

Journal

RWANDA

STANDARDS

ISSUE 18-OCTOBER 2019 | NOT FOR SALE

ACHIEVEMENTS

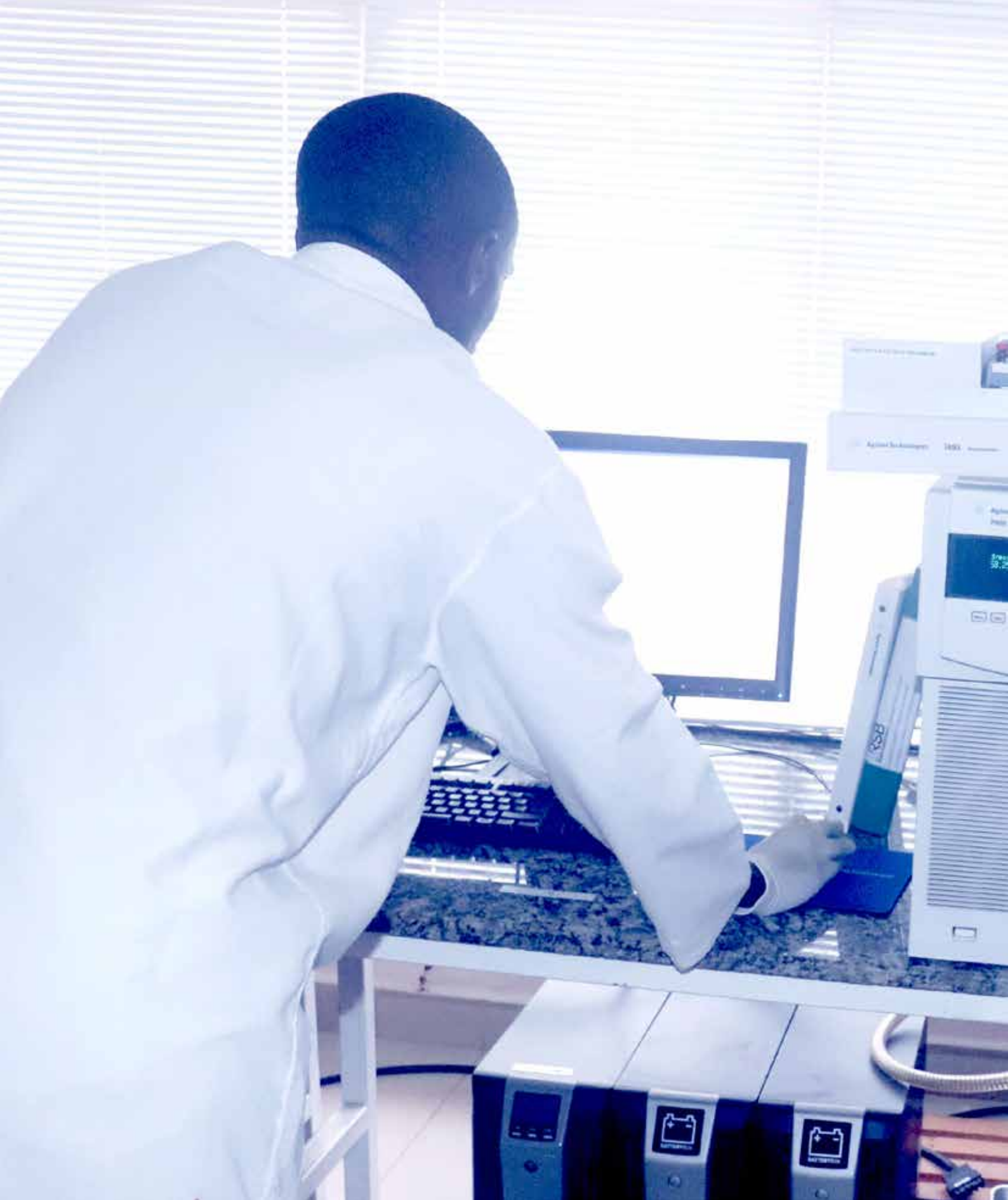
IN STANDARDS DEVELOPMENT,
TESTING, CERTIFICATION AND
METROLOGY

STAKEHOLDERS

VIEWS

CONSUMERS

SPEAK OUT





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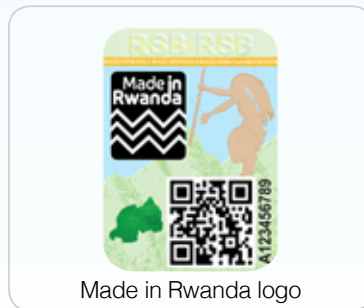
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RSB CERTIFICATION MARKS





FOREWORD



Welcome to this edition of the Rwanda Standards Journal focusing on standardization achievements in the Fiscal Year 2018 / 2019. In line with RSB mandate of developing, publishing National Standards, carrying out research in the areas of standardisation, disseminating information on standards, offering Conformity Assessment and Metrology services, the Fiscal Year 2018 / 2019 was quite an eventful year.

Standards are benchmarks for quality and safety. They facilitate trade by enhancing product performance, safety, productivity and customer confidence in the product or service. They are vehicles for dissemination of knowledge, innovative

advances in technology, and sharing of good management and conformity assessment practices. To date, 2578 standards have so far been developed; in the last fiscal year alone RSB developed 153 new standards, 56 standards were reviewed and 101 standards were harmonized. Details on the standards fields are provided inside the journal.

With the aim to support trade, industry and consumer protection through providing quality testing services, RSB has established National Quality Testing Laboratories. The tests are carried out against national standards, international standards as well as specific government and other client specifications. We have continually increased the number of testing laboratories and equipment: From only four laboratories in 2010 (Microbiology, Inorganic Chemistry, Organic Chemistry and Food and Agriculture laboratories) to 12 laboratories in 2018/2019 (Microbiology, Inorganic Chemistry, Organic Chemistry, Food and Agriculture, Petroleum, Mycotoxin, Building Materials, Polymer and Leather, Non Destructive, Destructive Mechanical, Pharmaceutical active ingredient, Pharmaceutical elemental and inorganic impurities). The laboratory testing scope increased from 160 parameters in the fiscal year 2011/2012 to 368 parameters in 2018 /2019 and the number of samples tested per annum increased from 2,746 samples in 2013 to 4,864 in 2018/2019. The laboratories are digitalized and Food and Agriculture, Mycotoxin and Chemistry laboratories have acquired international accreditation.

Also, in compliance with the East African Community Standards Act of 2006, in 2017, RSB built the capacity of 13 private testing laboratories and those laboratories were designated by the Ministry of Trade and Industry as testing facilities fulfilling the requirements of ISO 17025, the International Standard for proper functioning of testing laboratories. The

exercise of capacity strengthening and designation of local laboratories continues. In the Fiscal Year 2018/2019, RSB conducted awareness and capacity building for 25 private laboratories, laboratories were assisted in documents development process and 11 submitted their document to RSB for review prior to the designation decision. The practice aims to ease access to competent and well functioning testing facilities to boost industrial compliance with standards and promote trade and research, among other aspects.

More still, on Metrology services, 4340 equipment from industry and other service providers were calibrated in the fiscal year 2018 / 2019 as opposed to 3688 equipment in the Fiscal Year 2013/2014. Also, 8367 measuring instruments used in trade including fuel dispensers, trade weights, balances, energy meters etc; and those used in the medical sector such as medical equipment were verified to ensure public safety and promote fair trade. To ensure measurement traceability and acceptability, Metrology laboratories of Mass, Balance and Temperature have acquired international accreditation.

In the same fiscal year, thanks to Private Sector engagement in having their products and services certified, we continued to see a diversification of certified products. Contrary to the year 2010 when only two products had acquired standardization mark, commendable increase has been observed in the years that followed. In the Fiscal Year 2013/2014, there were 59 new products certified and 18 products re-certified by RSB; and the certification trend followed the same incremental track to have 154 new products certified and 113 products re-certified during the Fiscal Year 2018/2019. We highlight the product diversification whereby in the beginning only food and feeds products including cereal based products, fruits based processed products, milk and milk products, water, alcoholic drinks, non-alcoholic

soft drinks, nuts, honey, coffee, tea and animal feeds were certified; but since 2013 there has been diversification in certified products. RSB has certified products in different areas such as construction materials; including cement, steel bars, iron sheets, pipes, bricks, tubes, sections, profiles; chemical products including cosmetics and detergents, liquid soaps, consumer products such as mattresses and others; agrochemical products such as pesticides; and paper based products including toilet papers, sanitary towels, etc.

Besides product certification, RSB also offers system certification services. The services are offered in Quality Management Systems (QMS), Hazard Analysis and Critical Control Points (HACCP), Food Safety Management Systems (FSMS) and Environmental Management Systems (EMS) and Occupational Health and Safety Management Systems (OHSMS). With the first system being certified in May 2011 against ISO 9001-Quality Management Systems, in 2012 RSB entered into partnership with British Standards Institution (BSI) under the support by Trade Mark East Africa to support SMEs in Agro-processing to acquire system certification. As a result, after capacity building process, in December 2014 the first local firms acquired certification against HACCP. To date 52 systems have been certified; 47 companies hold valid certificates whereas certification was withdrawn from five (5) non-complying companies.

We are grateful for the unwavering support of Government of Rwanda to standardization activities through the work of various institutions in the public sector, Private Sector Federation, Civil Society and consumers.

Enjoy reading.....

Raymond MURENZI

Director General

RSB PROMOTING TRADE THROUGH STANDARDIZATION

In a bid to understand the achievements in standardization the Rwanda Standards Journal had an encounter with Mr. Raymond Murenzi, the Director General of RSB. Below are the excerpts



Q Briefly take us through the activities of RSB

A Our mandate as Rwanda Standards Board (RSB) is to establish and publish national standards, participate in standardization at regional and international levels, disseminate information on standards, promote safety and consumer through standardization activities, provide Metrology services and offer conformity assessment for products and services' quality and safety through quality testing and certification.

Q In line with your role of developing new standards, reviewing them and harmonizing them how has RSB performed over the year 2018 / 2019? What has been the trend over the past five years?

A Standardization services begin with developing new standards. During the fiscal year 2018/2019, Rwanda Standards Board developed 153 new standards, reviewed 56 standards to ensure they are up to date and fit their purpose, and harmonized 101 standards in the areas of foods and agriculture, chemistry, packaging, textiles, LPGs, milk and milk products, environmental protection, engineering and cosmetics.

To date, RSB has developed a total number of 2578 Rwanda Standards. These standards support the economy in terms of compliance and safety to mention but a few.

Over the same period, RSB also participated in 28 international standards setting projects, which is

an opportunity to have Rwanda's input and voice heard in order to increase market access for Made in Rwanda products. We look forward to adding more standards and participating in more international standards setting activities.

Q RSB has carried out training and awareness campaigns on standardization and other services offered. Why do you organize these campaigns?

A It would be no use to develop, review and harmonize standards without getting them used effectively and profitably. In line with our mandate to disseminate information on standardization, RSB conducted training and awareness of standards, both new and existing; and engaged the private sector, industries and SMEs to improve their standards uptake and ensure standards developed contribute in producing quality, safe and competitive products.

