



UGANDA NATIONAL BUREAU  
OF STANDARDS

# 3RD INTER LABORATORY COMPARISON PROGRAM 2023



## 01 What is Inter-Laboratory Comparison (ILC)?

According to ISO/IEC 17043:2023 Conformity assessment – General requirements for competence and impartiality of proficiency testing (PT), an Inter Laboratory Comparison is the organization, performance and evaluation of measurements or tests on the same or similar items by two or more laboratories in accordance with predetermined conditions.

## 02 Why is ILC important?

ILC is one of the methods used to demonstrate competency and validate a laboratory's measurement process for a particular measurement discipline. ILC participation therefore provides a quality assurance tool to laboratories for comparing performance and taking necessary remedial action to facilitate improvement, with an aim of producing accurate and reliable test/calibration results.

## 03 Benefits of participating in an ILC.

### To the business Community:

1. Business opportunity to invest in product testing.
2. Builds confidence and trust in supplier's certificates thereby reducing technical barriers to trade especially where goods have to go through another sampling and testing at the destination.
3. Creates a level playing ground for all laboratories in the same testing capacity.
4. Demonstrates good performance and competence of the laboratories, which puts the laboratory at an advantage to acquire and maintain recognition.
5. Reduces technical barriers to trade especially where goods have to go through another sampling and testing at the destination. Quality assurance of goods and services.
6. Quality control of manufactured goods during the manufacturing process and along the supply chain.
7. Risk assessment and management.
8. Aids in failure investigation and resolution of complaints and disputes

### To Consumers:

1. Consumers will have access to better, safe and quality products and services since the results are from credible laboratories. Consumers have particular interests in the safety and performance of products.

## 04 To UNBS

1. Builds confidence and trust in the laboratory test results thus allowing UNBS to use credible laboratories in fulfilling its mandate.
2. Reduces turnaround time in acquiring credible test results by having a number of laboratories that can perform similar tests with similar test results.
3. Demonstrates good performance and competence of the laboratories, which puts the laboratory at an advantage to acquire and maintain recognition nationally, regionally and internationally.
4. Detecting method related issues and taking mitigation measures.
5. Allows for comparing the various analytical methods and selecting the most accurate methods.
6. Enables generation of reference materials for methods monitoring

## 05 Who qualifies for the ILC?

This round of ILC exercise is highly recommended for all public/private commercial testing and calibration laboratories and laboratories within manufacturing facilities with in house laboratories that fall under the scope of the ILC irrespective of size.

## 05 How to participate?

Acquire the ILC registration form from the UNBS website [www.unbs.go.ug](http://www.unbs.go.ug) or click link below: [bit.ly/ilc-registration](https://bit.ly/ilc-registration) and submit to the ILC Coordination desk using email: [ilc@unbs.go.ug](mailto:ilc@unbs.go.ug) before 30th September 2023. Upon receipt of your filled in application forms, a payment notification will be issued to you against which payment will be made through the URA online payment platform for the matrices of your choice.

## 06 Parameters to be tested?

The scope of ILC this year will focus on 10 matrices under testing laboratories; Maize flour, UHT Milk, Potable Water, Non-carbonated soft drinks, Cosmetics, Roasted Coffee, Paint, Animal feeds, Cement and Steel bars as detailed in table.

## SCOPE OF THE 3RD ROUND OF INTER LABORATORY COMPARISON FY 2022/2023

PT Matrix Group	Parameters of test	Participation fee (UGX)
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### CHEMISTRY AND MICROBIOLOGY TESTING

Non-carbo nated soft drink	Brix, Cadmium, Lead, Total plate count, Total coliform count, E.coli, Yeast & mould count	240,000
Cosmetics	Hydroquinone, pH, mercury, lead, Total fat (TFM)	240,000
Water	PH, Conductivity, Chlorides, Calcium, Nitrites, Nitrates, Lead, Cadmium, Arsenic, Total plate count, Total coliform count, E.coli, Intestinal Enterococci	240,000
Coffee	Acid Insoluble Ash, Ash content, Moisture content, Ochratoxin A	240,000
UHT Milk	Moisture content, Ash content, Acid Insoluble Ash, Fat acidity, Total aflatoxin, Aflatoxin B1	240,000
Maize Flour	PH Variation, Variation of Titrate able Acidity, Fat, Density and Total Solids, Total plate count, Total coliforms	240,000
Paint	PH and Total Soluble Solids	240,000
Animal feeds Poultry feed	Fat, Total ash, Acid insoluble ash, Moisture, Calcium, Phosphorous, Zinc	240,000

**Note: Participate in 5 matrices and above get a 100,000UGX deducted from the total amount.**

### ENGINEERING TESTING

Steel bars (10mm, 12mm 16mm, 20mm, 25mm)	Tensile strength, Yield strength and weight per meter	240,000
Cement	Compressive strength, Setting time	240,000

## 08 Key points to note

When testing and calibration is done by other laboratories aside from UNBS labs, whose results are to be used by UNBS in fulfillment of its mandate, then there is need to ensure that the laboratories consistently demonstrate competence by ensuring that the laboratories participate in Proficiency testing (PTs) schemes and Inter Laboratory Comparison (ILC) programs recognized and or organized by UNBS. In addition, participation in PTs and ILC s is one of the requirements of the UNBS Laboratory recognition scheme and accreditation to ISO/IEC 17025 (General requirements for the competence of testing and calibration laboratories).

Currently, most laboratories have challenges finding affordable and available PTs/ILCs in and around Uganda. ILC is one of the methods used to demonstrate competency and validate a laboratory's measurement process for a particular measurement discipline. ILC participation therefore provides a quality assurance tool to laboratories for comparing performance and taking necessary remedial action to facilitate improvement, with an aim of producing accurate and reliable results.



**#QualityEverywhere**

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