulture Standard which has explicitly made it a requirement for dealers to put in place a traceability system, therefore, making the standard enforceable by both County and National governments. The standard is divided into two parts, Part 1 covers flowers and ornamentals, and Part 2 covers Fruits, Vegetables, herbs and spices. The standard applies to all food business operators along the value chain including nursery operators, farmers, consolidators, transporters, local traders and others.

The Crops Act has made provisions for the registration of growers through their sector association, factory or cooperatives. The Authority by law is not required to register smallholder growers but maintain a register of all entities registering smallholder growers like associations, cooperatives and Factories. Among the information captured in the register are particulars of the registered growers (Full names, county, location, ID number and contact details) and area planted with scheduled crop or variations of these particulars. NOICD regulations do not capture the type and acreage of the crop. Only plantation growers may be registered by the Authority; a function that has not been made mandatory in law. On the other hand, the Act is specific on the registration exporters, marketing agents, nursery operators and importers.

3.2 ACTS UNDER THE MINISTRY OF HEALTH

Other legislation that regulates food safety relevant to food of plant origin are Public Health Act Cap 242 and Food, Drugs and Chemical Substances Act Cap 254. The Food, Drugs and Chemical Substances Act focuses on safeguarding consumer health by putting measures against unfit, adulterated, fraudulent and wholesome food at the point of sale while the Public health Act provides for regulating personnel and facility hygiene of food handling facilities and has elaborated on regulating the sale and consumption of milk. However, the two laws have not made provisions for the evaluation of critical control points for traceability to facilitate the

prevention and management of risks. There is no link between the two laws implemented by the Ministry of Health (Public Health Act and the Food, Drugs and Chemical Act) and the Crops Act to tie up traceability from farm to fork. Moreso, there are no provisions for traceability in the two laws therefore incapable of instituting recall and withdrawal measures in case of food safety non-compliance at the market. The livestock sector has piloted the Livestock identification and traceability system to enhance traceability of food of animal origin within the sector. The sector still lacks a regulatory framework to guide the adoption of traceability countrywide.

Nonetheless, the country is in the process of developing a food safety policy and Food Safety Control Coordination Law which is envisaged to establish a single Authority that coordinates competent Authorities regulating food safety in the country. The Agency is expected to have an overarching view and control of all food safety issues in the country and is empowered to put to account competent Authorities on food safety matters within their regulatory mandate. Traceability is among the provisions made for agencies to enforce and food business operators to put in place.

4. STATUS OF TRACEABILITY IMPLEMENTATION

This section will look at the regulatory provisions related and relevant to traceability of food of plant origin as provided for by the Crops Act. The Act has made provisions for AFA to enact regulations for blending, packaging and labelling of specified crops for purposes of traceability. Additionally, it provides for developing rules for ensuring food safety including handling, transportation, processing and market standards of food crops and crop products. This is the framework under which Horticultural Crops, Food Crops, Nuts and Oil Crops regulations have anchored their traceability laws.

According to Horticulture regulations, Growers, exporters and Packing facility operators are required to put in place the National Horticulture Traceability System or an equivalent traceability system approved by the Directorate. The horticulture regulatory framework seeks to address the following traceability issues summarized as follows:

- a) **Risk of Pesticide residue exceedance:** Pesticide residues that emanate from improper use of pesticides at the production level by farmers. The regulations require that growers maintain a record of pest control management including personnel handling pesticides. These records are crucial because they relate to MRL notifications and are important in determining compliance to pesticide use requirements.
- b) **Consolidating products from unknown sources:** Exporters are required to declare the source of their products and retain records at their collection sheds and packing facility. Exporter produce source is declared at the time of license application or renewal in various forms as follows:

- (a) in the case of a farm owned by the dealer, in Produce Source Form I (PS I) set out in the Second Schedule of the Horticulture regulations;
- (b) in the case of produce sourced from contracted growers, in Produce Source Form II (PSII) set out in the Second Schedule; or
- (c) in the case of produce obtained from retail or wholesale markets, in Produce Source Form III (PS III) set out in the Second Schedule. Marketing agents supplying the domestic market are authorized to use this modality of produce source for use. A one-step traceback is required

The detailed use of produce source management using PS I and PS II for exported produce is discussed in detail in section 4.1.1.

4.1 STRUCTURE OF BEANS AND PEAS SUPPLY VALUE CHAIN

The movement of Beans and Peas from the farm to the packhouse is complex and involves a multiplicity of options of product sourcing for exporters. Since there is an inadequate system for monitoring the movement of produce by both the exporter and regulatory bodies, produce sourcing especially beans and peas has resulted in a lack of a traceability system once produce consolidation is done as shown in figure 2.