Trainings and awareness campaigns are not only done for standards alone but also for other services we offer. We raise awareness of the stakeholders and the public at large so as to inform them of the available products and services and to ensure they use them.

Q RSB has gradually increased the scope and samples tested by the National Quality Testing Laboratories. What does this mean for Rwanda?

A During the Financial Year 2018-2019, RSB added five physical parameters related to Paints; (Density and Permeability, Viscosity of paints, Drying time/ Fineness of grind of paints, Gloss value of paint and Abrasion of coating), upgrading electrical cables by adding one new parameter (Resistance of electrical Cables) and textile and packaging materials by adding four new parameters (Resistance to water penetration of textile and packaging material, Colour fastness to perspiration, Colour fastness to light and the Determination of color of textile).

By June 2019, RSB laboratories tested 4,864 samples of assorted products, and other 40 samples were

tested in medical and pharmaceutical laboratory. Medical and Pharmaceutical laboratory has since been transferred to the Rwanda Food and Drugs Authority (RFDA).

In compliance with the East African Community Standardization, Quality Assurance, Metrology and Testing (SQMT) Act 2006 requesting Members to designate Testing Laboratories to provide scientific and technical services to perform conformity assessment services for technical regulation or compulsory standards, RSB conducted awareness workshop on laboratory designation regulation for 25 Laboratories and 10 laboratories were pre-assessed, 14 External laboratories trained on ISO/IEC 17025 & 19011 and assisted in documents development process and among those 14 laboratories, 11 Laboratories submitted their document to RSB for review.

We have continued to build capacity for the laboratories as part of the accreditation process. Laboratories also participated in the Proficiency Testing exercises.

Q How do you see the evolution of RSB Testing Laboratories?

A The Testing Laboratory was established as a unit in 2002. At the time, most of parameters were subcontracted to Kenya Bureau Standards (KEBS) and other laboratories in the Region. Between 2002-2006, the laboratory could only test 60 parameters and most of them were being tested using old test methods since there was no up - to - date equipment in place.

In 2006 when the laboratory acquired some modern equipment, 600 samples were tested.

Today, the laboratories have acquired high technology equipment, easing the ability and capacity to perform their duties. In the fiscal year 2018-2019 the total number of samples tested in the National Quality Testing Laboratories was 4250. This is good progress made.

Q You are mandated to provide products and systems certifications and monitor conformity for issued certifications. How did you fair in this regard over the year 2018/2019? Are you seeing an increase in uptake so far?

A Yes, there is tremendous increase in products certification. In the fiscal year 2018/2019, 154 new products were certified. Those are in the areas of foods and foods products, milk and milk products , coffee and tea, liquors (Gins, Whiskey, Vodka and Brandy), Banana based alcoholic beverages and plant based alcoholic drinks, beer, construction materials including electrical cables, papers and paper bags, honey, school chalks and cosmetics.

We appreciate the efforts by industries to get their products certified, because certification is the key to market access and consumer confidence. Food safety certification services, namely Hazard Analysis and Critical Control Points (HACCP) and Food Safety Management Systems aquired international accreditation. Also, activities to monitor quality compliance for certified products were conducted.

Also, we are continuing to build capacity and expand the accredited schemes and scope. Assessment was done pending accreditation decision.

At the end of June 2019, thirteen (13) new Systems (10 HACCP & 3 QMS) were certified making a cumulative number of 52 companies with certified systems. In addition 6 Systems (1 QMS & 5 HACCP) were re-certified over the same period.

Q In terms of providing legal, scientific and industrial metrology services. Share with our readers what they are and why?

A During the Financial Year 2018-2019, RSB's target was to calibrate 2,400 equipment. At the end of June 2019, 4,340 measuring equipment used in industries and trade transactions were calibrated.

We are happy that stakeholders in the industry, health sector and other sectors using measuring instruments are continually embracing the good practice to get their equipment calibrated. We also keep up with awareness arising on metrology services.

Likewise, the continual increase in verification of measuring equipment was observed. During the Financial Year 2018-2019, the targeted number of measuring instruments used in trade and medical sector to be verified was 6299; at the end of June 2019, 8367 instruments were verified including fuel dispensers, trade weights, balances, and medical equipment and energy meters.

Q RSB has undertaken a deliberate effort to increase capacity of laboratories to be able to carry out tests and offering testing services. As a result some of the RSB laboratories in have been accredited. Why this decision?

A Establishing good laboratories and with high technology equipment is not enough. To ensure laboratories function in accordance with international standards and can truly help the business sector to grow, RSB went for accreditation of its laboratories and 3 quality testing laboratories: as well as 3 Metrology laboratories (Mass, Balance and Temperature) have been internationally accredited. The journey to get more laboratories accredited continues.

Our laboratories participate in measurement laboratory intercomparisons to ensure the sustainability of accurate measurements they offer.

This ensures that our laboratories perform in accordance with international standards and assured are their accuracy, sustainability and support businesses.

© RSB has of recent undertaken digitalization of her services and more so the recent introduction of the track and trace system. Can you elaborate further on these initiatives and why?

▲ Digitalizing our services has long been a major concern to us. We started with interlinking internal processes through putting in place digital systems that facilitate the interfacing our services; including the Laboratory Information Management System (LIMS), to ensure Information Technology helps traceability, interoperability and fast-tracking of the laboratory tests.

Further, an Information Management System (IMS) was introduced to ensure linkage between technical and support services.

After harmonization of internal processes, we thought about harmonizing customer services, and the latest addition to our digitalization is the Track and Trace System. Track and trace system is a technology-based system that will provide consumers with all information they need on specific products using their mobile phones, website tools. It is a quality assurance mechanism for domestic products, services and imports, enhances traceability, increase consumer confidence in products, facilitate regulators work during inspections. The system is consumer-friendly as it opens up opportunity for them to play a role in checking on the safety of traded products on the market.

© On an ending note, what have been the undertakings to ensure the institution is well positioned at international standardization arena?

▲ Standardization is all about linking the domestic market with global market through setting up standards that permit product quality, safety, market access and competitiveness. The ultimate goal thereof is to ensure that services offered by the standardizing body are internationally accepted and trusted; and this is achieved through two fold

means: participating in international standards setting activities and getting your services certified and accredited.

To achieve this, RSB acquired certification against ISO 9001, a Quality Management System standard. This international certification was given by the DQS a German Certification Body and one of global leading standardization organizations. This achievement helped our services to be recognized and trusted internationally.

In addition, our Metrology and quality testing laboratories acquired international accreditation from DakkS (the German Accreditation Body) to ensure that their workings comply with the requirements of ISO 17025 standard establishing requirements for testing laboratories.

Further, competitiveness of locally made products is a result of trust and assured quality at foreign markets. In this regard, our food safety certification services (Hazard Analysis Critical Control Points-HACCP and Food Safety Management System-FSMS) have acquired international accreditation by RvA, the Netherlands and also one of global leading accreditation bodies.

We continue to upgrade the accredited scopes to ensure that Made in Rwanda products access markets and are equally competitive at any market where they are exported. We also are happy that local industries and service providers are using these internationally accredited facilities to show the world that what they do is trustworthy.

Lastly, we are grateful to the Government of Rwanda's efforts to support standardization activities, partner institutions, Civil Society, Private Sector Federation, Manufacturers / Industries, consumers and the media.

NATIONAL STANDARDS DIVISION

CONTRIBUTING TO STANDARDS DEVELOPMENT, STANDARDS REVIEW AND HARMONIZATION



National Standards Division's work is centered on standards development, standards review and harmonization.

In the fiscal year 2018/2019, the National Standards Division set out to develop 70 new standards in the areas of foods, agriculture, chemical, consumer products, engineering (Urban planning and metrology), mosquito repellents, environmental

protection and water quality, Good Agricultural Practices and furniture.

At the end of the fiscal year, 153 new standards were developed representing 254% of targeted new standards to be developed. The cumulative number of new standards developed up to the end of 2018-2019 fiscal year is 2578 standards.

STANDARDS REVIEW

The Division targeted to review and approve 60 Rwanda Standards in the areas of engineering, road vehicles, foods, chemical, consumer product, milk and milk products and environmental protection. During the fiscal year 2018-2019, fifty-six (56) standards were reviewed and approved representing 93.3% of what was planned.

STANDARDS HARMONIZATION

The targeted number of standards to be harmonized was 50 standards; and 101 standards were harmonized including standards in foods and agriculture, chemistry, packaging, textiles, LPGs, milk and milk products, environmental protection, engineering and cosmetics. The target was overachieved especially due to requests of new standards, and harmonization activities which are not under RSB control.

Summary of developed standards in the year 2018/2019

	Number of Standards		%
	Planned	Achieved	
New Standards (Standards of Rwanda Origin + Adopted International Standards)	70	153	254
Reviewed Standards (Standards of Rwanda Origin + Adopted International Standards)	60	56	93.3
Harmonized Standards (East African Standards + African Organisation for Standardisation)	50	101	202

NOTE

New and reviewed standards include:

1. Standards of Rwanda Origin
2. International Standards
 - ASTM Standards adopted as Rwanda Standard
 - ISO Standard adopted as Rwanda Standard
 - Codex Alimentarius Commission Standards adopted as Rwanda Standard
 - ISO/IEC Standard adopted as Rwanda Standard

- OIML Standards adopted as Rwanda Standard
- IEC Standards adopted as Rwanda Standard
- AOAC Standards adopted as Rwanda Standard
- IEEE Standards adopted as Rwanda Standard

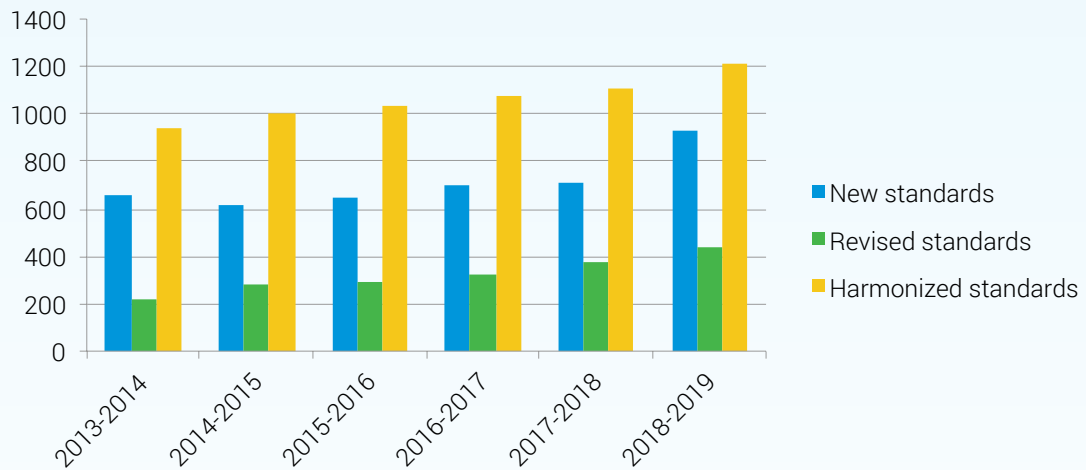
Harmonized standards include:

