



# The Benchmark

The Official Magazine of the Kenya Bureau of Standards





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# From the Editor's Desk

*Dear Readers*

Once more, it is with immense pleasure to present to you the third edition of the Benchmark magazine. As we all know, this magazine mirrors KEBS vision, mission and mandate to the Kenyan people. It also highlights events, activities and achievements not only from KEBS but our partners and key stakeholders.

In this issue, we shift gears to the agriculture sector, and particularly, try to understand the role that standards play. In many parts of the world, agriculture plays a crucial role in the economy. In Kenya, it is the backbone of our economy, it not only provides food and raw material but also employment opportunities to a very large proportion of the population.

Agriculture, for decades, had been associated with the production of basic food crops, synonymous with small holder farming and not commercialized. But as the process of economic development accelerated, many more other occupations become allied to farming and are now recognized as a part of agriculture.

Today, agriculture besides farming includes forestry, fruit cultivation, dairy, poultry, bee keeping, marketing, processing, distribution of agricultural products etc.

The Kenya Bureau of Standards (KEBS) has supported the agricultural sector by developing the requisite standards, establishing valuable collaborations and linkages with the relevant stakeholders. So far, our collaborations with the Kenya Flower Council, Fresh Produce Exporters Association of Kenya and European Union Standards and Market Access Programme (SMAP) have resulted in notable progress. These collaborations have borne fruit with improved quality and greater appreciation of Kenyan products in export markets.

This issue, highlights the significant strides we have made as a country in the adoption of standards in the agricultural sector with the support of partners. In addition, we have covered the training services offered by the National Quality Institute (NQI). As a stakeholder, read how can register for training e.g. on food safety management and to improve your farming techniques.

I do hope that the magazine encourages all our stakeholders to embrace the use of standards for quality life. Have a happy and blessed 2018.

Sincerely,

**Patricia Kimathi**  
**Communication Manager**  
**Kenya Bureau of Standards**



# KEBS' New Chapter to **Consolidate** **Gains**

*By Cosmas Butunyi*

Over the last three years, the Kenya Bureau of Standards (KEBS) has attained a feat that has eluded many government agencies.



*Mr. Charles Ongwae, Managing Director, KEBS*

**A**longside stringent financial controls, implementation of productivity improvement tools such as Quality Management Systems and the Balanced Scorecard methodology, we have also enhanced implementation of KEBS Strategic Plan 2012/17 and monitoring progress.

KEBS has adopted a risk based approach in development, execution and monitoring of its strategy. As a result, operations have been re-engineered based on process approach model to better manage controls. This has enabled the organization to overcome legacy challenges that dog many government agencies to deliver on its mandate. Currently, it has 9,011 standards on its portfolio, covering all sectors of the economy.

Thanks to the improved financial situation, KEBS is now aggressively investing in world class facilities and equipment for efficient discharge of its organizational mission of providing standards-based solutions that promote innovation, trade and quality life.

In addition to acquiring a seven-storey building in Mombasa to house the Coast Region, KEBS has completed constructing a new Lake Region Office in Kisumu. The agency has now embarked on putting up the North Rift Office in Eldoret, expected to be complete over the next one year.

As part of the decentralization by strengthening regional offices, KEBS is not only availing more space for laboratories and other facilities, but also facilitating the organization to effectively carry out its mandate across the country. The key objective is to equip the laboratories in the regional offices to the standards of those in Nairobi.

"Mombasa, for instance, is a key entry point into the country. Since all imported goods have to undergo product quality tests to ensure compliance with local standards, it is critical that we have robust facilities in such key entry points to enable swift clearance and turnaround. This facilitates faster clearance of goods, saves importers costs and helps drive economic activity in the country," Mr. Ongwae explains, adding that inland offices facilitate swift testing of client samples without having to ferry them to laboratories in Nairobi.

KEBS has also invested in state-of-the-art testing equipment for all its 30 laboratories over the last three years. Deploying internally generated funds, and with support from Trademark East Africa and the European Union under the Standards and Market Access Program, new equipment has been acquired. Over the last three years, over KSh1 billion has been invested in laboratory equipment.

All these investments, the KEBS MD says, are geared towards moving Kenya to the next level of development by supporting industrialization through enhancement of access to international markets.

Already, the organization has embarked on implementing a new strategic plan for the period 2017 – 2022, following the elapsing of the preceding one for 2012 – 2017. The new strategic plan has been approved by the National Standards Council and signed off by KEBS' parent ministry – The Ministry of Industry, Trade and Co-operatives.

The strategy deepens support to Kenya's long term development blueprint, Vision 2030 by providing standards-based solutions that not only promote innovation, trade and quality life; but also confer competitive advantage to Kenyan enterprises.

The thrust of the new plan is on continuing on the path of rolling out world-class quality infrastructure and people development while leveraging technology.

"We intend to spend the next five years to continue developing both technical and support staff alongside investing in facilities and equipment. For us to deliver the best analysis, the results have to be generated by the best personnel using the best equipment," says Mr. Ongwae.

**"We intend to spend the next five years to continue developing both technical and support staff alongside investing in facilities and equipment..."**



*Newly occupied KEBS Coast Region Offices and Laboratories along Nkurumah Road, Mombasa.*



Newly occupied KEBS Lake Region Offices and Laboratories, off Kibos Road, behind KIRDI offices Kisumu.

At the moment, several members of staff are on postgraduate scholarships, including two who are pursuing PhD studies in US universities. This is part of efforts to boost the skill-set within the agency.

Automation forms a key plank in KEBS' new strategic plan. The plan is to ensure that as many of the agency's activities as possible are automated.

"Technology will enable us to manage our operations better and enforce adequate control in our systems. Of course our activities are unique and solutions are not available off the shelves; we have to develop by ourselves," Mr Ongwae says. This includes development of innovative service delivery applications to improve customer experience. Rapid technological changes necessitate large capital outlays to keep up with the developments.

KEBS is also focused on diversifying its income streams to shore up existing ones. With increased compliance levels, penalty-related revenue has dropped, thanks to vigorous education campaigns and introduction of punitive penalties.