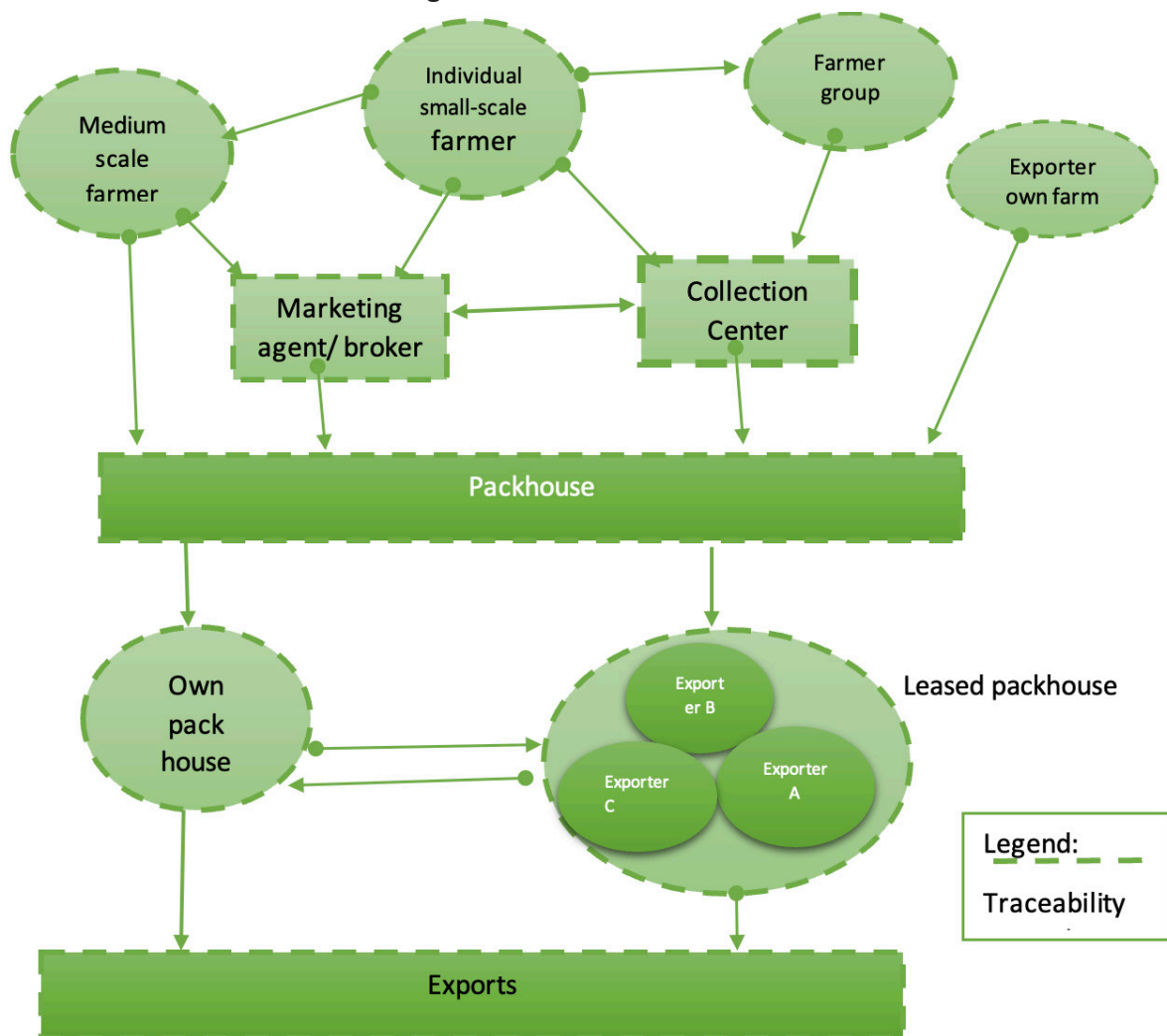


Figure 2: French Bean supply Chain

4.1.1 GROWER TRACEABILITY MANAGEMENT IN HORTICULTURE

Growers in the horticulture sector are regulated indirectly through contracts they have with exporters. Given that 80% of exported vegetables and fruits are consolidated from small-scale farmers scattered in at least 16 growing counties in the country, traceability becomes a complex issue at the point of consolidation. Exporters are expected to provide Grower information using PSII or PSI form as outlined in the Horticulture regulations before they are licensed.

The PSII form captures the following information for a group of farmers or individual farmers contracted by the exporter; Grower name and contacts, Location, commodity, the area covered by the commodity and expected volumes from the planted area in a year and trace code designated by the exporter. Exporters are expected while declaring their produce source from farmers to attach a contract indicating all farmers that are signatories to the contract on an annual basis. The PSI form captures the same information except that a contract is not required.

The purpose of the contract is to promote fair trade practices and food safety support to farmers through the provision of technical advice. The contract contains information on the specification of the product, produce rejection, inputs and the general obligations of both parties about the contract as outlined in the HCD code of conduct.

4.1.2 ELECTRONIC DATABASE FOR DEALERS

Currently, the PS form details are captured electronically through the AFA Integrated Management Information System (IMIS). The IMIS is a regulatory tool used by the AFA to register, license and issue permits or certificates to dealers regulated by the Authority. The system is an online platform that captures all the regulatory procedures, forms and legal documents to facilitate the issuance of licenses, permits and certificates. It is capable of creating a database of farmers captured using information from PS II and I forms and generating a report on farmer information for each Exporter. However, the database does not capture all the farmers engaged by the exporters because of the following reasons:

- The lack of capacity by some exporters to properly populate the information in the system given that it is a new system. Some exporters prefer to attach the PS II form as part of the contracts, which excludes the names from being captured in the electronic form.
- Some exporters have a large number of growers captured in their systems and find it tedious to retype the list in the system as the system does not provide for sharing of files with the exporter. In this case, the exporters selectively capture details of a few farmers at their discretion.
- Information on newly recruited farmers is not updated while redundant ones continue to be retained in the system. Exporters do not continuously review the database as required since PS declaration is done purposely for obtaining the license.
- Growers who are not contracted by an exporter and supply through an unregistered

broker or directly to exporters are not captured in the database. Exporters established to be sourcing produce from sources not registered with the Directorate commit an offence according to the horticulture regulations and are liable to a fine of not exceeding Kes 50,000 or imprisonment not exceeding six months.