1. East African Standard adopted as Rwanda Standard
2. ARSO Standards adopted as Rwanda Standard

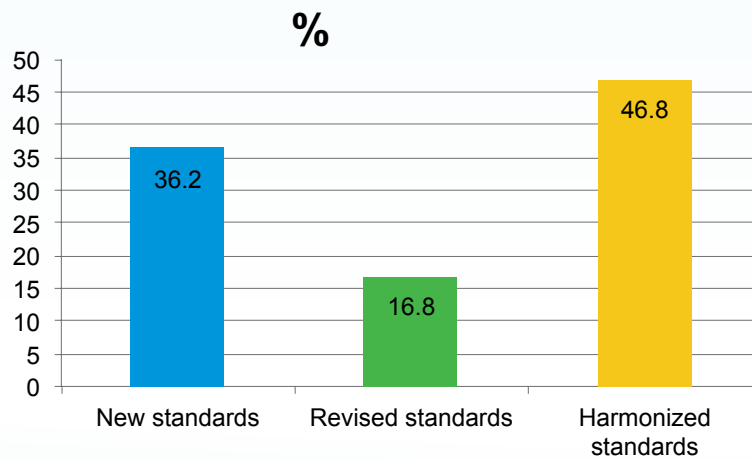
Table of standards developed, reviewed and harmonized

		2013 -2014	2014 -2015	2015 -2016	2016 -2017	2017 -2018	2018 -2019	%
1	New standards	657	616	651	697	711	934	36.2
2	Revised standards	221	280	295	323	379	435	16.8
3	Harmonized standards	943	998	1033	1074	1108	1209	46.8
4	Cumulative number of standards	1821	1894	1979	2094	2198	2578	100%

Graph showing standards developed from financial year 2013-2014 to financial 2018 – 2019



Graph showing rates of developed standards in percentages





PARTICIPATION OF RSB IN INTERNATIONAL STANDARDIZATION ACTIVITIES

PROMOTING REGIONAL AND INTERNATIONAL TRADE



Rwanda Standards Board participates in regional and international standardization activities by taking part into Standards setting and Standards harmonization processes among other standards based cooperation activities.

Participating into Regional and International standardization activities has significant advantages to Rwanda, including:

- Representing Rwanda into Regional and International Standardization activities.
- Removing barriers to Regional and International trade.
- Influencing Regional and International Standards development process.
- Creating Regional and International Pathways and Market.
- Avoiding the waste of resource by “reinventing the wheel”.
- Improvement of doing business.
- Transferring and acquiring state-of-the-art technological know-how.
- Safeguarding public health and safety by establishing a base of requirements for application to local or imported products in these regulated areas.

During the fiscal year 2018/2019, RSB participated in 19 international standardization activities as listed below:

1. ISO/CD 712 Cereals and Cereals Products- Determination of moisture content
2. ISO/CD 7301 Rice-Specification
3. ISO 13580:2005(vers 3) Yogurt-Determination of total solids content
4. ISO 14675:2003(vers 3) Milk and milk Products- Guidelines for a standardized description of competitive enzyme Immunoassays- Determination of aflatoxin M1 content
5. ISO 18330:2003 (vers 3) Milk and milk Products- Guidelines for the standardized description of immunoassays or receptor assays for the detection of antimicrobial residues
6. ISO 17189:2003 (vers 3) Butter, edible oil emulsions and spreadable fats –Determination of fat content (Reference method)
7. ISO 16305:2005 (vers 3) Butter-Determination of firmness
8. ISO/DIS 20984 Cornelian Cherry-Specification and test methods
9. ISO/DIS 20981 Asparagus –Specification and test methods
10. ISO/NP 24220PAOCAI (Salt fermented Vegetables)-Specification and test methods
11. ISO/TS 22003 Food safety management Systems-Requirements for bodies providing audit and certification of food safety management systems –Part2: Requirements for bodies providing audit and certification of food safety management systems or food safety product/Processes
12. ISO NP 22003-2 Food safety management Systems-Requirements for bodies providing audit and certification of food safety management systems- Part 2: Requirements for Bodies providing audit and certification of food safety management systems or food safety product/Processes
13. ISO DTS 26030 Social responsibility and Sustainable development –Guidance on using ISO 26000:2010 in the food chain
14. ISO WD 45003-2018 Occupational health and safety management – Psychological Health and Safety in the Workplace – Guidelines
15. ISO DIS 14090 Adaptation to climate change – Principles, requirements and guidelines
16. ISO WD 31800 Clean Water and Sanitation - Ensure availability and sustainable management of water and sanitation for all
17. ISO CD 21631 Essential oil of the clementine mandarin (*Pampinellaanisum L.*)
18. ISO CD 3475 Essential oil aniseed (*Pampinellaanisum L.*)
19. ISO DIS 3140 Essential oil of sweet orange (*citrus sinensis L.*)

FORMATION OF NATIONAL QUALITY COUNCIL AND STANDARDS STAKEHOLDERS FORUM

IMPROVING STAKEHOLDERS ENGAGEMENT IN STANDARDIZATION ACTIVITIES



Rwanda is member of World Trade Organization (WTO) since 1995 and has joined Regional Economic Communities including EAC, COMESA and CEPGL which opened up access to wider markets and ultimately increasing demand for safe and quality products and services.

Rwanda has also signed several free trade agreements to benefit from advantages offered by the multilateral trading system.

In order for Rwanda to have competitive products and services and fully participate in regional and international trade, the country has embarked on the restructuring and reengineering of its National Quality Infrastructure (NQI) and its technical regulation

framework to harmonize with those of its trading partners and to cater for technological and quality needs, minimize environmental, health and safety risks while avoiding inefficiency, conflict of interest, unnecessary and costly barriers to trade through development of a sound Quality Policy.

In the fiscal year 2018-2019, envisioned to form the National Quality Council and Standards Stakeholder Forum and improve Stakeholder engagement in Standardization activities and National Standards Stakeholders Forum (NSSF) and National Quality Council (NQC). A stakeholders' meeting was conducted on 11/6/2019, pending nomination of members by the Minister of Trade and Industry.



ZAMUKANA UBUZIRANENGE

PROGRAM IN POSITIONING SMES FOR CERTIFICATION



On the ground of Made-In-Rwanda philosophy, Rwanda Standards Board (RSB) introduced a new food safety performance system, Food Safety (FS) maturity model referred to as 'Zamukana Ubuziranenge Program. This program systematically develops and supports food processing SMEs to reach the desired quality and safety performance but also build a strong food safety culture in SMEs.

The Food Safety maturity model serves as a strategic tool that benchmarks a particular company's food safety management system but also serves as Performance Measurement Systems (PMS) implying that SMEs are evolving and transformed from lower food safety performance to the better level. In addition, it gives food businesses a clear picture of both strengths and weaknesses within their food safety management system, giving insights on the potential needs for changes and adjustment.

The maturity model recognizes systems problems and factors which are involved in attaining food safety goals. The key characteristics of the model is that it reflects the company's status in terms of standards or procedures' compliance and robustness of food safety systems in comparison with where it is targeting to be. It also maps where food business think they are currently against where they actually are, which is eventually the gap in the food safety systems helping in the development of improvement roadmap.

From this background, it should be understood that every SME in the food industry is supposed to be in a particular food safety maturity level depending on the results of Performance Measurement Systems (PMS).



The 'Zamukana Ubuziranenge Program' is linked to the existing RSB certification systems. This is because it prepares food SME's to enter into products (S-Mark) and systems certification (HACCP & FSMS) schemes. The standards requirements are structured in a way that consider the context and nature of food SMEs and are associated with different Food Safety performance levels.

For each maturity level, the model defines the key measurable factors and tools that a company needs to move from lower Food Safety performance to the higher. In the event that a company's Food Safety performance level has been established, there would be a time allowed to stay at this stage to build a strong foundation which will help food SME to move to the better Food Safety performance level.

This level can also be used to develop Food Safety improvement roadmap using key measurable factors and tools of the upper level. Each standard level has the minimum requirements which an SME needs to

fulfil so as to be qualified to that particular level and encourage further growth. The rules and conditions for recognition and certification are based on the Food Safety maturity grid covered in the procedure.

During the fiscal year 2018/2019, 82 Small and Medium Enterprises (SMEs) were identified, 65 SMEs trained, 14 SMEs positioned and recommended for certification and three (03) SMES were certified.

In order to equip SMEs with the required skills in the respective production lines they are engaged in, 25 Graduates were trained and placed in SMEs in order to offer them with technical support in production.

From fiscal year 2019/2020, Zamukana Ubuziranenge program support was extended to other sectors stipulated as priority sectors in the Made in Rwanda policy; Wood and wood products, leather, agricultural products, textile and garment, soaps, detergents, cosmetics, saloons, etc.

THE EVOLUTION OF TESTED SAMPLES OVER THE YEARS 2006-2019



The National Quality Testing Laboratory (NQTL) services are offered mainly for the purposes of industry quality control, market surveillance and certification services.

RSB has over the years registered spontaneous increase in samples tested. 42% of the samples tested are for purposes of market surveillance,

33% inspections and 25% of samples tested are for certification purposes.

The number of samples tested have increased from 920 in 2006 to 2,746 samples in 2013; representing an increase of about 70%. The sample growth rates by sector for the period between 2006-2013 are; water 9%, cereals and cereals products 8%, construction materials 10%, and alcoholic drinks have registered an increment of 7%.



This confirms the current importance of these sectors and it is expected that the trend is likely to continue in the next 5 years, especially for Construction industries, cereals as the focus shifts towards other food products, food packaging materials and Environment due to the high industry growth.

At the end of the Fiscal Year 2014-2015, the cumulative number of tested samples was 2,563, fiscal year 2015-2016, samples tested in the National Quality testing laboratories were 2815; 1,234 in Chemical Testing Laboratories, 853 in Biotechnology Testing Laboratories and 728 in Materials Testing Laboratories.

During fiscal year 2016-2017, the target of samples to be tested was 2,815. At the end of June 2017, the total number of samples tested in the National Quality Testing Laboratories was 4,248; 2246

tested in Chemical Testing Laboratories, 1,074 in Biotechnology testing Laboratories and 928 in Materials Testing Laboratories.

Whereas in the financial year 2017-2018, the target of samples to be tested was 4,248, at the end of June 2018 total number of samples tested in the National Quality Testing Laboratories was 4,674; 2062 tested in Chemical Testing Laboratories, 1,413 in Biotechnology Testing Laboratories, 1,131 in Materials Testing Laboratories and 68 in Pharmaceutical laboratories.

In the fiscal year 2018-2019 the National Quality Testing Laboratory target was to test 4674 samples. At the end of June 2019 the total number of samples tested was 4250; 2014 in the chemical testing laboratories, 1132 in Biotechnology testing Laboratories and 40 in pharmaceutical laboratories before this latter was transferred to Rwanda Food and Drugs Authority.