Mr. Ongwae says that some of the opportunities include provision of paid-for technical services to private clients and training in standardization through the National Quality Institute. The bulk of KEBS' quality assurance tests in factories are offered free of charge as public service to the country. On average, the agency handles 50,000 samples annually but is keen on growing this to 80,000 samples, over the next five years.

KEBS also intends to partner and coordinate with international standards bodies (such as ISO, Codex and ARSO) as well as other government agencies to effectively discharge its mandate.

Within the country, and particularly those that operate at border points, KEBS aims to synchronise activities, work more closely, create synergies and avoid duplication of activities. This includes Pharmacy and Poisons Board (PPB), Kenya Revenue Authority (KRA), Port Health and Kenya Plant Health Inspectorate Service (KEPHIS).

Already, it is working with PPB on inspection of imported medical devices to ensure that they meet the standards of both organisations. From September 1 this year, KEBS inspectors require a certificate of confirmation or a PPB import permit before importation to demonstrate that they meet market specifications, international standards, and are good for use.

On the international stage, Mr. Ongwae says, KEBS aims to continue actively participating in conversations and forums that impact Kenyan products.

"We want to continue participating actively on the international stage in key technical committees that impact on Kenyan products. We have to be on the table where standards are being developed to protect our interests. Some of these can be trade barriers unless we are represented," he explains.

With the ongoing investments and future plans, KEBS seems to have set its sights on increasing support to Kenya's economic take off.

## #standardsmakecitiessmarter

World Smart City Forum to support the development of smarter and more sustainable cities.

International standards for cities can offer sound guidance, bringing tailor-made answers to specific technical, environmental, social and security issues affecting services and the well-being of urban citizens. These challenges are immense and only by working together on international standards will we be able to tackle them.



## #KEBScustomerserviceweek



A business built on customer service understands and anticipates the customer's needs. It designs goods and services to meet those needs and builds products that perform to customer expectations. It then packages them carefully, labels them correctly, sells them at a fair price, delivers them as scheduled, and follows up, as necessary, to satisfy the customer. This kind of commitment to service leads to customer loyalty and to genuine improvements at the bottom line.



Cake cutting with KEBS MD during customer service week at KEBS headquarters



Regional Manager, South Rift Mr. Wambari sharing a laugh with customer during KEBS customer service week



Mt. Kenya Region staff during KEBS customer service week



KEBS Coast Region staff during KEBS customer service week



North Eastern Region staff during KEBS customer service week



To keep upto date with KEBS check out



Missed the campaign?

See all posts here [https://twitter.com/KEBS\\_ke](https://twitter.com/KEBS_ke)

and keep an eye out for the next campaign on Smart Cities later this year



# Adopt Standards for Smarter Cities

By Charles Ongwae

According to the United Nations (UN) it is estimated that by 2030, the world is projected to have 41 mega-cities with 10 million inhabitants or more. Urban areas are also projected to house 60 per cent of people globally and one in every three people will live in cities.



File picture

**N**ew statistics paint a picture of increased urbanisation. In fact in 2016, an estimated 54.5 per cent of the world's population lived in urban settlements. According to United Nation Development Programme (UNDP), more than half of the world's population now live in urban areas. By 2050, that figure will have risen to 6.5 billion people – two-thirds of all humanity.

Closer home, in 1990, the Nairobi population was estimated at 1.4 million, which has now quadrupled to approximately over 4 million. By 2030 there will be about 14.3 million people residing in the city of Nairobi. Indeed, every day, the world's population grows by nearly a quarter of a million people. Kenya is not an exception and the country cannot survive the pressure of population, meagre resources and quality of amenities unless we plan our cities sustainably.

With such colossal population growth there is need to relook at how we plan cities with a goal to ensure we have sustainable smart cities that have adequate amenities such as water, electricity, ability to travel efficiently from one point to another and other pressing challenges such as waste management. Sustainable development cannot be achieved without significantly transforming the way we build and manage our urban spaces.

Each year on 14 October, the members of the IEC, ISO and ITU celebrate World Standards Day, which is a means of paying tribute to the collaborative efforts of the thousands of experts worldwide who develop the voluntary technical agreements that are published as international standards.

This year's theme "standards make cities smarter" is so opportune noting that most cities, Nairobi included, are facing similar challenges of building a smart city which is a complex exercise. Every city faces its own challenges and requires its own mix of solutions. However, there is one common denominator that greatly simplifies this task. International Standards support the development of tailor-made solutions that can be adapted to the particular circumstances of a given city.

They contain expert knowledge and best practices, and are essential enablers in ensuring quality and performance of products and services. In addition, they drive compatibility between technologies and help users to compare and choose the best solution available.

International Standards such as ISO make things work safely and smoothly together at every level in cities. They provide the foundation for electricity access and all the many devices and systems that use electricity and contain electronics. They support the information and communication technologies that enable data collection, exchange and analysis, and information security. Last but not least they provide important guidance for all aspects of city life, including energy-efficient buildings, intelligent transportation, and improved waste management, building sustainable communities and much, much more.

According to ISO, cities need to make better use of resources and become more efficient: Policies, regulation, citizen involvement and standards are all key components needed to build a viable Smart City. While all are important, in a path towards smarter cities, standardization will play a key role in ensuring consistent outcomes of clean and safer cities.

# Standards are relevant in the physical world, where they allow for the interconnection of hardware and technologies, but also in the virtual space where they facilitate data collection/sharing as well as city operation.

For instance in today's cities much of the infrastructure is installed by a diverse set of suppliers and maintained by different agencies who sometimes work in isolation. To connect them both physically and virtually, standardized interfaces need to be put in place, and this is where standards organizations and others will have an important role to play.

For city planners, utilities, service and technology providers, standards are essential enablers, facilitating an expected performance and quality level, consistent reproducible outcomes as well as compatibility between technologies.

A perfect example is how a road would be constructed and finished and within two months, other suppliers would be found excavating the road to install other infrastructures such as underground cables, water pipes and sewer systems and as a result messing up the whole environment and at the same time inconveniencing the users.