Additionally, the regulations require that growers retain records related to pesticide use as this has been identified source for risks associated with pesticide residues. Traceability information growers are supposed to record and retain for inspection according to the horticulture regulations are:

- the name of the crop previously grown in the same field;
- the type of seed used and seed dressing product used;
- date of planting;
- pest and disease records;
- pesticide use records;
- weather conditions during the application of pest control products;
- date and rate of application of pest control products;
- irrigation frequency and dates of irrigation; and
- harvesting records;

Given the aforementioned, the inspection point for growers and exporters' produce source as outlined in the regulations is done at the farm and produce collection facility for farmer groups.

4.1.3 PROPOSED NATIONAL TRACEABILITY INFORMATION

HCD has received support from USAID to develop a National Traceability system for export commodities. The system is currently under development and is expected to be rolled out in 2022. The system has a mobile application that allows for farmer and farm registration by the exporter and capture of the farm Geo-coordinates and GPS. The mobile application also captures farm operations highlighted in 4.1.2, harvesting records, collection centre activities and packing facility activities.

The traceability information and reports of exporter suppliers will be available to the exporter and regulator on the web. The system will use a blockchain approach and trace each consignment to the suppliers. The system has four modules namely the farmer/farm registration module, the farm activities module, the collection centre and the packhouse module. These modules have been derived from the traceability operations of the exporters and will be linked to the outgoing shipment within the packhouse module.

The information and data are captured by the exporters' personnel at the farm and the packhouse. The system will have the capability of generating traceability reports including mass balancing, incoming raw material from the registered farms, inputs to the raw material among others. It is also expected that alerts will be generated in case of noncompliance to PHI or the use of unauthorized pesticides.

4.1.4 GROWER MANAGEMENT OF FOOD CROPS AND NUTS

The Food Crops regulations provide for development and capacity building of dealers by the Directorate to implement a traceability system so that the dealers are capable of:

- Maintaining records of persons from whom they obtained the produce from
- Establish and maintain a distinct traceability code for products.
- Recall and withdrawal of nonconforming produce from the supply chain.

The traceability control points targeted for inspection in the FCD regulations are the warehouse and processing facility. Additionally, the regulations have prescribed food safety aspects like the use of potable water to wash produce and application of the pest control products to be done in accordance with the Pest Control Products Act.

FCD regulations have provided for restricting dealers from purchasing produce from growers that they have not contracted. On the other hand, Nuts and oil crops regulations have provided for growers to maintain the following records for traceability: source of planting material; planting date; application rates and date of farm inputs use; farm operations type and date done; harvesting dates and quantities; and post-harvest management records. Further, the regulations have guided that the buying and selling of nuts and oil crops produce and products from small-holder farmers for traceability and commercial purposes may be done in collection centres. Nevertheless, plantation growers have been authorized to sell products directly to the market provided they demonstrate a traceability system. The regulations provide for the Directorate to conduct traceability checks and contravention to these regulations attracts a fine not exceeding Kes 500,000 or imprisonment not exceeding one year. However, the Directorate does not conduct farm, collection centre inspections to enforce the traceability requirements. The responsibility to comply with traceability requirements has been placed on the operator whilst the modalities to monitor adherence have not been implemented by the NOICD.

FCD on the other hand has not put in place mechanisms to implement the provisions outlined in their regulations regarding traceability systems of the growers.

4.1.5 HORTICULTURE COLLECTION CENTER TRACEABILITY MANAGEMENT

Produce collection facilities are temporary sheds erected by a farmer group or exporter to serve as a consolidation point for harvested produce from where the exporter agent collects for onward transmission to a packhouse.

Harvesting of vegetables is done by the grower's personnel after being guided on the quality required by the exporter technical team. The harvested produce is delivered to a produce collection shed and information of the farmer, type of produce, location, farmer group (where applicable) quantity and date of harvest is captured by the exporter's agent and recorded in a Produce Collection note and a copy left with the farmer. Each crate containing the harvested produce is accompanied by information concerning the grower and the produce. Some contracted farmers consolidate produce from neighbouring farmers and deliver it to the collection centre as their own. While others supply produce to cash buying brokers and fail to deliver to the collection centre. These malpractices besides affecting the produce projection for a particular collection centre also impacts negatively on supply chain traceability credibility.

Agents of the exporter dealing in Mangoes, Macadamia Nuts and Avocados, on the other hand, harvest produce on their own. There exists an understanding between the exporter and the farmer that every fruit harvested is considered as sold and is of acceptable quality to the exporter. The exporter agent collects produce from various collection points strategically located within a certain area for delivery to a packing facility.

Some large-scale growers deliver directly to packhouses and are issued with a delivery note which captures the name of the grower, delivery date, type of produce and quantity of produce. In most cases, medium and large-scale growers may not indicate the farm location at the time of delivery.

The inspection conducted at the collection centre validates that only the contracted farmers indicated the PSII form supply produce that is aggregated at the collection shed. However, the following aspects are excluded from inspection by HCD:

1. Growers supplying directly to exporters or marketing agents without a contract
2. Other potential risks emanating from inputs like soil, fertilizers and irrigation water are not considered.

Avocados once harvested from a farmer are packed in a van and in most cases, Avocados from different farms are packed in one vehicle in cases where one or two farms are unable to fill up a pickup.

HCD, NOICD and FCD regulations have provided guidelines for operating a collection centre, particularly on hygiene aspects and made provisions for sampling of produce at the centre to monitor food safety aspects. According to NOICD regulations, small-holder farmers are urged to market products through collection centres and maintain a documentation system without elaborating on who is responsible for documentation. However, the collection centre is not a traceability control point and therefore not inspected by FCD and NOICD regulations for export produce and products.