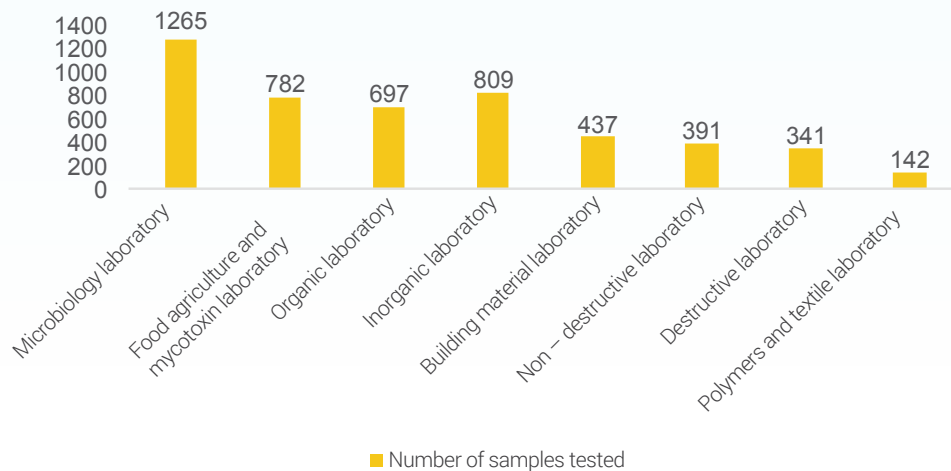


Table showing the evolution of samples tested annually

Years	2005-2006	2006-2013	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Number of samples tested	920	2746	2563	2815	4248	4674	4250

Distribution of samples tested by the laboratory

Laboratory Name	Number of samples tested	Percentage
Polymers and textile laboratory	142	2.92%
Destructive laboratory	341	7.01%
Non-destructive laboratory	391	8.04%
Building material laboratory	437	8.98%
Organic laboratory	697	14.33%
Food agriculture and mycotoxin laboratory	782	16.08%
Inorganic laboratory	809	16.63%
Microbiology laboratory	1265	26.01%
Grand Total	4864	100.00%

Number of samples tested

TREND OF INCREASE IN TESTING PARAMETERS OVER THE YEARS



The Testing Laboratory was established as a unit in 2002 and started with the Rwanda Bureau of Standards (RBS) where most of parameters were subcontracted to Kenya Bureau Standards (KEBS) and other laboratories in the Region. In the Financial Year 2002-2006, the laboratory could only test 60 parameters and most of them were being tested using old test methods since there was no equipment in place.

In 2006 when the testing laboratory acquired the Modern Kjeltec, Soxtec and other equipment, total number of tested samples was 600. The scope of testing increased to 70 parameters, at that time and only four (4) laboratories namely; General Chemistry, Spectroscopy and Chromatography and Microbiology were operational.



In the fiscal year 2007-2008, the Organic Chemistry Laboratories started operating and more equipment procured such as GCECD and HPLC. The scope of testing increased from 70 to 80 parameters and tested samples reached 800.

In the fiscal year 2008-2009, the laboratory started participating in East African Community Proficiency Testing (EAC PT). The scope of testing was 87 and the laboratory tested 920 samples.

Fiscal year 2010-2011 saw the start of the Inorganic Chemistry Laboratories and new AAS with Graphite Furnace, Nitrous Oxide and FIAS installed, more than 20 elements of heavy Metals added to the 107, tested samples reached 1,046. Also, with the introduction of Petroleum laboratory, Destructive testing and civil

engineering, tested samples reached 1,066 and the scope of testing was 113 parameters.

In the fiscal year 2011-2012, Non-destructive testing and Mycotoxin laboratories were added to the scope of testing reached 160 parameters and samples tested were 1,834. Antibiotics residues and Illegal dyes testing was introduced, and Mycotoxin testing scope increased, the tested samples increase to 2,067 and the scope of testing was 180 parameters.

Fiscal year 2013-2014 saw the start of the packaging materials testing laboratory and the scope of testing increased to 200 parameters and the number of tested samples was 2,888. Operational laboratories increased to 10 from four (04) in 2006.



During the fiscal year 2014-2015, 25 new parameters were added making a cumulative number of 225 parameters, then in the fiscal year 2015-2016, 30 new testing parameters were added to the existing scope to make it 255 parameters cumulatively.

In the fiscal year 2016-2017, with the installation of the pharmaceutical testing laboratory, the scope was increased by 34 new additional parameters, making a cumulative number of 289 parameters.

In the fiscal year 2017-2018 with the installation of other equipment in pharmaceutical testing laboratory, the number of parameter increased by 66 and the cumulative number of parameters was 355 parameters. 13 new parameters in the areas of electrical, paints and textile have been added during 2018-2019 financial year which gives a cumulative number of 368 parameters to date.

Table showing the evolution of National Quality Testing Laboratory Division laboratories testing scope

Years	2002-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Number of parameters	60	70	80	87	107	112	160	180	200	225	255	289	355	368



NATIONAL QUALITY TESTING LABORATORIES

LABORATORY ACCREDITATION AND PROFICIENCY TESTING



Rwanda Standards Board National Quality Testing Laboratories were internationally accredited by the Dutsch Accreditation Council (RvA), the National Accreditation Body for The Netherlands and one of global leading accreditation bodies.

The accreditation covers the biochemical laboratories (Microbiology laboratory, Food, Agriculture and Mycotoxin Laboratory and Inorganic

Chemistry Laboratory). It attests that the mentioned laboratories have demonstrated trustworthy competence to generate technical valid results in a competent way and work in accordance with the requirements of the management system based on EN ISO/IEC 17025:2005 standard on General Requirements for the Competence of Testing and Calibration Laboratories .

Laboratory accreditation is the basis for attesting that services offered are internationally recognized and laboratories offer trusted test results. This is the basis for customer confidence and assuring customers that the National Quality Testing Laboratories offer services in accordance to International Standards and that the results generated are accepted and trusted worldwide.

The accreditation of RSB National Quality Testing Laboratories covers important test parameters for food and feed products, environment samples and drinking water. 10 parameters in microbiology, food chemistry and civil engineering laboratories were accredited, the targeted activities are: Laboratory registered for accredited PT schemes, 10 Methods verified, Application for accreditation of 10 parameters submitted, 10 parameters assessed for accreditation and the following have been done:

Laboratory registered for LGC (Laboratory of the Government Chemist-UK) and FAPAS (Food Analysis Performance Assessment Scheme-UK) PT schemes. 10 test methods verified with the aim to add on the accreditation scope.



LIST OF PARAMETERS PLANNED FOR ASSESSMENT TOWARDS ACCREDITATION

1. Yeast and Moulds in milk
2. Yeast and Mould in maize flour
3. Yeast and Mould in soft drink
4. Aflatoxin M1 in milk
5. Aflatoxin B1 in maize flour
6. Total Aflatoxin in maize flour
7. pH in water
8. Lead in Water
9. Cadmium in water
10. Compressive strength of cement

PROFICIENCY TESTING

During the financial year of 2018-2019, the following proficiency testing activities were planned:

PT Notification preparation,

PT samples on Sugar and bar soap procurement,

PT Samples on Sugar and bar soap dispatch and PT Evaluation conduction.

In this perspective, 13 Proficiency Testing (PT) notifications were prepared and communicated to potential laboratories, PT samples on sugar and bar procured, prepared and dispatched to different laboratories in EAC, Invitation for PT evaluation prepared and sent to the participant, PT evaluation workshop conducted/ Hosted by RSB, PT report for EAC countries in place.

DESIGNATION OF EXTERNAL TESTING LABORATORIES

BRING TESTING SERVICES CLOSER TO PEOPLE



The East Africa Community Standardization, Quality Assurance, Metrology and Testing (SQMT) Act of 2006, especially in its Article 12 stipulates that Partner States may establish or designate Organization to function as Testing Laboratories to provide scientific and technical services and perform conformity assessment services for technical regulation or compulsory standards.

The recently approved East African Community Standardization, Quality Assurance, Metrology

and Testing (designation of Testing Laboratories) regulation, requests that the Minister responsible for the implementation of the SQMT shall designate approved National Quality Testing Laboratories on the advice of the National Standards Body. In the case of the Republic of Rwanda, these powers are vested in the Ministry of Trade and Industry.

The EAC Testing Technical Sub-Committee (EAC-TTSC) has developed a procedure with criteria to be used for designation process of testing laboratories in Partner States based on ISO/IEC 17025, General



requirements for competence of testing and calibration laboratories, as it is the responsibility of Partner States to designate testing laboratories within each State and any testing laboratories looking for designation at national level will have to be operating and complying with the quality management system based on the ISO/IEC 17025 requirements.

In 2017, Ministry of Trade and Industry designated 13 laboratories. The National Quality Testing Laboratory Division has conducted awareness workshop on laboratory designation regulation for 25 Laboratories. 10 laboratories were pre-assessed, 14 External laboratories trained on ISO/IEC 17025 & 19011 and assisted in documents development process and among those 14 laboratories 11 Laboratories submitted their document to RSB for review.

LIST OF DESIGNATED PRIVATE TESTING LABORATORIES

1. INILAK-ERL, Water testing
2. WASAC Central Laboratory- water testing,
3. RTDA-Soil, Aggregate, concrete and bitumen,
4. IPRC Huye-Soil, concrete and aggregate,
5. NPD central material laboratory- Material testing,
6. STAGECO LTD- Soil and concrete,
7. Rwanda Material Testing centre LTD- Soil, concrete and bitumen
8. GEO-CONSULT LTD-Soil and construction material,
9. RICENT BTP RWANDA-Soil and concrete,
10. IPRC MUSANZE-
11. GLOWAC LTD-Soil and Concrete
12. INILAK LABORATORY UNIT ANALYTICAL LABORATORIES-Water and soil,
13. IPRC TUMBA-Scientific and technical services –cook stove, thermal efficiency, emissions, particulate matter, safety and durability and smoke

NATIONAL CERTIFICATION DIVISION

INCREASING CERTIFICATION OF PRODUCTS AND SYSTEMS



Over the years, the National Certification Division has registered a number of achievements.

By June 2010 only two domestic products were awarded certification marks. From 2010 onward, there were deliberate efforts that increased the number of certified domestic products. At the end of the fiscal year 2010-2011, 36 products were certified.

Since then the number of certified products has been increasing every year and in diversified areas. The number of certified products increased steadily to sixty five (65) in 2011-2012, one hundred and nineteen (119) in the year 2012-2013, one hundred seventy eight (178) in the year 2013-2014, two hundred and fifty (250) in the year 2014-2015, three hundred and thirty one (331) in the financial year 2015-2016, four hundred and twenty (420) for the year 2016-2017, and five hundred thirteen (513) in the financial year 2017-2018. This trend has continued to increase. To date there are 667 Certified products.

Table showing Cumulative number of products certified by RSB

Financial Year	2011 - 2012	2012 – 2013	2013 – 2014	2014 – 2015	2015 – 2016	2016 -2017	2017 -2018	2018 -2019
Certified Products	65	119	178	250	331	420	513	667

Local made products certification, re-certification, monitoring and surveillance

During the fiscal year 2018/2019, 110 new products were planned to be certified, 146 products to be re-certified and 160 S-Mark certified products monitored from the market and 80 products to be surveyed from industries. At the end of June 2019, 154 new products were certified, 113 products re-certified and 220 S-Mark certified products monitored from the market and 149 products were surveyed from industries.