For instance, the city of Nairobi was planned for a small population, but with rural urban migration, the city is now a home to over four million people. In fact the city of Nairobi is using a master plan developed in 1973, which legally expired in 2003.

A master plan is usually valid for 20 to 30 years, which means that structures constructed in Nairobi since 2003 are not covered by any known and valid master plan. The main goals for the 21st century are to deal with solid waste management, water and sanitation supply, provision of energy and air pollution, housing, land use planning and the rise of urban agriculture. Through development of an integrated urban infrastructure system in Nairobi and its periphery the migration back to rural areas should be guaranteed.

Standards are relevant in the physical world, where they allow for the interconnection of hardware and technologies, but also in the virtual space where they facilitate data collection/sharing as well as city operation. For instance ISO 37120:2014 defines and establishes methodologies for a set of indicators to steer and measure the performance of city services and quality of life.

The standard follows the principles set out and can be used in conjunction with ISO 37101, on Sustainable development in communities, management systems.

In fact, ISO 37120:2014 is applicable to any city, municipality or county government that undertakes to measure its performance in a comparable and verifiable manner, irrespective of size and location.

However with standards, all these challenges around city planning and management can be alleviated or controlled. The future looks bright for cities and communities that use standards during planning and service provision.

## Standards on Smart Cities and Communities

ISO through ISO TC 268, Sustainable Cities and Communities has developed standards on Sustainable Cities and Communities. These standards contribute to the UN Sustainable Development Goals through its standardization work. The proposed series of International Standards also encourages the development and implementation of holistic and integrated approaches to sustainable development and sustainability.

The standards developed aims at addressing the following areas; Management System, City indicators, City anatomy and Sustainability, Strategies for Smart cities and Communities, Smart Community Infrastructures for use by cities and communities.

China is already undertaking pilot smart cities projects on over 100 cities using the standards developed by ISO TC 268.

With Standards, we can make our cities smarter, step by step. It is comforting to know that International Standards will support smooth and integrated Smart City development. Bottom line the World runs on Standards.

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# Protecting Personal Records

## And Commercially Sensitive Information Is Critical

By Evelyne Ogunu



File picture

You simply can't be too careful when it comes to information security. Protecting personal records and commercially sensitive information is critical. In issue 3 of the Benchmark, ISO/IEC 27001 was lauded as an important tool for ensuring that information resources are effectively protected. But how can you tell that your ISO/IEC 27001 information security management system (ISMS) is making a difference? A new ISO/IEC International Standard may be what you need.

From smart phones, to smart television to smart washing machines – it is the era of artificial intelligence. It is the era of everything digital. From information that is sensitive and critical to the ones that is for public consumption, assuring information security remains a challenge to many organisations. According to the Ministry of Information, Communications and Technology (ICT) “Information security” means protecting information and information systems from unauthorized access, use, disclosure, disruption, modification and destruction.

With ISO 27001, it means organisations can secure their information or data from hackers or unknown persons who have limited access to information

# ISO/IEC 27004:2016 shows how to construct an information security measurement programme, how to select what to measure, and how to operate the necessary measurement processes.

including, those measures necessary to detect, document, and counter such threats.

According to Caroline Outa-Ogweno, the Kenya Bureau of Standards (KEBS) Certification Body Manager, ISO 27001, is the leading standard for certification of information security management systems (ISMS), and provides framework of policies and procedures that includes all legal, physical and technical controls involved in an organisation's information risk management processes, meeting security needs on an ongoing basis.

But how do you ensure that your ISMS is meeting its objectives? ISO/IEC 27004:2016 may provide the solution. The standard titled Information technology – Security techniques – Information security management – Monitoring, measurement, analysis and evaluation, provides guidance and describes a set of best practices for measuring the result of information security management system (ISMS) in an organization. Using ISO/IEC 27004 therefore provides information on the effectiveness of the ISO 27001 ISMS to ensure that Confidential information remains confidential, that the information used in the organization has Integrity and that relevant information is Available to those that need it (CIA)

Prof. Edward Humphreys, Convenor of the working group that developed the standard says: "Cyber-attacks are among the greatest risks an organization can face. This is why the much improved version of ISO/IEC 27004 provides essential and practical support to the many organizations that are implementing ISO/IEC 27001 to protect themselves from the growing diversity of security attacks that business is facing today."

Security metrics can provide insights regarding the effectiveness of an ISMS and, as such, have taken centre stage. Whether you're an engineer or consultant responsible for security and reporting to management or an executive who needs better information for decision making, security metrics have become an important vehicle for communicating the state of an organization's cyber-risk posture.

In Prof. Humphreys' own words: "Organizations need help to address the question of whether the organization's investment in information security management is effective, fit for purpose to react, defend and respond to the continually changing cyber-risk environment. This is where ISO/IEC 27004 can provide numerous advantages."

ISO/IEC 27004:2016 shows how to construct an information security measurement programme, how to select what to measure, and how to operate the necessary measurement processes. It includes extensive examples of different types of measures, and how the effectiveness of these measures can be assessed.

Among the many benefits to organizations of using ISO/IEC 27004 are:

- Increased accountability
- Improved information security performance and ISMS processes
- Evidence of meeting requirements of ISO/IEC 27001, as well as applicable laws, rules and regulations

ISO/IEC 27004:2016 replaces the 2009 edition; it has been updated and extended to align with the revised version of ISO/IEC 27001 to provide organizations with added value and confidence.

Commenting on these ISO standards, KEBS Managing Director, Charles Ongwae, says all ministries, department and agencies in the public sector are now required to uptake the Information Security Management System (ISMS) ISO/IEC 27001:2013 and thus need ISO/IEC 27004 as a support tool.

"We also call upon the private and the not for profit organisation to take up these standards as they will help them improve information security performance and ISMS processes," said Ongwae.

Ends...

# 190 Firms Certified on Quality Management Systems Standards

By Christine Kalui

According to a survey by Kenya Bureau of Standards (KEBS), which was carried out between March and June 2017 to establish the impact of implementation of quality management practices by businesses in Kenya, only 190 firms are certified to a Quality Management System (QMS) – this implying that the state of quality uptake in Kenya is still low.