4.1.6 PACKING FACILITIES TRACEABILITY MANAGEMENT

Each exporter is required to be packing from a registered and inspected packing facility before they are licensed by HCD. A majority of the packing facilities for fruits and vegetables are located near the airport and are operated by export companies. The horticulture regulations introduced the registration of all packhouses for purposes of traceability and monitoring the exporter's quality management systems. There exist three types of packing arrangements:

1. Own packhouse
2. Leasing of packhouse space
3. Contract packing

4.1.6.1 OWN PACKHOUSE

Some packhouses are singly owned and managed by an export company and related companies. This is common for large and middle-sized exporters that transact large volumes of products, have food safety systems, and may be hindered by the size of their facility to share. It is also guided by the policy of the export company on how to operate and manage the packing facility. Exporters with their packhouses also source from out-growers. Where sister companies exist, the traceability system is not separated as the produce supply source is the same. The only difference is the branding that differentiates the company. There are cases where each of the sister companies has a separate product line

4.1.6.2 CONTRACTED PACKHOUSE SPACE

Exporters who lack packing facilities of their own, contract packing space and cold room from other exporters through a packhouse contract agreement sometimes referred to as a "lease" agreement. The practice is common for small-sized exporters who cannot set up a packing facility and may be operating intermittently handling small volumes. The owners of the common user facilities are also exporters except for the seven pack houses owned by HCD. The Directorate has registered 135 packing facilities for fruits, vegetables and herbs out of which approximately 29 packing facilities provide packing space and cold room services to other exporters through a lease agreement. The number of users in the leased packing facilities ranges from one to a dozen.

Where there are several users, packing is done in shifts though at times there is congestion as some of the facilities contract more than the required capacity of the facility. Additionally, some exporters export intermittently and may not be confined by a single packhouse contract. Given their seasonality in operations, they are unable to purchase produce continuously and therefore not in a position to maintain contracts with farmers.

The packhouse contract may be either seasonal depending on the number of times packing operations are conducted or long term contracts. The packing facilities are specific to the commodities (either vegetables or fruits) or a combination of commodities like the HCD packing facilities. Exporters who have contracted packing space are required to furnish the Directorate with a signed contract agreement of the facility to facilitate licensing. However, some of the exporters provide agreements for the sake of the License and thereafter operate in unknown facilities. Where it is established that an exporter is operating from a packing facility that is not registered, the exporter's license is suspended until they comply with this requirement.

The contracted packhouses besides providing packing space may provide packing equipment like grading tables, crates, pallets, cold storage among others at a fee. They are required to have their quality control monitoring system complete with personnel for packing operation. Each exporter is in charge of raw material sourcing and establishing their traceability system. However, the conditions or terms on the lease/contractual agreement are not regulated but are dependent on the packhouse owner and exporter agreement mostly depending on the commodity and mode of operation. The contracts for each commodity are generic and do not differ much on the terms.

4.1.6.3 PACKING CONTRACTS FOR AVOCADO HANDLING FACILITIES

The pack houses handling Avocado have installed the Avocado grading equipment and leased out the facility for exporters who lack the equipment. The lease agreement specifies the cost and duration of the contract and assigns the responsibility of supplying the products, availing packing material, quality control and handling of the rejects to the exporter. The owner of the packhouse takes over the responsibility of sorting, grading and packing the product ready for shipment. The packing

4.1.6.4 PACKING CONTRACTS FOR BEANS AND PEAS IN POD HANDLING FACILITIES

The packing contracts for facilities letting out space to Beans and Peas exporters provides for use of space and obligate the exporter with the responsibility of maintaining hygiene within the premises. The exporter is therefore responsible for sourcing produce, grading, packing, storage, monitoring of quality and maintaining all records relating to the processing operations. However, there are cases where exporters within a common user facility utilize the same quality control

personnel for packhouse operations. The QC will be in charge of receiving raw material on behalf of the companies, monitoring packing operations and record keeping. They will also recruit the graders and other manual labour required for the packhouse operations and sometimes coordinate produce sourcing. This gap has contributed to the thriving of unregistered brokers and independent farmers who deliver produce that has not been monitored by the exporter. In addition, when a company is notified and their license is suspended and ECS blocked, the notified company continues to export using the account of a sister company or one that they collude with.

In both scenarios, the traceability responsibility lies with the exporter who is required to have a documented system. The owner of the premises does not provide for accountability of produce coming into their packhouse. In addition, the packhouse owner is not obligated by law to report to the Directorate in case a lease ceases to operate from their packhouse which leaves room for the mobility of some exporters making it difficult for the regulator to monitor these exporters.

4.1.7 CONTRACT PACKING

Contract packing is allowed within the regulatory framework so long as the traceability aspects can be validated through contracts and production records. The practice is common for Avocadoes and flowers and are referred to as consolidators in the licensing regime. For avocadoes, the packing facility is responsible for sorting, grading and packing the fruits. The exporter is responsible for quality control/supervision, records, removal of rejects sourcing of the fruits and packaging material. Within the Directorate's register for beans and peas exporter, none has declared to be a consolidator even though the practice cannot be ruled out. A 2019 traceability audit established that two companies had come into a contract packing arrangement that resulted in both of them being notified.

The contract arrangement with flowers includes sourcing of the produce, packing and delivery of the product to the clearing agent. The exporter's responsibility is the preparation of the required documentation for the export certificate and the Phytosanitary certificate.