DIVERSIFICATION OF CERTIFIED PRODUCTS

In the early years 2010 all certified products were food products like food and feed products; including cereal based products, fruits based processed products, milk and milk products, water, alcoholic drinks, non-alcoholic soft drinks, nuts, honey, coffee, tea and animal feeds but since then there has been diversification in various products

Today, RSB has certified products in different sectors of the Rwandan economy like construction materials; such as cement, steel bars, iron sheets, pipes, bricks, tubes, sections, profiles, chemical products; including Cosmetics and detergents, liquid soaps; consumer products, including mattresses, agrochemical products such as pesticides and paper

based products including toilet papers, sanitary towels to mention but a few.

The directory of certified products is available on RSB website www.rsb.gov.rw

SYSTEM CERTIFICATION

Besides product certification, RSB also offers system certification services. These are Quality Management Systems (QMS), Hazard Analysis and Critical Control Points (HACCP), Food Safety Management Systems (FSMS), Environmental Management Systems (EMS) and the latest addition being Occupational Health and Safety Management System (OHSMS)

RSB introduced system certification in 2011 and it took two years for the first company to acquire certification in 2013.

During the fiscal year 2018-2019, the plan was 23 new systems to be certified, 10 systems to be re-certified, 20 systems to be monitored. At the end of June 2019, 17 new companies were certified (12 HACCP, 4 QMS, 1EMS), 7 companies re-certified, 21 companies monitored.

The number of system certified companies increased from one (1) in the fiscal year 2013/2014 to accumulative of 52 companies in the fiscal year 2018/2019

Table showing cumulative number of system certification from 2013-2014 up to 2018-2019

Financial Years	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
New certified companies	1	9	20	33	39	52

Graph showing number of companies certified against management system standard

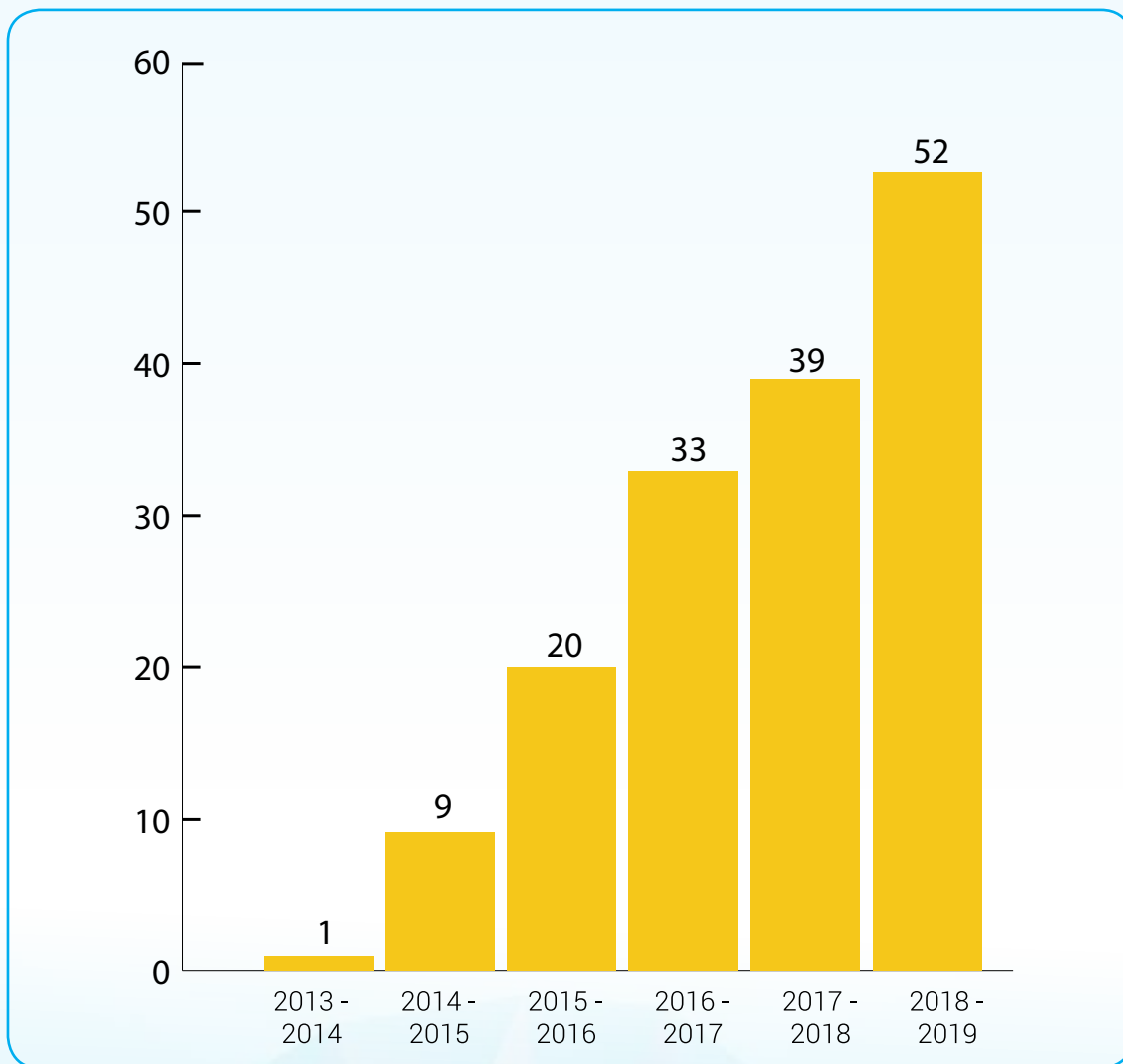
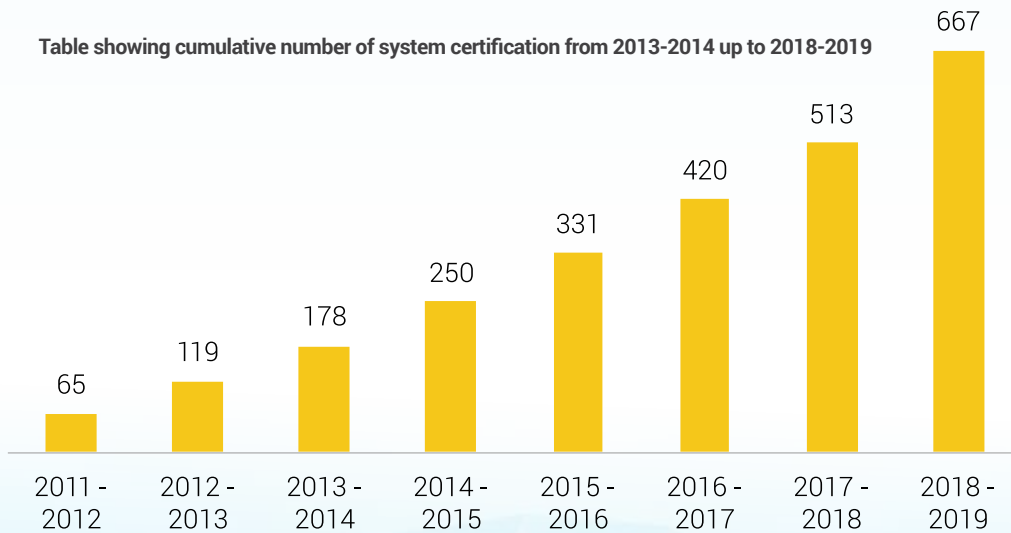


Table showing products certified and re-certified annually from 2013-2014 up to 2018-2019

Financial Years	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
New certified products	59	72	86	92	123	154
Recertified products	18	38	67	68	71	113



Table showing cumulative number of system certification from 2013-2014 up to 2018-2019



RSB PROMOTING FAIR TRADE

THROUGH CALIBRATION AND VERIFICATION OF MEASURING INSTRUMENTS



In everyday life everybody commonly measures something. People measure lengths, weights, speeds, time and they expect the indications of their measuring instruments to be reliable. In industry, for the manufacturing of products as well as for the provision of services, careful measuring is an element of the quality of the manufactured product or of the service provided. To carry out measurements, instruments are used, which no matter how sophisticated and modern they may be, have a common drawback: their readings are not constant in time. The causes of this drifting are many

and the major one is definitely obsolescence. But there are other reasons: mechanical wear, oxidation, wrong handling, etc.

After given intervals, the operator has to be able to rely on the reading of the measuring instrument, he has to have evidence that instrument has not drifted beyond some limits. They must, in other words, be in a position to show that the traceability of the measurement to national standards is complied with.

Metrological activities, calibration, testing and measurements are valuable inputs to ensure the quality of many industrial and quality of life related activities and processes. This includes the need to demonstrate traceability, which is as important as the measurement itself. Recognition of metrological competence at each level of the traceability chain can be established through mutual recognition agreements, accreditation of laboratories and services and peer review.

Calibration is a basic tool in ensuring the traceability of a measurement instrument, measuring system or reference material. Calibration determines the performance characteristics of an instrument, system or reference material. It is usually achieved by means of a direct comparison against measurement standards or certified reference materials.

A calibration certificate is issued and, in most cases, a sticker is provided for the instrument.

RSB through the National Metrology Division (NMD) offers metrology services of callibration and verification of measuring instruments. During the Financial Year 2018-2019, the target was to calibrate 2,400 equipment.

At the end of June 2019, 4,340 measuring equipment used in industries and trade transactions were calibrated and their calibration certificates were handed over to stakeholders. This activity was achieved beyond what was planned due to the growing industrial sector as well as the awareness campaigns conducted on metrology services.

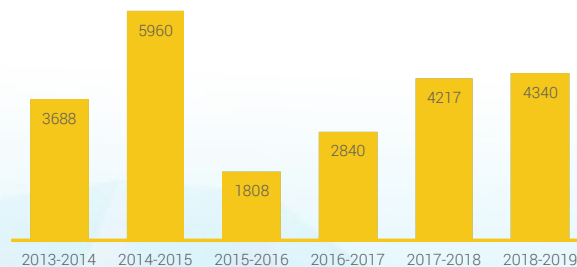
WHY IT IS IMPORTANT TO CALIBRATE INSTRUMENTS:

- ✔ To establish and demonstrate traceability.
- ✔ To ensure readings from the instrument are consistent with other measurements.
- ✔ To determine the accuracy of the instrument readings.
- ✔ To establish the reliability of the instrument i.e. that it can be trusted.

This table below shows an increase in calibrated equipment annually from fiscal year 2013-2014 to 2018-2019

Years	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Number of equipment calibrated	3688	5960	1808	2840	4217	4340

Number of equipment calibrated



VERIFICATION OF MEASURING INSTRUMENTS

Verification of measuring instruments according to ISO 8402-Quality management and quality assurance vocabulary standard means confirmation by examination and provision of objective evidence that specified requirements have been fulfilled.

The term “verified” is used to designate the corresponding status.

WHY VERIFICATION IS IMPORTANT?