**D**uring the survey a total of 166 firms were reached, of which 72% reported being in production and 29% in service industry. 31% of the respondents were in top management and 63% in middle management. 94% of the firms responded that they implement QMS while 5% do not implement QMS. For firms implementing QMS majority stated that implementation of QMS is as a result of a directive by the top management. Hence, it is necessary to engage and involve leadership of organizations and businesses in the efforts for enhancing quality uptake in Kenya.

Among the firms that implement QMS in their businesses, 49% reported to have implemented QMS for more than three years while the remaining 51% have implemented for at least three years or less. With regard to regional distribution, the survey findings were that majority (48%) of the QMS certified firms are based in Nairobi County and the others are based in various counties: 7% in Kisumu, 7% Uasin Gishu, 4% Mombasa, 4% Narok, 4% Kakamega and 4% Kiambu. The survey did not report any certified firms in a total of 23 out of the 47 counties in Kenya. This indicates that there is huge opportunity for entrenching quality culture in Kenya targeting regions

outside of Nairobi where uptake is currently low.

The National Quality Institute (NQI) conducted a total of 320 QMS trainings in the just concluded Financial Year 2016/2017. However, with only 190 firms (country-wide) having been certified to QMS, these figures do not reflect adoption of the ISO QMS standards following trainings. There is opportunity to encourage quality implementation beyond trainings and to certification.

The survey aimed to establish positive effects on business that firms observe as a result of implementing QMS. 96 % of the firms reported improvement of business in the aspects of top management support, customer satisfaction, enhanced employee involvement, enhanced skills development, enhanced application of technology, amongst others. Only 4% reported that they did not see the value of implementing the QMS standards in their businesses.

According to the survey findings, the major factors reported to motivate continued implementation of QMS were management decisions, statutory requirements and customer requirements. This implies that there is opportunity for enhancing quality uptake through engagement of top/middle management of organizations

and enhancing public/consumer awareness on quality. This could be through efforts such as follow up workshops after trainings, forums to create awareness on the value proposition of QMS standards to businesses and the consumer, further support by way of coaching services to ensure effective implementation of QMS, among other feasible efforts.

In implementation of QMS, the main challenging processes as sighted by majority of the respondents were risk management, effective handling of customer complaints, management of non-conformities, measurement/analysis of improvement, monitoring and evaluation. A few reported challenges in ensuring compliance with statutory and regulatory requirements, management of suppliers and external service providers, carrying out of internal quality audits, evaluation of internal and external stakeholders and management of environmental concerns. There is need for designing of training and effective coaching programmes that would build competence for businesses in these challenge areas.

A full report of this survey findings can be obtained from the KEBS National Quality Institute (KEBS NQI).

KEBS  
Together we deliver 2022

# Leadership

Each of us is self-motivated towards excellence, regardless of our title or designation. We strive to inspire our teams and customers to dream more, learn more, do more and become more.



## KEBS Strategic Plan 2017-2022 at glance

### Our commitment to our



**Vision**  
To be a global leader in standards based solutions that deliver quality and confidence



**Mission**  
To provide standards based solutions that promote innovation, trade and quality life.



**Motto**  
Standards for quality life

At the heart of KEBS 2022 are four themes that will drive operational excellence and investment in innovation.



As we pursue KEBS 2022, our operations will be focused on the following objectives:



We seek to entrench a positive culture of respect and fun in our organization guided by our core values;



We are accountable, honest, trustworthy, respectful and ethical in our actions. We maintain a level of independence that assures confidence;



We listen to both our internal and external customers and deliver an ever-increasing value to them;



We relentlessly pursue success and continuously look for new ways to improve our services and processes;



Our activities promote economic and social development while ensuring protection of the environment.



File picture

# Need for Leaders to Walk the Quality Talk

By Dr. Cecilia Mutuku

Someone once said content is king but this phrase has changed to “quality is king”.



We can never overemphasize on the role that quality plays in our lives. From the service that you receive from a company to the pen that one uses, unless a quality management system is put in place, the end product/service might not meet the set standards.

**A**s a trainer in Quality Management Systems, most of the time, I'm asked what is quality? In fact, when I throw back the question to the trainees many define quality based on attributes such as goodness, beauty, look or the feel. This is however imprecise as our perceptions of the same attributes differ. This can be confirmed by the saying that "beauty is in the eyes of the beholder".

The International Organization for Standardization (ISO) has therefore come up with a definition of quality which is "the degree to which a set of inherent characteristics of an entity fulfills requirements."

Hence, every year, a day is set aside (second Thursday of November) to increase awareness on the value of quality as an acknowledgment of the huge role it plays in our lives. The theme for 2017 World Quality Day (WQD) was "Celebrating everyday Leaders". This was timely as it reminded us all that we have an opportunity to be advocates of quality, be it in championing for quality products and services or promoting a processes approach, every day, all the time. It was also an opportunity to celebrate the quality drivers and champions in our organizations.

But who are the key quality drivers in any organization? Leadership at all levels is at the core of implementing an effective quality management system. In fact it is intentional that leadership, is one of the seven principles of ISO 9001: 2015 Quality Management Systems (QMS) because it provides commitment and also provides guidance for the systematic and continual improvement of an organization's overall performance.

The leaders have the responsibility to set the strategic direction of the organization. It's also their role to communicate the mission, vision, strategy, policies and processes besides, shaping the culture of the organizations by living what they believe is important. The values embedded in the culture and reinforced by the behavior of the leadership has an effect and not the idealistic well -crafted values listed in the strategic plans. The behavior of the leadership influences the quality culture hence the need to create and sustain shared values, fairness and ethical models for behavior at all levels of the organization.

The other six principles of Quality Management Systems (QMS), namely customer focus, engagement of people, process approach, improvement, evidence based decision making and relationship management are important but leadership is at the centre of them all. So why is leadership key if organizations in Kenya are going to produce quality products and services?