5. REGULATORY TRACEABILITY REQUIREMENTS FOR EXPORTERS

The Crops Act and the Horticulture Crops, Food Crops and NUTs and Oil crops regulation require exporters, marketing agents, processors to be registered by the Authority and their licenses renewed annually. The license application is done online and considered by a vetting officer against the requirements before the issuance of a license. Each regulation has provided for different criteria for licensing of the exporters which are discussed below.

5.1 LICENSING OF HORTICULTURE EXPORTERS

Horticultural exporters provide information regarding their legal status, information about their Directors, company Physical address, contacts, Packhouse location, Intended produce to be exported including the produce source for each commodity. The produce source details are as discussed in 4.1.1.

Currently, there are 800 licensed horticulture exporters of which 289 export fruits, 212 export vegetables and 104 dealing in flowers. However, over 200 exporters are dealing with a combination of two or all of the mentioned categories. The regulations require that before an exporter is licensed, produce traceability records; contracts from contracted produce sources and documents indicating that the applicant operates from a registered packing facility are provided. This information forms the basis for Farm, packhouse and transport inspection.

All licenses run from 1st July of each year to 30th June of the following year. Each year the Directorate notifies exporters about three months in advance and are required to complete the application and inspection process before 1st July. Exporters may be required by the Directorate to appear in person if the documents submitted are not satisfactorily addressing a compliance issue to give more clarification or produce the original document.

Once the application is lodged through the IMIS system, an alert is sent to an inspector to conduct farm and packhouse inspections. An alert is sent out to different inspectors if the exporter has farms in different counties. The application will not proceed to the next step unless the farm, packhouse and transport inspection are done and approved. The application will then proceed to the vetting stage to validate the information (business permit, tax compliance certificate contracts and lease agreements where necessary, certificate from association, GlobalGap certificate for Beans and Peas in pod exporter). Once this information is validated at this stage, the application moves to the final approval stage to provide a third eye on the document before payment and issuance of the license.

An application may be rejected or deferred depending on the magnitude of the non-compliance. If it is a serious breach of the regulations like forging documents or declaration of insufficient produce source against the returns and intended exports. On the other hand, an application is deferred if:

- the issue does not pose serious quality or safety reduction in the product
- a lack of clarity in the documents attached
- lack of attaching a compliance document or if the document is outdated.
- The issue can be resolved by the exporter

If an application is deferred at any stage, the exporter is notified by email and the reason for deferment is provided. The exporter is given a chance to resubmit the application after taking corrective actions. In case of a rejected application, the exporter is obliged to reapply afresh but will be required to provide reasons why their application should be reconsidered. The common issue is that the applications are generic for Fruits and vegetable exporters as they use a pool of consultants who use a common template. There is a lack of a mechanism for validating these documents as most of the time, the consultants retain these documents and avail them at the time of inspection. However, this is not the case with medium and big sized exporters with systems including having their Technical assistants. Each exporter is expected to have a traceability procedure in place and a mechanism of identifying raw material coming into the packhouse up to the final product as outlined in the Horticulture standard.

At the time of inspection by HCD, the exporter should furnish the inspector with registered supplier information according to PSI or PSII forms, incoming material records, cold storage records, demonstrate batching, packing list and rejection records to determine system traceability. The exporter is required to have a documented traceability procedure against which the inspection is done. However, information relating to the product is not easily accessible from the exporter because the systems used are manual and rely on reports from the Technical assistants located in the field. Where an exporter fails to demonstrate produce traceability to an inspector by not providing the appropriate records, their license is rejected and if in operation, the license is suspended.

However, records related to producers who are not managed by the export company TAs can be availed to the exporter on request. Some producers source produce from other producers, consolidate with their own and supply to exporters as their own. Some exporters have established ways of nipping this practice by monitoring their production based on the quantity of seed supplied to farmers in a certain area. There is always the challenge of having sufficient Technical assistants to effectively manage risks emanating from the field like improper pesticide application. However, poaching of produce is at times facilitated by the export company.

5.2 EXPORT CERTIFICATION

The Horticulture regulations require that every consignment of the horticultural product be accompanied by an export certificate after a food safety inspection. Except for Mangoes and Avocadoes which are inspected to confirm maturity status, the other commodities are not inspected before shipment. The exporter is expected to make an application for the export certificate and submit the following documents before issuance of the certificate:

- a copy of the horticultural produce export license;
- a copy of the consignment invoice certified by Kenya Plant Health Inspectorate

Service indicating—the product name; the destination of the product; the consignee; the flight details: the unit value of the product, indicating the currency; and the weight of each product being exported in Kilograms;

Exporters of Food Crops according to the Food Crops regulations are expected to make an application a Certificate of Conformity (CoC). The applicants are required to provide information on the quantity and value of the intended commodity to be exported and submit their legal registration documents (PIN, IDs, Accounting documents etc) alongside their application. The exit point and information on the transit shed is also required to be provided. The exporter signs a self-declaration that the food is safe for consumption. The CoC is issued after inspecting the consignment against the requirements of the importing country and not the national commodity standards. Among the documents inspected by the Directorate are Transport documents, Commercial invoice and Packing list

5.3 NUTS AND OIL LICENSING

The Nuts and oil regulations provide for licensing of manufacturing facilities and exporters. There are approximately 40 licensed Macadamia nuts exporters and 4 marketing agents. Not all manufacturing facilities are involved in the exports of Macadamia nuts but some are common user facilities for drying nuts. What is mainly regulated in Macadamia nuts are pod maturity and exports of in-shell nuts. Operators applying for licenses make applications through the IMIS system and provide information on legal details (Name, Physical address, contact and location of the exporter), source of the produce and destination market. Traceability of raw material supplied to exporters is regulated through the registration of marketing agents supplying them with raw materials and contracted farmers. Most of the farmers sell Macadamia Nuts through buying centres designated by marketing agents or exporters. The buying centres have to be approved by the county governments according to the regulations. However, this is not the current practice as some marketing agents do not declare all their buying centres and the Directorate lacks the mechanism of validating this information.