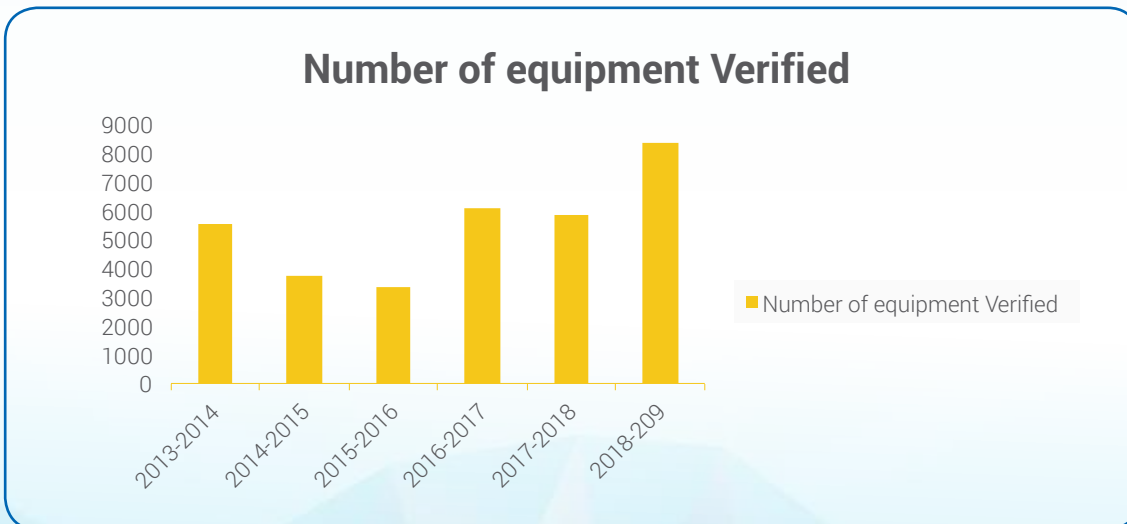
- ✓ In connection with the management of measuring equipment, verification provides a means for checking that the deviations between values indicated by a measuring instrument and corresponding known values of a measured quantity are consistently smaller than the maximum allowable error defined in a standard, regulation or specification peculiar to the management of the measuring equipment.
- ✓ The result of verification leads to a decision either to restore to service, or to perform adjustments, or to repair, or to downgrade, or to declare obsolete. In all cases it is required that a written trace of the verification performed be kept on the measuring instrument's individual record.
- ✓ During the Financial Year 2018-2019, the targeted number of measuring instruments used in trade and medical sector to be verified was 6,299. At the end of June 2019, 8,367 instruments were verified including fuel dispensers, trade weights, balances, medical equipment and energy meters. The annual performance was 133%. Verification certificates of these equipment were prepared and approved.





The table below shows the number of instruments verified from fiscal year 2013-2014 to 2018-2019

Years	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Number of equipment Verified	5559	3706	3377	6048	5869	8367



ACCREDITED RSB METROLOGY LABORATORIES

PROMOTING MADE IN RWANDA PRODUCTS ON THE EXPORT MARKET



Three National Metrology Division laboratories received international standards accreditation from by Germany Accreditation agency (DAkkS), one of the world's leading accreditation bodies.

These are; mass, balance, and temperature calibration laboratories were accredited in a bid to promote exports out of the country to Europe.

The accreditation procedure was funded out of cooperation between RSB's National Metrology

Division and the Germany Metrology Institute (PTB), aimed at strengthening metrological services in Rwanda with the objective of supporting economic growth through accurate and efficient measurements system in industries, trade transaction and safety.

The Mass laboratory offers services of calibration of standards for industrial products, the Volume laboratory conducts calibration of laboratory glassware (Pipettes, Graduated cylinders, Burettes, Density bottles, volumetric flasks), while the



Temperature laboratory conducts calibration of thermometers, laboratory ovens, incubators, cold rooms, autoclaves, fridges and freezers, coolers, among others.

The laboratories are useful in measurements for industries as well as in health sector.

With the accreditation of these laboratories, it is an assurance to clients seeking metrology services that there is no difference between measurements carried out in Rwanda with those carried out elsewhere in the world. Therefore helping to enhance the Made-in-Rwanda policy as the country's exports are more trusted abroad especially Europe.

The accreditation also helps lower Technical Barriers to Trade between Rwanda and other countries because in the advent of globalisation, domestic and export trade have become vital to the development of any country's economy and mostly Rwanda. There is a need to lower or to eliminate barriers to trade in order to facilitate trade among nations. The barriers can be in form of technical regulations and standards.

Therefore the accreditation of these laboratories are helping in lowering technical barriers to trade can be achieved by harmonising technical regulations, standards and conformity assessment procedures as laid down in the agreement of technical barriers of trade of the World Trade Organization.

RSB LEGAL METROLOGY PROCEDURES

AND AWARENESS CAMPAIGNS ON METROLOGY SERVICES



The purpose of legal metrology is to control the usage of measuring equipment in trade, law enforcement, health services and environmental protection through type approval, initial and periodic verifications and inspections, control pre-packaging operations, and manage regional and international relationships in the area of legal metrology.

National Metrology Division offers verification of trade masses, verification of balances, verification of fuel dispensers, verification of bulk meters,

verification of energy meters, verification of water meters, verification of medical equipment, pre-packed products control licensing maintenance/repairs operators.

It facilitates fair trade through harmonized written standards, consistent measurement standards and internationally accepted certificates, drives innovation because it enables and drives industrial innovation in advanced production and instrumentation and supports regulation by providing measurement references for policy advice, directives, conformity assessment, and verification.



LEGAL METROLOGY PROCEDURES

During the Financial Year 2018-2019, RSB developed and approved one procedure on Weighing instruments verification, 2 procedures on Net and Tare weight LPG cylinders verification and Blood pressure verification as well as 33 procedures in the areas of mechanical and electrical metrology laboratories. It is worth noting that all the procedures are being used in their respective areas of operation.

AWARENESS CAMPAIGNS ON METROLOGY SERVICES

Three awareness campaigns on textile and manufacturing of construction materials were conducted during the fiscal year 2018 / 2019. Also during the World Metrology Day that is celebrated on 20th may each year participants were informed on metrology activities.

RSB UNDERTAKING THE UPGRADE OF LABORATORY INFORMATION MANAGEMENT SYSTEMS (LIMS)



Laboratory Information Management System (LIMS) is a database application that is used to store and manage information associated with the laboratory, such as sample submission contracts, sample matrix, test results, methods, parameters, quality controls and control limits.

It accommodates the expansion with a clear migration path so that none of the customizations previously made are lost.

Laboratory Information Management Systems (LIMS) aims at reducing the testing turnaround time and data management

LIMS facilitates National Metrology Division Laboratories to be more efficient with services and have quicker turnaround times to meet industry standards and remove delays in services delivery.

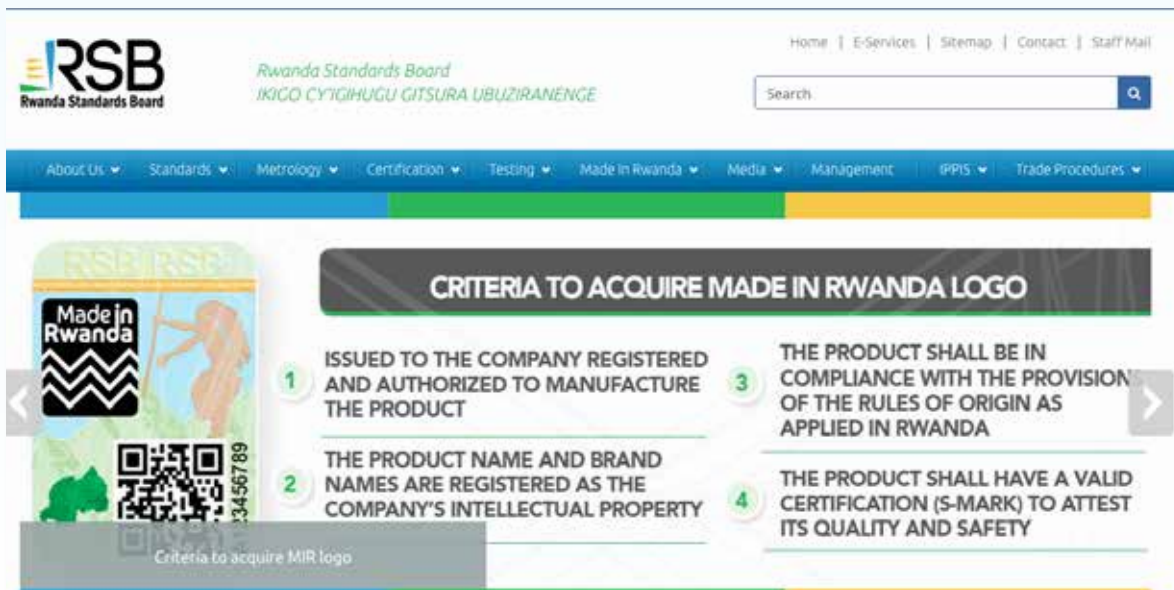
In partnership with TradeMark East Africa (TMEA) the process of upgrading the Laboratory Information Management Systems is ongoing. The upgrade LIMS will facilitate online reporting and equipment interfacing.



DIGITALISATION OF RSB SERVICES

FOR QUICK AND EFFICIENT SERVICE DELIVERY

In a bid to increase efficiency and serve clients better and effectively, RSB undertook digitalization of services and activities offered by the various divisions, especially the National Standards Division, National Quality Testing Laboratory, National Certification Division and National Metrology Division and Corporate Services Division.



A. DIGITALIZATION OF NATIONAL STANDARDS DIVISION SERVICES

RSB in collaboration with EAC Trade Hub has undertaken digitalization of National Standards Division services related to standards development, standards sales and library Services. Up to now RSB Technical Committee related documents have

been uploaded in the system at 80%, submitted to ISO expert. 18 staff has been trained on the use of Teleconferencing equipment, and the teleconferencing facility now facilitates distance participation in standards setting activities

B. DIGITALIZATION OF NATIONAL CERTIFICATION DIVISION SERVICES

With support from TradeMark East Africa (TMEA) digitalization of National Certification Division services is under way. Needs assessment for upgrading of Management Information Systems (MIS) has already been done and more work is in progress. The target is to move towards digitalizing all certification services.

C. DIGITALIZATION OF METROLOGY SERVICES.

The National Metrology Division is in the process of having a fully operational Laboratory Information Management System (LIMS), a database application that is used to store and manage information associated with the laboratory, such as sample submission contracts, sample matrix, test results, methods, parameters, quality controls and control limits.

Laboratory Information Management Systems (LIMS) will reduce the testing turnaround time and data management.

D. INTRODUCTION OF PROTECTED MARKS ALSO CALLED “TRACK AND TRACE SYSTEM”

Protected Calibration and Verification Sticker, Protected Import Inspection stickers and the protected Made in Rwanda Logo have been introduced and criteria for issuing of these stickers are already in place.