Indeed, leaders set the tone on how employees treat their customers. A leader who advocates for the interests of the customer and stakeholders acts as the conscience of the organization and will quickly take action to intervene to delight their customers. Another reason why the leadership is key, is that engaged employees are more likely to have enthusiasm and be keen to exceed customer expectation. Empowered employees too, take initiatives without fear and when their contribution is recognized, they focus more on quality. In fact, leaders who promote process approach and assign clear roles and responsibilities, evaluating performance at intervals promote quality products and services.

A recent survey that the National Quality Institute (NQI) undertook, found out that most decisions on adopting international standards are influenced by decision makers in an organization. The trend is worrying because to date, only 172 organizations are certified by the Kenya Bureau of Standards to the Quality Management System (QMS) standards despite the fact that quality affects us all, every day and without quality control, the world would be unpredictable and an unsafe place to live in.

For a quality culture to be entrenched, leaders should encourage an organization-wide commitment to quality and ensure that leaders at all levels are positive examples to people in the organization. Leaders also need to provide people with the required resources. These can only be achieved in an environment which consciously promotes quality because quality is not an act, but a habit as the great philosopher –Aristotle once said.

The writer is the Head of National Quality Institute (NQI) at KEBS and can be reached at [mutukucm@kebs.org](mailto:mutukucm@kebs.org)



By Cynthia Ndegwa

Did you know that the National Quality Institute (NQI) undertakes training for both individuals and institutions?

The Benchmark recently had an interview with Dr. Cecilia Mutuku, Head of National Quality Institute to help us understand better the role and importance of the NQI training to both individuals and organizations.

See below the interview

**Benchmark:** *What is the National Quality Institute?*

**Dr. Mutuku:** The National Quality Institute (NQI) is a department of the Kenya Bureau of Standards (KEBS) that was established in 2008 with the aim of entrenching the culture of quality in the country. Its main function is dissemination and transfer of knowledge on standards and more specifically management systems standards. This is done through trainings, workshops and seminars. The number of trainings has increased over the years with 326 trainings undertaken in the last financial year, 2016-2017, as compared to the previous year, 2015-2016, in which 299 trainings were done.

In the last financial year, sector specific workshops were conducted for Technical and Vocational Educational Training institutions (TVET) and Universities. For this financial year, we target the Savings and Credit Company's (SACCOs), Private Security firms, Human Resource practitioners and learning institution on food safety aspect.



In addition NQI runs a Membership Scheme which provides quality practitioners with a professional body for networking, recognition and support for Continued Professional Development (CPD).

**Benchmark:** *Who can attend NQI trainings?*

**Dr. Mutuku:** NQI trainings are open to individuals and institutions who desire to gain knowledge and skills to design processes, procedures and practices that deliver quality products and services. Currently, most of the trainings are on Quality Management System. The ratio of public sector to private sector that have gone through the QMS training in the last one year is 83:17.

Personnel trained on quality management systems have an opportunity to be implementers / champions of quality in their organizations. While those trained and qualify as Internal Quality Auditor and Lead Auditors have an opportunity to become auditors of management systems being implemented in their organizations.

For institutions starting the quality journey, the NQI trainings are structured to start with the Top Management to create awareness and seek commitment to implement the management systems. This allows them to support the implementers and auditors in order to have an effective management system. The implementers and internal quality auditing training take 4 days while the Lead auditor training takes six days. All the auditing trainings which equip the participants with auditing skills are examinable.

**Benchmark:** *What is Quality Management System?*

**Dr. Mutuku:** A quality management system (QMS) is a set of policies, processes and procedures required for planning and execution (production/ development/ service) of the same in the core business of an organization.

QMS takes up 70% of the NQI training.

QMS is based on seven principles which are:

Customer focus

Leadership

Engagement of the people

Process Approach

Improvement

Evidence based decision making

Relationship management

Once trained and certified, the quality auditors undertake internal audits to evaluate if, the management systems conform to organizations requirements and is effective to deliver the desired quality of products and services.

**Benchmark:** *How does NQI gauge if the trainings are impactful?*

**Dr. Mutuku:** To start with, we have seen growth in customers seeking our services and also seen repeat customers of our business which gives us confidence that our trainings have an impact. We evaluate all our trainings and the trainers to determine the effectiveness of the programmes, through feedback from our customers. In addition, we hold stakeholder forums including customer communication days during which we engage our customers. At such forums, the customers have an opportunity to share on the impact of the trainings to their organizations. Further, KEBS carries out independent surveys which help us have a better scope on the level of understanding on the quality standards among our clients.



*Dr. Cecilia Mutuku, Head of National Quality Institute at KEBS*

The Information Security Management System (ISMS 27001) is also becoming a popular standard. It focuses on a systematic approach to managing sensitive company information so that it remains secure.

**Benchmark:** *Do all organizations go through the same training(s)?*

**Dr. Mutuku:** NQI has 19 training modules. They include but not limited to trainings on; Knowledge Management, Environmental Management, Information Security Management, Food Safety Management, Risk Management, Business Continuity Management, Human Resource Management, Anti Bribery Management, Lean Six Sigma Green Belt and Customer Service. Our trainings are largely generic in nature and organizations decide which programs to attend. We sometimes customize the training for specific sectors or organization.

The Information Security Management System (ISMS 27001) is also becoming a popular standard. It focuses on a systematic approach to managing sensitive company information so that it remains secure. During the last financial year, NQI was able to hold 25 trainings on ISMS standard. Indeed, implementing this standard is one of the performance indicators in the current Performance Contracts for Ministries, Department and Agencies (MDAs).

The Human Resource Management (HRM) standards are new items on our list of trainings which aim at improving manpower planning, workload analysis, recruitment, human governance and sustainability in organizations. We are in the process of partnering with the Institute of Human Resource on the implementation of the same.

**Benchmark:** *What else does NQI offer?*

**Dr. Mutuku:** NQI also undertakes quality related surveys on the perception on quality, awareness on quality, and impact of standards on the culture of quality.

