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In cooperation with



Process of evaluation of representative coffee samples delivered to the Exchange for collection by potential coffee buyers so that they can do their quality analysis prior to the sale. © Nairobi Coffee Exchange



## COFFEE INNOVATION

Integration of Sustainability and Traceability Modules into the  
Nairobi Coffee Exchange (NCE) Digital Trading System

Developing tools to improve digital supply chain  
traceability and access to markets

# OVERVIEW: NAIROBI COFFEE EXCHANGE (KENYA)



## CHALLENGE

The coffee supply chain in Kenya can be hard to trace due to a lack of reporting infrastructure and traceability protocols. Traceability is becoming a prerequisite to doing business in Europe and adds value to the product.

## INNOVATION

Creating an online trading system that mainstreams traceability of goods in the supply chain, enabling sustainability and transparent reporting, serves to promote Kenyan coffee in international specialty markets. Easy-to-use spreadsheet-based templates coupled with online validation workflows have been designed for this. The system has been programmed to automatically analyse and validate incoming information for accuracy and conformity, only allowing the process of uploading to proceed when the information is compliant with system requirements.



## COMPANY DESCRIPTION

Nairobi Coffee Exchange (NCE) provides a platform where buyers and sellers can come together to trade coffee in a transparent and efficient manner.

## KEY COMPANY STATS

### NUMBER OF PRODUCER PARTNERS

25

### NUMBER OF STAFF

Seven



## COST

### COSTS

Free for producers

### EFFECTS ON REVENUE & YIELD

Could not be determined



## PREPARATION

### TIMELINE

Seven months, including mapping and onboarding

### STAFFING REQUIREMENTS

Several staff are required to support onboarding and mapping. This will depend on the number of farmers, the locations, and how long before harvest you begin.

### MATERIALS AND EQUIPMENT

- Digital software, computers or smart tablets, quality check equipment (cupping bowls, spoons, grinder, roaster, kettles, tables etc.)
- Event space (to support auction process, even though it is digitized)



## LESSONS LEARNED

### CHALLENGES

- Technological gap where some of the actors did not have the requisite infrastructure to support real-time data capture.
- Some areas were very remote with poor internet network/data connectivity.
- The system development life-cycle was stretched beyond the projected time frame due to technical challenges of system integration between the existing off-the-shelf digital trading platform and the modules under development.
- Requisite qualified human resources to undertake data input and analysis was also found lacking in parts of the value chain.
- Not all the major stakeholders could be trained due to resource constraints.

### TAKEAWAYS

- This project filled gaps in traceability information along the smallholder coffee supply chain and created a better system for data capture and management.
- Extensive stakeholder engagement at the design phase helped identify the barriers to data collection and drove the features developed.
- This project helped to illuminate all of the stakeholders and actors who could impact coffee traceability, setting a foundation for future engagement and collaboration.
- While the project budget and timeline could not support the entire industry rollout, the pilot was successful and continued development can be sustained through growth of the auction and services.



## RESULTS: NAIROBI COFFEE EXCHANGE (KENYA)



Coffee buyers seated amongst coffee brokers following a sale and purchasing coffee through the automated auction system at the Exchange auction room (since moved to remote bidding). © Nairobi Coffee Exchange

As a result of Nairobi Coffee Exchange (NCE) developing software to improve digital supply chain traceability:



### THE NCE TRADING PLATFORM

was digitized, which increased traceability and sustainability of products



Over 500 cooperatives registered in the platform, selling a total of  
**600,000 BAGS**  
(1,875 containers)



### LOCAL NETWORKS

were strengthened to improve and contribute to traceability



Auction participation:  
**150 PAYING USERS,**  
of which 50 – 60 active buyers

## IMPLEMENTATION: NAIROBI COFFEE EXCHANGE (KENYA)

Other farmer groups, processors, cooperatives and exporters could use the NCE platform to market and facilitate the sale of their coffee by:

STEP

1

Registering farmers for traceability, including verification of ID documents

STEP

2

NCE field staff identifying and verifying physical location and collecting location data

STEP

3

Submitting lots to NCE for approval and entry into the auction

STEP

4

Promoting the auction to international buyers, registering and preparing samples

STEP

5

Holding sale, closing transactions, receiving payment and shipping coffees

“

Enhancing the trading platform enabled NCE to access real-time data of their growers.

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**MISSION:** The Fund's objective is to increase the profitability of smallholder coffee farmers, and foster greater, more equitable value distribution along the supply chain through promoting innovative farming systems, transparent and inclusive business models, and access to new markets.

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