By introducing protected mark/ sticker, products traceability of imported products will be easier, consumer confidence in services rendered by RSB will improve, consumer safety for the marked products will be guaranteed hence reduce litigation cases with defaulters.



These highly protected marks / stickers / logos embodies technological patterns for product genuineness traceability, falsification, fight counterfeiting and serves as a powerful marketing tool for products.

The track and trace system is fully functional and RSB is conducting stakeholders awareness prior to its use.

THE OPERATIONALISATION OF THE MEDICAL AND PHARMACEUTICAL LABORATORY



The national Drugs and Pharmaceutical Laboratory aims at ensuring that the quality of drugs and pharmaceuticals locally manufactured and imported are safe to the consumers' health and environment protection.

Counterfeiting pharmaceutical products and the proliferation of substandard quality medicines is a vice that has been well identified internationally and constitutes a serious health hazard. It is primarily flourishing in developing countries where institutional capacity in testing, inspection and law enforcement

is weak and adequate funds for regular drug quality monitoring are missing.

Substandard pharmaceutical products can take all kinds of forms, but the end result is, when administered to a patient the consequences range from treatment failure, increased toxicity, increased drug resistance, for example, to malaria, Tuberculosis and Acquired Immune-Deficiency Syndrome and even outright death as a result of any of the above.



During the fiscal year 2018/2019, the National Pharmaceutical and Medical Devices Testing Laboratory was operationalised. The aim of this laboratory is to assist Government of Rwanda to promote and protect public health by assuring the quality, efficacy, and safety of medicinal products and other health commodities.

The principal function of the laboratory is to analyse medicines for public and private sector to ascertain the level of quality and efficacy of each medicine; imported or locally manufactured, analyse samples for registration and inspection purpose,

control of imported medicines and surveying the domestic market (post market surveillance). The optimal situation is that substandard or counterfeit medicines do not enter the Rwanda market and are identified either during production or importation process.

The Medical and Pharmaceutical Laboratories has now been transferred to the Rwanda Food and Drugs Authority (Rwanda FDA).

NATIONAL AGRICULTURAL EXPORT DEVELOPMENT BOARD LABORATORY

TO PROMOTE AND CONSOLIDATE
RWANDA'S AGRICULTURAL AND
LIVESTOCK EXPORTS.



National Agricultural Export Development Board (NAEB) is a commercial public institution established by the law No 13/2017 of 14/04/2017 determining its mission, organisation and functioning. It is an institution that supports agriculture and livestock commodity exports development.

Guided by the desire to grow export through increased farm production and productivity of targeted agricultural export commodities and enhance value and assure quality of agricultural

export commodities, support in the increase their competitiveness at international markets. NAEB is committed to consistently support the production of high quality agricultural and livestock products that satisfy export markets, statutory and regulatory requirements.

In line with her desire to consistently maintain high quality, standards, competency and professionalism of its staff, last year NAEB laboratory were designated by The ministry of Trade and Industry after conformity attestation by Rwanda Standards Board



We caught up with Eng. Eric Ruganintwali the Quality Assurance and Regulatory Division Manager at NAEB to take us through the reasons why NAEB sought for designation of testing laboratories. Below are the excerpts.

© NAEB Testing Laboratory acquired designation by the Ministry of Trade and Industry. Why did you deem it necessary to get it designated? In the business of conformity assessment, testing and other laboratory affiliated services all over the world, it's paramount to have proof that you are performing services that are compliant to international standards which is benchmarked through the ISO 17025 which sets a precedent in terms of testing, metrology, calibration and overall lab management. Accreditation of our testing laboratory therefore is a testimony that that confirms that the offered laboratory services are in line with international standards set criteria and thus give us more confidence and trust from our

client. We are now looking forward to expanding our scope to comply with the increasing demand from our clients as services that we offer.

Accreditation of laboratories emanates from the East African Community common markets protocol intended to promote trade among member countries. It is a basis to ascertain that we speak of the same language at the EAC level when it comes to testing services. It is important therefore have common and agreeable testing capacities among EAC member states.

Hence the needs to have our laboratories comply with the EAC laboratory designation criteria. We are grateful that last year our laboratory was among the first laboratories to comply and granted the designation in Rwanda.



Q What process did the laboratory go through to acquire designation?

A The process is quite straight forward; the EAC designation protocol has set criteria and steps to follow. We applied to MINICOM through Rwanda Standards Board, filled an application highlighting our scope, equipment, methods applied, the skills and competences of our technicians etc.

For us we limited our scope to testing of coffee and tea for export quality analysis, soil, plant, water and fertilizer.

RSB sent a team of auditors to carry out an assessment vis a vis the criteria set, to make sure that we have the required competence in terms of testing methods, if we are doing normal and regular calibration, competent laboratory technicians, etc.

Like any other certification process there will be follow ups through what we call surveillance audit to ascertain if we are still able to demonstrate the ability to comply with the set criteria.

Q It is now a year since the designation of NAEB Laboratory, in your view what is the value of the laboratory designation in supporting agricultural exports?

A Accreditation offers us the benefit of a third eye, to from time to time evaluate our scope, staffing, methods of testing, equipment etc. this translates to the quality of service we offer to our clients.

This takes us to the general reasons why we had to have our laboratories accredited or designated. It is important after some time to do a performance evaluation, among the best way include an involvement of a third party coming in to do the evaluation, to either give you a clean bill or advise you accordingly on what needs to be improved upon

This also reduces the risk of failures and unacceptable deviations in test results.

Thirdly it gives us more confidence and trust amongst



our clients. Given that NAEB is in the export business, we have clients for Rwanda products all over the world. We are judged by someone somewhere in the corner of the world who is either consuming Rwandan coffee or Tea, therefore our products prior to be exported must ascertain that the expected has been attained and even gone beyond the expectation and consistently .

© In line with your mandate as NAEB and the need to have quality exports especially tea and coffee how are Rwandan products performing on the international scene?

Ⓐ Rwandan products are performing very well. It should be clear that exports thrive on compliance with clients' requirements and expectations; therefore, quality assurance is very key. Tea and Coffee are gaining special niche and speciality markets as single origin/estate products with inherited rare and unique characteristics.

It is in the same spirits that, when clients ask for or are keenly looking or expecting a certain quality parameter from our products, we must be able to deliver on it. Quality assurance is the only way we can be able to ascertain and be able to provide with certainty and assurance.

At NAEB Quality assurance is not just at the finished products but it is embedded within the whole value chain, infrastructure; planning, vision of the institution and all the institution hierarchy. NAEB is playing a catalyst role in increasing export revenues through a number of interventions in strong collaboration with the private players who play the vital role to grow export

© With the Continental free trade area (CFTA) and growing regional and continental markets and Rwanda increasingly being known amongst her peers as being a quality driven country, what is your message to Rwandan exporters regarding the laboratory designation?

Ⓐ This is a golden opportunity for not only exporters but also farmers and by extension to everyone involved in the value chain. As a country we are aspiring to be an economy where a farmer should be able to live decently from what they produce. Free trade area opens up an enormous market of billions of consumers for Rwandan products and thus a billion of revenues. The only way we can take advantage of this market is by producing products that comply to quality and required standards to suit such a big market and even beyond with a competitive edge, create a brand for our products and position ourselves as the best.

Looking at our national geographical advantage and ability to produce agricultural and livestock products, the only way to position ourselves internationally is by producing high quality products.

For us to achieve this is by us working backwards and put emphasis on what we as a country are good at. We want our products to be quality driven and become synonym of Rwandan products and services

DESIGNATION OF AFRICA IMPROVED FOODS LABORATORY

BOOSTING PROVISION OF QUALITY TRUSTED FORTIFIED BLENDED NUTRITIOUS FOODS



Africa Improved Foods (AIF) is a public-private partnership involving DSM, Government of Rwanda, International Finance Corporation, CDC Group and FMO dutch entrepreneurial development bank. AIF provides a scalable and sustainable solution to malnutrition via local production of highly nutritious foods. The objective is to reduce poverty, create jobs and address stunting and malnutrition.

Africa Improved Foods (AIF) is inspired by the solid evidence that the 1000 days of a child (from conception to the second birthday), are critical for a child's physical and mental development. Hence the company produces fortified blended food intended to improve the health status of consumers most importantly fight malnutrition among children between six months to two years and breast feeding and pregnant mothers.



The overall objective of Africa Improved Foods is to fight malnutrition most importantly fight stunting among children.

Quality is at the heart of AIF production. The company has got a fully-fledged department of quality with two sub departments; quality assurance and quality control department. Quality assurance department takes care of the systems, it ensures that food safety systems in place. This cardinal responsibility is to make sure that our products are certified and the AIF system itself is certified.

“Quality control department is where testing is done. Incoming material and outgoing finished products are tested. And before they are tested we ensure that the laboratory is also certified following the standards of ISO 17025 which is the general requirements for the competence of testing and calibration of laboratories, it is the international reference for testing and calibration laboratories wanting to demonstrate their capacity to deliver reliable results”. says Mr. Peter Mugisha the Quality Control and Assurance Manager AIF.



Since client's satisfaction is key to AIF, Designation of laboratory helps in developing or creating confidence among clients / consumers. It ensures that quality control analysts are competent therefore there is confidence in whatever tests done and speed of the process of testing is also enhanced.

According to Peter Mugisha, designation of AIF laboratory started with the awareness done by Rwanda Standards Board, trainings were conducted in order for AIF laboratory technicians to comprehend the whole process, then application forms were filled, AIF laboratory was pre-selected. Among the criteria for pre-selection was to submit documentation, among them the test methods, standard operating procedures, quality manual, and trained staff

participation in proficiency testing programs and doing regular laboratory internal audits.

With our laboratory being designated to comply with ISO 1725 standard requirements, it is a demonstration that the laboratory operates competently and that it generates valid results.

Because AIF laboratory is designated, test reports and certificates can be accepted from one country to another without the need for further testing, which, in turn, improves international trade and acceptance on international markets.



Therefore it increases confidence amongst the outside world.

AIF laboratory has got standard operating procedures on certainty of measurements, calibration of laboratory equipment, validation and on verification of methods in order to ensure certainty of measurements and accuracy of test results. Laboratory equipment are periodically calibrated by RSB at least once a year.

Designated testing laboratories are a clear indicator that the laboratory fulfils all the requirements for a standards testing laboratory that is to say in terms of the premise, staff competence, the right sampling methods, testing procedures and even using the right reference materials or equipment.

Therefore a designated laboratory is a role model to other laboratories, It is a testimony that it can be trusted and can be a reference point by other laboratories.

AIF testing laboratory is now looking forward to being accredited. AIF has applied for accreditation and final assessments are being done.

Designation of the laboratory has been of great impact to AIF especially in as far as promoting international trade is concerned. In the beginning AIF used to only sell products locally. But with increased quality and safety of products, it is now selling to regional markets like Democratic Republic of Congo, Uganda and Kenya. It also sells the Ministry of Health, RBC and NGOs like World Food Program and Global Communities.

ALFA HOLDINGS PRODUCING QUALITY MADE IN RWANDA CABLES; BRIDGING THE DEFICIT OF CABLES IN EAST AFRICA



Alfa Holdings, operating from their business premises in Kigali Special Economic Zone is a new player in the industry of manufacturing electrical wires and cables complying with international standards.