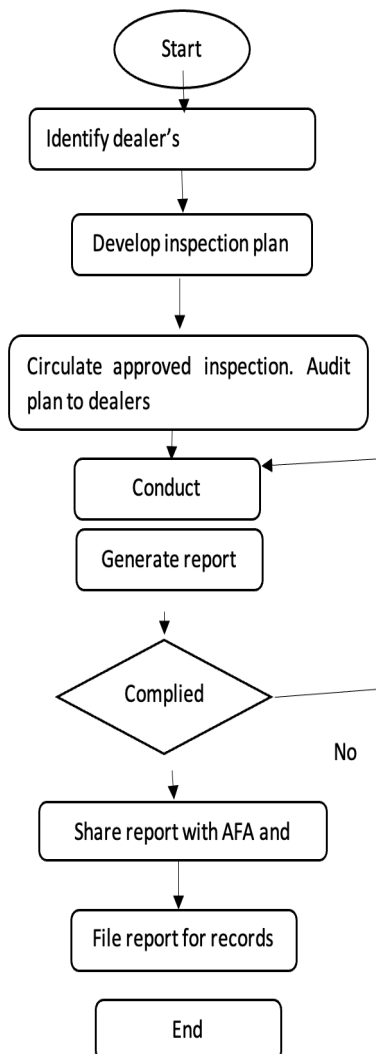
The Marketing agents are required to make an application to the Directorate for registration indicating the location of all the buying centres from which they source produce and farmers supplying produce to the centre. They are also required to attach a supply contract with the exporter and indicate their source of produce by attaching contracts with farmers. The directorate approves the registration of the agents by assessing the documents provided and issuing a certificate. However, the Directorate does not validate the information provided by the agents on the collection centres and farmers supplying the centres.

5.4 EXPORT CERTIFICATION OF MACADAMIA NUTS

The Directorate does not inspect products at the point of exit but assesses the documentation to confirm that the nuts are processed and are emanating from a licensed exporter before they issue an export permit. The regulations have provided for verification of the export consignment, however, the verification of the consignment has not been effected moreso a checklist to conduct the verification is lacking.

6. AFA INSPECTION PROCEDURES

AFA has elaborated on inspection procedures for all its directorates in its ISO 9001 Quality management system manual. The manual provides a general guideline or procedures Directorates should follow when conducting inspections. The flow chart of inspection of dealer facilities and premises is as shown in Figure 3.



Source: AFA

Figure 3: AFA inspection Procedure

The dealers' premises and farms are identified for inspection through the IMIS registration and licensing portal. The portal automatically notifies the inspector on the facility or farm to be inspected depending on the location. The inspection is mandatory for each exporter every year therefore a given farm can be inspected year in year out without which a license is not issued. Where an exporter has more than 10 farms in an area, the inspector samples from the square root of the total number of farms.

All AFA regulations have made provisions on inspection of produce handling facilities to monitor compliance by dealers to food safety requirements including traceability. However, only HCD has made provisions to inspect farms supplying produce to exporters. Each Directorate has developed a checklist to monitor the facilities of their registered dealers.

6.2 INSPECTION OF HORTICULTURE FARMS

Farm inspection is a prerequisite for Licensing of all exporters. The farm inspection is based on the farms declared in the PSI and II form. The traceability details inspected are as follows:

- i. Traceability system in place approved by the exporter: The exporter has to demonstrate that they have guided the grower on the traceability information to be captured, how it is to be captured and the person responsible for recording and maintaining records. The grower must confirm that they are aware of the documented traceability procedure or the technical assistant assigned to the grower or group of farmers.
- ii. Product identification records: The product leaving the farm must be identified and the farmer should indicate the identity assigned produce from his farm through the farm records or collection centre records.
- iii. Availability of registers for all produce leaving the farm. The grower is expected to have a register for each product on harvested quantities, date of harvest, and the entity collecting the product. They should have a receipt, delivery note or invoice to indicate the movement and transfer of ownership of the produce.
- iv. Presence of field/ farm/block labelling; Block labelling is determined visually by the inspector. The inspector checks that the information on the block label has the Crop type, date of planting, block number and expected date of harvest.
- v. Records of planting date, crop planted, area planted and Harvesting dates
- vi. Records on pest management including (approved spray program from the exporter, Records of pesticide use, purchase receipt, spray schedule or record and any other Pesticide use records as indicated in the regulations)
- vii. Presence of a documented traceability procedure at the collection shed. The collection shed should have a register of all products received. The register should have the name date of delivery by each farmer, quantities delivered, crop type, produce identification for each farmer, date of collection, the person responsible for collection and the transport details (vehicle registration number and name of the driver)
- viii. Training schedule/matrix and certificates on GAP

Farm inspection is conducted by inspectors at the county level through a physical inspection through the IMIS system. The traceability records for contracted small scale farmers are captured and maintained by the exporter's technical advisors (TA). These records are held centrally by the TA for farmers supplying each collection shed. Most of the time, small scale farmers are not aware of what is contained in the records and have limited access to records of their farm operations. The growers are dependent on the exporter's traceability procedures and record-keeping which has resulted in the challenge of accessing information in the absence of technical staff.