The NQI Membership Scheme provides quality practitioners with a forum for structured Continued Professional Development and recognition through registration of members. Some of the benefits that the members get include a supportive framework for advancement as a Quality professional, networking forum, sharing experiences and discounted rates on some programmes

**Benchmark:** *What is next for NQI?*

**Dr. Mutuku:** NQI is committed to drive the quality agenda in Kenya. To start off, NQI held the first forum for quality drivers in management systems in Kenya in Naivasha from 11th to 12 October 2017 where over 100 delegates participated.

To ensure that NQI reaches a wider spectrum and makes a bigger impact, it will continue to partner with relevant stakeholders so as to penetrate the SMEs. Further, NQI will continue to focus on sector specific standards in order to entrench a culture of quality.

Last but not least, NQI is committed to give quality practitioners in Kenya a voice and forum to advance their career. This is through the NQI Membership Scheme.

# KS 1758: Up Scaling Growth Of The Horticulture Sector

By Akinyi Odera

Kenya's Horticulture sector is now better placed to achieve monumental growth following the introduction of the revision of KS 1758. The new standard (part one and two) ensures continued access to key markets, with the EU being the most significant for Kenyan fresh produce.

**L**aunched in July 2017 following the review of the KS1758 part 1 and 2 in 2015, the standard will deliver improved confidence from consumers, increased revenue for the Kenya government, and enhanced efficiency and growth of the Horticulture sector.

For instance, the KS1758 part 2 tightens the hygienic and safety requirements within the entire fruits and vegetables value chain, with an intention to achieve quality production and marketing of produce from Kenya. It also responds to the dynamic market environment and the Industry's continuous effort to deliver quality products.

The reviewed standard has an extended scope - bringing on board breeders, propagators, shippers and cargo handlers who are all important value chain players and key to ensuring wholesome compliance and sustainability.

According to Kenya Flower Council (KFC) Chief Executive Officer, Ms. Jane Ngige KS1758 part 2 takes into account a detailed traceability system, that will not only poke holes into the breeding and handling processes, but also the social and environmental conditions under which the fresh fruits and vegetables have been produced.

"Such a structure will help us to know even the character of the growers, their ethos, which is key to enhancing compliance and helping us to deal with the rogue players in the market," said Ms. Ngige.

The fresh fruits and vegetables export market has traditionally faced a myriad of challenges, including stringent export requirements, continuously evolving market dynamics, post-harvest losses arising from poor handling, lack of short-term storage facilities, reduced profit margins for farmers, owing to the increased number of interceptions - some resulting from presence of pests in the export produce.

These challenges have prevented the sector from delivering maximum value. With the adoption of good agricultural



Launch of Kenya Standard KS1752 Part 2 - Fresh Fruits And Vegetables by KEBS and Kenya Flower Council (KFC).



File picture

practices (GAP) ingrained within KS1758, exporters will be able to reduce such challenges.

The Standards will also help to achieve a unified growth of the industry, whereby all producers and dealers of horticultural produce, including the Kenya brand, benefit from the positive effects of compliance to the new standard. “If for example, fresh fruits and vegetable are intercepted, they are all referred to as horticultural produce from Kenya. This means that the interception also affects flowers and ornamentals and also all growers, regardless of whether the grower used GAP,” notes Ms. Ngige.

Recent statistics from KFC the horticulture sector contributes an excess of Ksh110 billion (US\$1.1 billion) in total revenues, with flowers raking in a total revenue of Ksh70.2 billion (US\$700 million) last year.

In Kenya, horticultural exports have demonstrated huge potential in terms of both growth rates and overall demand, generating jobs that directly support a half million workers, small farmers, and their families. The sector additionally supports up to 2.5 million people indirectly.

Ms. Ngige notes that a key contributor to the growth of this sector is the formation of the Horticultural crop Directorate (HCD), which will harmonize interventions to drive the growth of the sector.

Amongst the interventions that are needful to enable growth of the sector includes training and building awareness for post-harvest handlers locally and within the overseas markets, lobbying of both national and county governments to enable a conducive business environment for the Horticulture exporters, formation of policies to enable forays into more international markets and development of infrastructural facilities such as modernized cool chain facilities especially for fruits and vegetables.

Following the introduction of the new KS1758, HCD has put in place measures to ensure that all exporters comply with the new requirements, by requiring them to belong to associations and adopting use of the KS1758 standard as the minimum requirement for the exporters to be issued with an exporting license by HCD.

The council has also taken into consideration the standard's ease of adoption – whereby even small farmers can easily comply with the required documentation and technical requirements, as compared to other standards.

KHC will work with Kenya Horticultural Corporate Directorate and Kenya Plant Health Inspectorate Service (KEPHIS) to ensure that the standard, which has already been positively received by farmers, is continuously effected.

According to Mrs. Margaret Aleke, Standard Officer at Kenya Bureau of Standards, the aim of the two standards, KS 1758 part 1 and 2 is to ensure safety of the horticulture products from the propagator to the consumer.

“Horticulture from Kenya was being rejected in the European market as most were found to have a high limit of residues that was high compared to international standards. Hence, KEBS and stakeholders developed the standards whose goal was beyond the food safety,” explains Mrs. Aleke.

KEBS does work in isolation when developing the standards but it is a collaborative exercise with stakeholders who will then benefit from these standards. For instance, for the horticulture sector, KEBS as the secretariat to the Technical Committee worked with representatives from the Ministry of Agriculture, Kenya Plant health inspectorate Service (KEPHIS), Horticultural Crops Directorate (HCD), University of Nairobi, Trade Associations (FPEAK, KFC) and exporters.



File picture

# New ISO Solution To Support The Sharing Economy Model

By Elizabeth Gasiorowski-Denis

Whether it's hailing a taxi, finding somewhere to stay on your travels or arranging help at home, new and sophisticated Websites and apps are ripping up traditional business models. A new ISO International Workshop Agreement aims to provide the foundation on which more standardization solutions to support the sharing economy can be built.

To address the challenges presented by the sharing economy, the Standards Council of Canada (SCC) led a workshop in March 2017 that developed an ISO International Workshop Agreement (IWA)1 in collaboration with CSA Group, an accredited standards development organization, and Canada's Office of Consumer Affairs (OCA), which is part of the federal government.

