

UGANDA

FUEL INTEGRITY SOLUTION

With no current refining capacity, Uganda imports 100% of its hydrocarbon products, 90% of which come from Kenya, through pipelines (85%), trucks (15%) and barges, and the remaining 10% from Tanzania, via trucks. Because of this specific configuration, the main fraud pattern identified is fuel adulteration with a lower price solvent, mainly diesel with subsidised kerosene. Before the implementation of the Fuel Integrity Program, the fuel adulteration rate was estimated at 30%.

Recommended by the International Monetary Fund (IMF), Fuel Integrity Programs have been recognised to be an effective tax administration measure, essential for improving domestic revenue mobilisation, fight illicit trade, combat cross-border smuggling and reduce tax evasion in various countries.¹

SICPA's Fuel Integrity Solution, which includes advanced forensic marking technology, an inspection system, and an integrated monitoring platform, has been designed to be deployed at country level to help governments eradicate fraud affecting the integrity of their hydrocarbon supply chain and recover lost tax revenues. Successfully implemented in more than 8 different countries, the solution is currently in operation or under implementation for several governments, including Uganda, Tanzania, Niger, Kosovo, the Philippines and Kenya.

1. IMF, 2022 / IMF, 2021 / IMF, 2021

SICPA's best-in-class solution for maintaining product integrity in the downstream fuel supply chain helps governments to:

Reduce illicit trade and cross-border smuggling by increasing stakeholder compliance



Increase excise revenue mobilisation and customs duty collection



Ensure a level playing field for all economic operators by establishing a fair and healthy competitive environment



Increase the quality compliance of fuel products to reduce pollution, preserve the environment, and ensure engine performance



A unique technology ensuring product quality and fiscal compliance across the entire fuel supply chain

Accurate quantitative detection of illicit trade on site in 3 to 5 minutes



Secure, centralised collection of court admissible test results



Analysis and business intelligence platform to monitor and enhance fraud prevention



A solution from a company trusted by governments and international organisations



THE FUEL INTEGRITY PROGRAM IN UGANDA

Implemented in 2008, SICPA's Fuel Integrity Solution has been running since then. Initially, SICPA provided only the technology (markers, analysers, fully equipped mobile laboratories), while from 2012 both technology and operations (marking, inspections, reporting) are provided by SICPA to the Ministry of Energy and Mineral Development (MEMD) and UNBS (Uganda National Bureau Of Standards).

SICPA's solution combines advanced molecular marking technologies with a sophisticated inspection system, making it possible to quantitatively detect the presence of the marker in fuels, during in-field inspections. Additionally, a sophisticated digital platform provides governments with the ability to monitor the marking operations and in-field inspections, which allows to significantly increase visibility over the distribution of hydrocarbon products in the country.

Besides the control and monitoring side, SICPA's solution provides a preventive and dissuasive effect against the perpetuation of illicit activities as it encourages economic operators to comply at the risk of being severely sanctioned.



FORENSIC MARKERS

2 highly secure forensic markers securing diesel, gasoline and kerosene.

Marking is performed in 4 sites: 2 sites in Busia close to the Kenyan border, 1 site in Mutukula close to the Tanzanian border, 1 in Malaba close to the Kenyan border.

Markers are highly resistant to any chemical washing and filtration processes. Invisible, colorless, odorless, they have no effect on the fuel properties.

Complying with all environmental regulations, they do not cause any damage to combustion engines and do not reduce their performance.

Stable even under extreme climatic conditions, they have an extremely long shelf life.

A fully equipped and well secured warehouse is available in Busia for marker storage and secure dispatch.



MOBILE FORENSIC ANALYSERS

9 mobile forensic laboratories travel the country to quickly and in-situ determine the conformity of fuels at any point in the supply chain.

Installed in 4x4 off-road inspection vehicles, maximum mobility is ensured to reach the remotest corners of the country.

SICPA's forensic analysers provide quantitative results reflecting the degree of adulteration of the fuels tested, constituting a court admissible evidence that does not require any additional validation. These analytical properties are unique in the market of fuel integrity solutions.

Depending on the level of severity and recidivism, there are 3 types of sanctions put in place by the government: warning, temporary closing of the gas station / fine, and definitive closing of the station.