Where growers are operating independently of the exporter or technical support, the information is captured by the grower or a TA employed by the Grower. The information captured may be guided by the TA or grower but does not necessarily adhere to the traceability information as required by the regulations. The independent growers are not inspected since the exporters do not declare them to the regulator.

Even though most farmers have been trained on Good Agricultural Practices, the level of awareness on traceability issues is still low as the legal provisions have not assigned them traceability responsibilities besides capturing pesticide use records.

6.2 FACILITY INSPECTION

The inspection of facilities is mandatory for all dealers licensed or registered by AFA.

6.2.1 HORTICULTURE PACKHOUSE INSPECTION

Packhouse inspection is mandatory for all licensed exporters and is conducted on an annual basis. Surveillance activities are done on an ad hoc basis with consideration being made on companies that have a high risk of non-compliance. Inspection is also conducted during notification of the company on pesticide residue exceedance. Two inspectors conduct the packhouse inspection but due to capacity issues, sometimes one inspector conducts the inspection. The following documents are looked into during the packhouse inspection:

1. Source of produce for raw material: Inspector uses PSI and II forms against Goods Received Notes (GRN) or Produce collection Notes (PCN) or Produce Delivery Notes. If information is not updated on the PS forms, the exporter is expected to furnish the new contracts.
2. Harvest records: should include Harvest Dates, Quantity Harvested for each material received and packed,
3. Storage records: Storage codes for produce in the cold room; Processing records for incoming and outgoing produce with clear segregation processed and unprocessed material.
4. Packing register: The packing register must have the Carton or Package Codes, number of units in a batch, quantity of each batch, packing date, name and authorization of Quality control personnel
5. Disposal register: Rejected weight for each batch, reasons for rejection, Disposal codes, date of rejection, name and authorization of Quality control personnel

They produce mass balance is also calculated taking into account the raw material received, processed product rejects and cold room inventory against the final packing register to validate

the traceability of the final product.

Where it is established that there are breaches in the regulation, the company is notified of the noncompliance and given a chance to address the nonconformity within 30 days. The inspection also covers hygiene issues for the facility, equipment and personnel. The personnel operating within the packhouse are required to have a medical certificate that is valid for six months.

6.2.2 PACKHOUSE DOCUMENTATION

The traceability records evaluated at the packhouse are Delivery notes, PCN or GRN. These three documents are used to trace back products received from the growers and accompany the produce from the farm to the packhouse. The delivery notes, GRN or PCN have details of the name of the farmer, location, date of collection, type of product, volume collected in Kilos, price per kilo and date received at the packhouse. The GRN or PCN will also contain the details of the vehicle and the driver that collected and delivered the produce from the farm to the packhouse. These are important documents as they are the basis of traceability at the packhouse.

The inspector selects from the list in the delivery note/GN/PCN to conduct farmer audits. However, there are cases where the growers captured on the delivery note/PCN/GRN are not part of the growers declared in the PS II forms. The reason for this is either the farmer was contracted after the license was obtained and the exporter failed to update the list of growers or an incidence of spot buying. There are also growers in the list supplying large volumes who obtain products from other farmers (brokers) but are declared as farmers in the PCN/GRN list. This is common for both fruits and vegetable exporters even though some marketing agents in the fruits segment are registered. The license of an exporter is suspended if Directorate establishes during the inspection that the company receiving and packing produce whose source cannot be accounted for.

6.3 FACILITY INSPECTION OF FOOD CROPS

The main traceability control points indicated in the food crops regulations are warehouses¹ and processing plants² and have been targeted for inspection.

6.3.1 INSPECTION OF FOOD CROPS WAREHOUSES

The Country has warehouses owned by the government (National Cereals and Produce Board (NCPB) and National Irrigation Board (NIB)) that are scattered all over the country. Some of the

-
- 1 Warehouse” means premises, in whole or in part, that are where food crops or food produce can be held for wholesale distribution to a wholesaler, retail outlet, restaurant or another entity, that sells or distributes the food crops or food produce, to consumer; and used for the storage of food crops or food produce, in an institution such as a school, hospital, prison or a training institution for instruction in the preparation of food for consumption;
 - 2 “Food processing plant” means a facility for processing, repackaging, packaging, labeling or distribution for sale of a food crop or food produce;

products handled by NCPB are Beans, Greengrams, Rice and Maize. The warehouses provide storage facilities for grains on behalf of farmers and traders. Traders consolidate grain from different farmers in different regions and use NCPB warehouses for storage. Other services offered by NCPB are grading of grain, drying and Aflatoxin testing. There are also private warehouses that offer warehousing services. FCD has made an initiative to inspect and certify NCPB against hygiene aspects but not on product traceability by the operators and the warehouse owners.

Operators of warehouses of Food crops are registered and licensed by the county governments. The applicants must provide basic information about the company (Name, location, contacts, Physical address and PIN) and indicate the capacity of the facility and the commodity type. The regulations provide that the warehouses can only operate if they have a compliance certificate issued by the Directorate after inspecting the premises. However, the counties do not maintain a register for Food crops Warehouses that can be used for inspection or surveillance purposes by the Directorate.

The Food Crops regulations have assigned the responsibility of products traceability at warehouses to the operator but has not guided on the documentation and records required to achieve this. On the other hand, Counties have not taken up the role of licensing warehouses and not all warehouses especially private ones operate without a compliance certificate due to inadequate capacity by the Directorate to effectively execute the inspection function.