SCC facilitated the workshop that resulted in the new ISO International Workshop Agreement – IWA 27:2017, Guiding principles and framework for the sharing economy – which provides solutions for an effective and efficient sharing economy. Stakeholders from 15 countries, representing consumer organizations, government, industry and academia, came together to adopt, by consensus, specific guidelines that are proposed in the new IWA.

IWA 27 offers a framework for decision making and action to address key social, environmental and economic impacts and opportunities of the sharing economy. It will help governments keep pace with change, aid policy development and better protect consumers and industry.

"SCC recognizes the tremendous value of the sharing economy, and the importance of facilitating and leading the international discussion in this area," said John Walter,

Chief Executive Officer of SCC and ISO President-elect. "The IWA demonstrates what can be accomplished when experts come together from around the world to develop standardization solutions in new and innovative areas."

The sharing economy has grown significantly in the last decade and many companies are implementing this new style of business. Two notable examples are Airbnb and Uber, which are leading change in their respective industries solely based on sharing. But this new economic model comes with challenges, including tax, health and safety, and privacy, labour laws, to name a few.

The IWA 27 aims to:

- Articulate high-level principles for the sharing economy
- Foster the sharing of knowledge and best practices on meeting challenges that arise from sharing-economy business models
- Support the development of innovative responses to these challenges across multiple service sectors
- Propose standardization solutions that can be used to address a rapidly emerging market need or public policy requirement, and as a precursor to an International Standard

The new IWA can be used to guide the operations of people working in the sharing economy. It may also serve as the basis for a future national or international standard.

IWA 27 can be purchased from your national ISO member or through the ISO Store.



KEBS MD presents ISO 9001:2015 Certificate to The Chairman National Construction Authority, Mr. Steven Aundo and CEO Mr. Daniel Manduku. Looking on is Mrs. Carol Outa-Ogweno, Head of KEBS CB.

# The National Construction Authority Achieves ISO Certification

By Vera Akomo

Since its establishment in 2011, NCA has continuously strived to bring sanity into the construction industry in Kenya by putting in place proper management systems formally accessed and recognized by International Organization of Standardization (ISO).

**T**he National Construction Authority (NCA) was recently awarded ISO 9001:2015 certification on Quality Management Systems, as is provided for in the Authority's Strategic plan 2015-2020.

This stride is part of NCA's commitment to regulate, streamline and build capacity in the construction industry for sustainable socio-economic development.

The milestone has placed the Authority among organizations that emphasize on provision of quality services.

Other than determining and addressing its ability to enhance customer satisfaction, the system shall aid the process of ensuring that the organizational context is current in regards to internal and external issues as well as addressing the requirement of interested parties. The certification is key to making the construction industry more effective and efficient.

Steven Oundo OGW, the Chairperson of NCA said, "NCA will continually strive to ensure strict observance of quality, safety and sustainability in the construction industry alongside fundamental principles of environmental conservation, planning, and structural soundness."

"The Kenyan construction industry greatly contributes to the Gross Domestic Product (GDP) by approximately 7% and it remains one of the biggest employers with at least one million people earning their daily income from this industry," said Oundo.

According to Dr. Arch Daniel O. Manduku,

Executive Director of NCA, the adoption of a quality management system is a strategic decision taken by the Authority to help improve its overall performance and provide a sound basis for sustainable development initiatives within the construction industry.

Mr. Charles Ongwae, Managing Director, Kenya Bureau of Standards (KEBS) applauded the Authority's participation in the deliberations towards the adoption of Eurocodes in Kenya and urged them to proactively engage the industry to implement standards in their processes.

"With this certification, NCA demonstrates to its stakeholders that if we implement standards, we champion efficiency and as a result, save a lot of lives caused by structural failures attributed to poor workmanship and disregard for laid down regulations," said Ongwae.

Ongwae said KEBS' Certification Body has certified 174 organizations and NCA joins league of 32 organizations that have already transited to the new version of ISO 9001:2015. Firms have until September, 2018 to transit to ISO 9001:2015 from ISO 9001:2008.

ISO 9001: 2015 certification will provide a basis for the Authority's efforts to gain better process control and improvement, customer satisfaction, consistency in operations and development of a professional culture.

By implementing the gains available through an ISO 9001 quality management system, the Authority will leverage on brand credibility and image as attaining this certification will map the Authority as a world class government institution.



# The Standards and Market Programme

# Safeguarding Food Safety

The Support for the Standards and Market Programme, SMAP, is one of the flagship programmes that cement the long-standing partnership between the Government of Kenya and the EU. SMAP was launched in 2014 in response to concerns by national food control bodies regarding the need for a system to minimise the risks and hazards related to agricultural products.

By John Mwendwa

Safeguarding the food supply chain is a complex and challenging responsibility, which affects the health of consumers and the marketability of products both locally and internationally. Food safety standards address food production for plant and animal products, transport, packaging, storage, traceability and distribution by primary producers, manufacturers and distributors.

SMAP was established to achieve the following objectives:

- Contribute to standards and the safety of food for consumption locally and for export;
- To enhance the capacities of the key Kenyan institutions in the enforcement of standards for animal and plant-based products and in service delivery;
- To broaden the demand for testing and standardization of quality products among producers, processors and traders in Kenyan plant and animal based products.

## The rationale

Agriculture is the backbone of Kenya's economy. It directly contributes to 26 per cent of the GDP and 25 per cent indirectly. It is a source of livelihood for 70 per cent of rural populations and accounts for 65 per cent of Kenya's total exports, according to the 2015 Kenya Economic Survey conducted by Kenya National Bureau of Statistics.

The EU is an essential trade partner for Kenya. It continues to be the Country's largest export market

destination accounting for almost 25 per cent of overall exports from Kenya. It is the largest importer of Kenya's agricultural products, with Kenya's annual exports to the EU amounting to over Sh100 billion annually. 90% of EU imports from Kenya are agro-based and food products.

SMAP was supported with a 12.1 million Euro grant to improve the safety of agricultural products from the farm level to the dinner table whether the food is consumed in Nairobi or in Brussels.