A fixed central laboratory is available at the Ministry of Energy and Mineral Development (MEMD) in the capital city of Kampala. The mission of this central lab is to provide OMCs with sample control to verify the conformity of their products before delivery, and to further investigate non-complying samples collected during field inspections.



END-TO-END MONITORING AND REPORTING PLATFORM

Monitoring of marking operations and field inspections provides the authority with unmatched visibility, both on fuel volumes intended for domestic consumption and their associated tax revenues, as well as on geographical distribution of non-conformities.

Analysing alerts and detecting patterns of fraud allows for a more strategic and optimised use and planning of enforcement resources.

This is a highly strategic tool to evaluate and monitor the impact of fuel marking programs.

KEY NUMBERS

250

More than 250 trucks are marked per day.

2.3 BN

2.3 BN liters of hydrocarbon products are marked per year.

70

Employment of 70 skilled local employees and fully trained fuel marking technicians dispatched across the 4 marking sites.

A SELECTION OF KEY ACHIEVEMENTS

510 %

Since the introduction of the Fuel Integrity Program (FIP), annual Petroleum Duty collections have increased by an average of 510 percent.

— URA, Uganda – petroleum duty

24 %

Already in the first year of operation, an increase of 24 percent was recorded. Petroleum Duties reached an all-time high in 2020/21.

— URA, Uganda – dynamism of petroleum duty

<1 %

The Uganda National Bureau of Standards (UNBS) emphasizes that, prior to the Fuel Integrity Program, fuel adulteration rates were 30 percent, whereas today they are less than 1% .

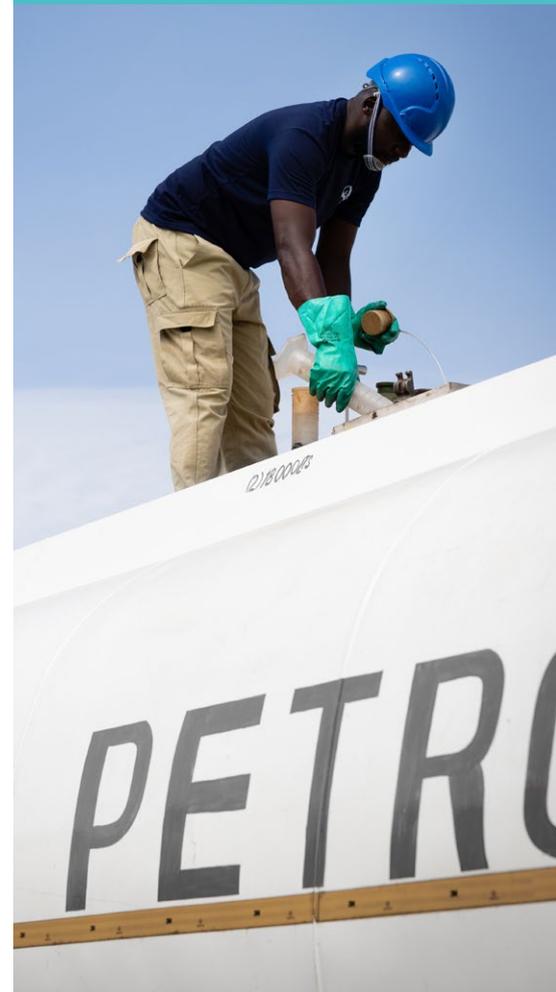
— <https://blog.unbs.go.ug/?p=12413>
— <https://www.petrolworld.com/africa-middle-east/item/30643-uganda-govt-bars-45-erring-fuel-service-stations>

80 %

Up to 80% of gas stations are inspected by SICPA's fully equipped mobile laboratories each month.

SICPA invested in Uganda through the provision of the required infrastructure to operate, support, and maintain the implemented solution at the country level.

Dedicated engineers carryout trainings and ensure immediate support and effective maintenance of the installed equipment.



Learn more about the solution



SICPA, enabling trust

SICPA is a recognised global expert in digital and physical security, traceability and integrity solutions. The company is a valued partner in the sphere of trust since its foundation in Switzerland in 1927, working with governments, central banks and private sector organisations. Every day, millions of people rely on SICPA's solutions to protect the integrity of their currency, preferred brands and products, personal identity documents and credentials. Through constant innovation, SICPA ensures that trust lies at the heart of everything it does.