6.3.2 INSPECTION OF FOOD CROPS AND NUTS AND OIL PROCESSING FACILITIES

FCD regulations also provide for the approval of processing facilities for produce and products to conduct operations. Operators of processing facilities are required to seek preliminary approval from the Directorate before establishing the facility. Once the completion of the facility is done, they are required to apply for inspection by the Directorate. Among the traceability requirements that they are required to provide in the application form is a declaration of produce source, procedures for receiving, handling and storage of produce, procedures for recalling and tracing the food crops or food products that will ensure that the processed food crops or food products are coded and labelled properly. Other requirements relevant for food safety are procedures for monitoring pest control, both for the exterior and interior of the premises, cleaning, calibration and maintenance of equipment and monitoring water safety.

The checklist provided in form 21 of the regulation does not capture traceability aspects to validate the procedures of the processor including management of raw material suppliers but relies on the declaration of the processor. The processor is issued with an approval certificate after complying with these requirements if it is a new facility and a certificate of compliance if it is an existing certificate. The certificate of compliance is valid for one year. This function is

targeting millers of cereals and pulses and has not been operationalized by the Directorate.

On the other hand, NOICD inspects the manufacturing facilities on hygienic aspects and monitors adherence to maturity and trading of shelled nuts. The inspection is done before licensing of the exporter and during surveillance to monitor quality, maturity and packaging of shelled nuts. The checklist for inspection has not incorporated inspection of traceability at the collection centres and manufacturing facilities although the regulations have provided for quarterly monitoring of the traceability system of the dealers.

7. CONCLUSION

The crops Act of 2013 has elaborated on the registration and licensing of dealers in food and non-food crops. Further, the Authority has developed a platform for which registration and licensing are done with the capability of creating a farmer and dealer database. The directorates within AFA that regulate different crops have incorporated the registration and licensing in their laws. The registration of business operators regulated by the Authority has gaps. Exporters are required to register all their produce suppliers at the start of the licensing period in the IMIS database and review the register during the licensing period in case of changes that arise in supplier listing or delisting. However, the exporter do not review their database as required due to HCD has not enforced this requirement. Given this, the IMIS farmer database cannot provide real-time exporter supplier traceability and therefore cannot be relied upon. Therefore the system does not meet the objectives of traceability since not all farms from which products are exported are listed within the system.

The regulatory framework though assigning the responsibility of traceability to the exporter has not sufficiently provided guidance on the minimum requirements/criteria to be fulfilled at each traceability control point to adequately administer a traceability system. An example is a system employed by some exporters using shared packing facilities that do not guarantee produce accountability and transparency. Additionally, the Authority does not stipulate the requirements for recall and withdrawal procedures in case of a food safety emergency.

The current inspection checklist is not adequate to monitor compliance to traceability, particularly at the collection centres and packing facility. The checklist has not incorporated packing facility administrative aspects, the responsibility of packhouse/warehouse/processing facility owner and produce sourcing transparency. The checklist's inadequacy results in an inspection decision that is inconsiderate of exporter traceability gaps.

The AFA export certificate does not oblige exporters to include a traceability list of suppliers on their consignment and therefore produce traceability cannot be verified. Therefore, products

obtained from undocumented unverifiable sources may be exported posing food safety risks. The national traceability system is still formative, and its operational abilities have not been assessed. The system should be capable of addressing the traceability challenges highlighted in this report.

8. RECOMMENDATIONS

- There is a need to provide clear and simple regulations that obligate the exporters to comply with traceability requirements to provide a transparent and accountable approach for exporters while sourcing and exporting produce. It is therefore imperative that aspects of traceability outlined in Horticulture regulations 2020 be reviewed and consolidated to provide clarity to operators on aspects that meet traceability objectives that provide for the following:
 - Product recall and withdrawal to food business operators and provide
 - Roles and responsibilities of value chain actors (Business operators, AFA and County governments etc) in implementing and managing traceability, national recall and withdrawal for food of plant origin. Among the responsibilities for business operators would be accountability for produce/product traceability at any stage during the handling and consignment preparation process.
 - Enforcement of traceability during exports by inclusion of supplier information in the export consignment verified by AFA before issuance of the export certificate.
 - Traceability procedures for common user facility.

- AFA requires to verify produce/product traceability at the point of export for each consignment. For example, the HCD Directorate should enhance the export certification requirement for every consignment to provide complete and transparent traceability information for each consignment. Exporters should be required to provide traceability information for each consignment, upon which verification and export approval is made by an inspector. Inspection will be done based on the risk profile of a business operator and for products that are high risk like herbs, beans and peas in pod. AFA together with KEPHIS and PCPB has developed a risk register that has categorised Beans and peas exporters using a risk-based approach. An export certificate should only be issued to consignments that have listed each farm that has supplied the product.
- The AFA inspection checklist used by NOICD, HCD and FCD need to be reviewed to take into consideration the nature of the current practices described at the farm and packing facilities. The checklist should be comprehensive to enable appropriate inspection decisions to be made by an inspector. This will also require training of AFA inspectors on the enhanced traceability inspection.

The Authority lacks the capacity and experience in monitoring implementation of the withdrawal of food from the market and therefore the capacity of AFA needs to be built to effectively handle food safety emergencies within their mandate.



MARKUP

EU-EAC MARKET ACCESS UPGRADE PROGRAMME



Contacts

United Nations Industrial Development Organization (UNIDO)
P.O. Box 41609-00100
United Nations Avenue
UN Gigiri Complex, Block N, Ground Floor
Nairobi, KENYA

Tel: +254 20 7624369; +254 20 624388;

Email: office.kenya@unido.org

Website: <https://www.unido.org/>