The ultra-modern plant manufactures high quality multi core cables of Copper conductors of sizes up to 300m². Alfa Cables range of domestic and industrial copper cables include the PVC Insulated Rigid and flexible multi – core Cables: 1.5 to 25mm² in single, two, three and four cores, PVC Insulated Flexible Cables: 1.5 to 25mm² in single, two, three and four cores.

The cables conform to RS IEC 60227, RS EAS 115 – 117 1996 and RS EAS 137 2000 standards and has recently acquired the newly introduced Made in Rwanda logo that can give customers details of products by use of a smart phone or website.

The \$6 million cable plant has a capacity to produce more than 600 tonnes of cables annually.

According to Anitha Mukandayisenga the Sales and Marketing Officer, Alpha Holdings, the RSB certification of their products has come with huge blessings. Initially before certification it was difficult to be trusted on the market. Today Alfa cable is



trusted by clients, players in the construction industry have confidence in the product. They are now supplied to big construction companies like China Star Construction Ltd, Central Electrical Ltd, Real Contractors, ROKO, BAHO Hospital to mention but a few and widely used in domestic electric installations throughout Rwanda.

“We produce 50 tonnes, which is 1,000km of multi-core copper cables monthly, in eight hours a day. Our target is to double the production by working day and night,” said Anitha Mukandayisenga.

According to RDB, Rwanda’s energy sector plans will require significant wire and cable material to be realized and the booming construction is booming in line with Master Plan and Vision 2020 goals. The East African Community has a 5,400-tonne deficit in cables annually, Rwanda’s cables needs were 760 tonnes in 2016 and given the boom in the real estate

and continued investments in power generation and distribution, the demand is likely to surpass 800 tonnes this year. Alfa Holdings has therefore come in to bridge this deficit.

Trading data from the Rwanda Development Board (RDB) indicates that in 2016 the country’s cable and aluminium import bill was \$30.9 million, putting pressure on foreign reserves.

With the high quality copper products manufactured, Alfa Holdings is looking forward to, in the near future, begin exporting to neighbouring countries like the Democratic Republic of Congo, Uganda, Burundi, Kenya, South Sudan and Tanzania.

Products can be found in all leading hardware shops in Kigali, Huye, Muhanga, Musanze, Rubavu, Nyagatare, and Rusizi to mention but a few.

RSB LICENSING OF LOCAL INSTALLATION, REPAIR AND MAINTANANCE SERVICE PROVIDERS BOOST FAIR TRADE.

T.H.S GENERAL SCALES SERVICES LTD, AN ATTESTATION OF COMPETENCE AND QUALITY



Established in 2005, T.H.S General Scales Services Rwanda Ltd was born out of need to find solution for lack of trusted and experienced weighing scales technicians. At the time there were no competent technicians who could fix, service, and repair weighing scales yet they are an important tool in facilitating fair trade.

The core business of T.H.S General Scales Services is to sell, repair, service and calibrate all types of weighing scales (both mechanical and electronic). The company also trains her customers on how to use these weighing scales and weigh bridges.

"Weighing Scales control our lives in our day today lives, they facilitate fair trade" says Amb. Zephyr Mutanguha the Managing Partner of T.H.S General Scales Services.

Proper weighing scales are central to the success of the manufacturing sector. All operations in the manufacturing value chain that is to say from raw materials to the final consumer depend on measurements. T.H.S General Scales Services comes in to ensure that their weighing scales operate well.

THS services Tea factories, Rwandair, CIMERWA and many more. THS has helps to ensure that their clients like Sorwathe, Rwandair, CIMERWA to mention but a few can issue trusted measurements.

T.H.S General Scales Services has a cordial day today working relationship with RSB. RSB tests all the company's weighing scales to establish the effectiveness before they are put on the market.

Wherever T.H.S General Scales Service repairs clients' weigh scales and weigh bridges, RSB comes in to verify that work has been done to set standards and affix a stamp affirming to this.

T.H.S General Scales Services is proud to be one of the few companies in Rwanda that has been licensed by RSB to offer repair, testing and calibration of weighing equipment.

In order to be licenced RSB first offered training to T.H.S General Scales Services' technicians, tested and had to pass the exams. Another important requirement by RSB was the workshop; its general atmosphere, equipment and staff qualification. After ascertaining these then a license was issued to T.H.S General Scales Services.

Amb. Zephyr Mutanguha contends that the public is now getting to know the importance of working with a licenced company. The company turnover has increased by over 70% after getting the RSB license it has increased confidence amongst clients towards the company.

However, T.H.S General Scales Services is faced with challenges of inadequate capacity by RSB in terms of staffing, and as operations get digitalized, there is need to train and equip local technicians on the advancing technology. The company is looking forward to partnering with local universities and other technical training institutions to train and equip technician with modern skills as per the evolving technological advancement to be able to ably and effectively repair and service weighing scales.

Amb. Zephyr Mutanguha calls upon the general public, clients and consumers at large to trust licenced technicians more now that T.H.S General Scales Services is licensed by RSB. The license means the company has the capacity to offer trusted repair, service and calibration of weighing scales and equipment.

The license is a testimony that the company has enough up to date equipment and trained and competent staff with the required skills to effectively offer services of repair, calibration and servicing of weighing scales.

Furthermore our equipment should be trusted since they are all checked and certified by RSB before we sell them to customers.

In future T.H.S General Scales Services is looking forward to producing Made In Rwanda weighing scales and also be able to improve on the local made weighing scales commonly known as 'Rutare'.

UBURANGA GENERAL BUSINESS LTD PRODUCING QUALITY HONEY CONTRIBUTING TO NATIONAL DEVELOPMENT



Located in Nyarugunga sector, Kicukiro district, the company started general operations in 2018, it is now a house hold name operating under a brand name Uburanga Honey. With her products distributed all over major super markets in Kigali forexample Deli Store, Frulep supermarket, Umuringa supermarket, Best Friends supermarket, Simba Supermarket and also consumed by leading hotels and Restaurants like Kigali Golf Club, Urban Hotel and other institutions like Green Hills Academy, Development Bank of Rwanda to mention but a few.

Quality is at the Centre of all Uburanga General Business. Honey is a food consumed by young and adults, its quality and overall hygiene is very paramount to human health, and we take extra caution when handling our honey throughout the whole value chain.

For starters Uburanga General Business buys honey from only farmers and cooperatives that are certified by MINAGRI, care and precaution is put on the hygiene from the farmer, to our receiving area at the factory, storage, to processing, packaging and dispatching to our clients.



We are so grateful to RSB for the training, advice and support rendered to us towards being certified. We are proud beneficiaries of the Zamukana Ubuziranenge program said Ms Habinshuti Marianne the proprietor Uburanga General Business Ltd.

Uburanga General Business products have been granted the RSB quality mark S-Mark.

The certification according to Ms Marianne means a lot to Uburanga honey product. It is an attestation to pursuit for excellence and adherence to quality. The S-Mark certification opened doors for the company. They now supply to leading hotels because they are trusted and proven.

The company is now looking forward to being HACCP certified and certificate of registration by the United States Food and Drug Administration (US FDA).

We believe since our honey is natural and of good quality, it will enable us export to Europe and Asian markets adds Ms Marianne.

Our government has created a conducive environment for us to thrive as the private sector, it has sought partnerships for us to seek better markets, what is now required of us as the private sector is to seize the opportunities. We are now



focused on being HACCP certified and also getting the US FDA certificate." emphasizes Ms Habinshuti Marianne the proprietor Uburanga General Business Ltd.

Uburanga General Business Ltd is proud to contribute to national development.

It offers employment to Rwandans both directly and indirectly. However Ms Habinshuti Marianne says overall they are still faced with a challenge of mindset change where some people still think imported products are better than local products. She is optimistic that with increased sensitization, this stereotype will go away and with the newly introduced protected Made in Rwanda Logo which is being issued by RSB, this will be eventually overcome. "Rwanda as a brand is known for quality and delivering on her promises.

Ms Habinshuti Marianne contends that the new Made in Rwanda Logo issued by RSB will be a strong branding tool for our products on the international market and it will also protect our products from being counterfeited." She adds.

Under the forth Strategic Plan for Agriculture Transformation (PSTA4), Rwanda targets to increase honey production to 8,000 tons per year by 2024.

CONSUMER'S CORNER

CONSOLEE NTAHONDI, VICE PRESIDENT OF IWACU HEZA BUGARAMA - RUSIZI DISTRICT

We have not yet received the S-Mark. Before this campaign, we were not aware that textile products also need to be certified and conform to sector standards. We are now aware of the need to have Standardisation Mark especially the Made in Rwanda mark. This, we believe, will make our textile products more trusted and competitive; this is going to help us even export to international markets.

However, the certification process is costly to us given our current capacity. I welcome the initiative to make certification more accessible through the Made in Rwanda campaign where Rwanda Development



Board has offered to pay half of the charges for certification costs. Iwacu Heza deals in textiles and fabric designs mainly bed sheets and curtains. Her clientele are mainly from DRC and Burundi considering their strategic closeness to Burundi and Democratic Republic of Congo.

PASTEUR MBABONIYIKI FELICIEN, NYAGATARE FRUIT PROCESSING COMPANY - NYAGATARE DISTRICT

The Made in Rwanda campaign has transformed our operations. We are S-Mark certified, we are now looking forward to acquiring the protected Made in Rwanda Mark.

The S - Mark has helped us expand our market and people now have confidence in our products. We are confident this Made in Rwanda mark will help us to effectively compete with big companies in the market. We appreciate that the process for getting standardisation mark has now become easier.





Winifred Nyirabarera, a Livestock Farmer and Resident of Karebero Village, Muko sector in Musanze

“In some cases, Formagerie la Lumiere would reject to buy our milk because of its quality; we didn’t know how to preserve it, on time between milking and delivery at Formagerie la Lumiere.” Says Nzabonita.

Today, Musanze livestock farmers know all about livestock feeding best practices, hygiene like cleaning the udder before milking, the use prescribed milk cans and ensuring that they are clean at all times.

Winifred Nyirabarera from Karebero Village, Muko sector also in Musanze is another small

scale livestock farmer, who has benefited from training on quality.

Nyirabarera recalls when the cheese factory in the area that was buying their milk would in some cases reject their milk on grounds of its quality.

“They sent a veterinary doctor to visit our cowsheds and found them in bad condition. He helped us re-build and improve them, taught us strategies to sustain the quality of milk before, during and after milking. This helped me to increase milk production from two to seven litres per day,” says Nyirabarera.

She adds: “The increase in production means increased household income, which contributes to the basic needs of my children especially their education.” One of her children is at the university.

She says the cheese factory has helped them to transform their lives as before they could not find market for their milk.

“This cheese factory has a huge impact on our socio-economic development, our children used to drop out school, that is a thing of the past thanks to Fromagerie la Lumière.






Farmers now have the required skills and are ready to share them with others to help them grow. “Our Government has taught us the values of collaboration and sharing experiences to grow together” Nyirabarera stresses.







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