Through EU SMAP implementing partners - the Kenya Bureau of Standards, the Kenya Plant Health Inspectorate Services (KEPHIS) and the Department of Veterinary Services and UNIDO, SMAP has been a success. It has led to safer production of food products for consumption both locally and internationally, which is critical to improved trade both at regional and international levels.

So far, KEBS has developed 80 food safety standards and regulations for Kenya Plant and Animal based products for eight key sectors including horticulture fresh produce, coffee, tea, milk and milk products, meat and meat products, cereals and pulses, fish and fishery products, and processed fruits.

The programme has also supported the development of technical regulations to govern the plant and animal products in relation to protecting humans, animals and plants from diseases that may have a direct or indirect impact on trade.

There is also strengthened institutional capacity for





File picture

As a result, safer and better quality Kenyan food is being produced, enhancing the market access, increased competitiveness and consumption of Kenyan products locally, regionally and internationally...

relevant testing and certification of Kenyan plant and animal based products including: Capacity building on official food controls – implementation of risk based approach in conformity assessment (inspection, testing, market surveillance and certification), enhanced product certification and inspection systems in line with international best practices as outlined in ISO 17065 and ISO 17020 respectively.

Residue and contaminant monitoring plans have been developed for six sectors namely meat and meat products, cereals and pulses, tea, milk and milk products, animal feeds, processed fruits and vegetables. There has also been increased capacity and competence for testing and calibration. SMAP has also carried out activities to build the capacity of farmers and participating private sector stakeholders including the Fresh Produce Exporters Association of Kenya (FPEAK), the Aqua-cultural Association of Kenya (AAK), the Kenya Livestock Marketing Council (KLMC), the Kenya Dairy Processors Association (KDPA) and the Kenya Association of

Manufacturers (KAM). These organizations have intimate knowledge of local production chains and provided voice and training to local populations by organizing smaller producers into groups.

Some of the training areas include Good Agricultural Practices (GAP), good hygiene practices, food safety, good veterinary practices, good transport practices, residue monitoring plans, required quality standards, for instance, and international regulatory requirements.

As a result, safer and better quality Kenyan food is being produced, enhancing the market access, increased competitiveness and consumption of Kenyan products locally, regionally and internationally including to the 500 million strong EU market where Kenyan products find a welcome market. This in turn improves livelihoods for millions of people who directly and indirectly depend on agriculture.

# News Roundup

## Missing Persons And Refugees – A New Target For Standardization?

By Maria Lazarte



File picture

By the end of 2016, over 65.6 million people worldwide were uprooted from their homes by conflict and persecution. Not only has this resulted in human suffering for those fleeing, but it has also created an important burden on host countries. At this year's meeting of the ISO Committee on developing country matters (DEVCO), guest speakers from the International Committee of the Red Cross (ICRC) and the Lebanese foreign ministry explored whether ISO's standards setting expertise could support the development of solutions for humanitarian work.

### Missing people and the Red Cross

"It will not come as a surprise that ISO standards are regularly used in the work of the International Committee of the Red Cross (ICRC)," said Prof. Jürg Kesselring, Chairman of the ICRC MoveAbility Board at the DEVCO meeting. The event, which brings together ISO members from around the world, explores how the ISO community can better support developing country needs and its members from developing countries.

Standards are helping the ICRC to improve efficiency and outreach, according to Prof. Kesselring. "When a product, activity or service meets ISO standards, there is a general expectation that it will be delivering what is expected from it. This applies to relief items, manufacturing, record management systems, hospital design, engineering, etc." He highlighted, as an example, the series of ISO standards

on societal security, which can be applied to mass evacuation and community resilience – subjects which are important to the ICRC. "In health or forensic fields," he added, "authorities often refer to validation and routine control done in accordance with ISO standards in order to show the seriousness of their processes."

But Prof. Kesselring believes there is more that can be done. He believes the ICRC, with its field experience and network, could collaborate with ISO and its members to develop standards for the humanitarian field, especially in the area of missing persons.

"Imagine saying goodbye to a loved one and not being able to say hello again," said Prof. Kesselring. "The trends are appalling. People who go missing remain one of the most damaging humanitarian consequences of past wars.

# News Roundup

## Kenya Adopts New ISO Handbook On Health Quality Management System

By Patricia Kimanthi

**K**enya has adopted a new handbook on quality health management system from ISO. The medical devices industry being one of the most highly regulated sectors in the world, there was need to come up with harmonised guidelines.

For instance, significant quality systems and product requirements must be satisfied to ensure the medical devices produced are fit for their intended purpose. Medical devices range from simple bandages and tongue depressors to the most sophisticated radiotherapy equipment, implants and software for disease screening.

These medical devices play an important role in the welfare of the public, whose safety depends on the quality and consistency of those medical products.

However, implementing a quality management system that maintains the effectiveness of its processes and meeting applicable regulatory requirements can be challenging for the sector. Organizations may be treading on the finest of lines between distributing safe and effective medical devices quickly to the market, gaining the trust of customers and meeting regulatory requirements.

The Handbook ISO 13485:2016 – Medical devices – A practical guide, seeks to address all these expectations.

Written by a group of technical experts from ISO's technical committee ISO/TC 210, Quality management and corresponding general aspects for medical devices, the handbook provides users with practical guidance and accurate interpretation of the requirements specified in the ISO13485:2016, Medical devices –

### Quality management systems – Requirements for regulatory purposes.

Mapped to the structure of ISO 13485:2016, the new handbook offers step-by-step guidance for all

organizations in the medical devices sector wishing to implement and maintain a quality management system.

It covers guidance applicable to various stages of a medical product's life cycle, including the gathering of customer requirements, design, development, production, supply chain, installation, servicing and post - market surveillance of medical devices.

Aimed at all organizations, regardless of size and the nature of their business, it helps create a level playing field and facilitate the market access of their products globally. The handbook can be used as the go-to reference when questions arise about specific requirements, their interpretation, and implementation strategies.

The handbook also serves as a practical guide for auditors, regulatory agencies and certification bodies, providing in-depth perspective on how requirements can be fulfilled to meet national regulations. It thus allows for a better understanding of the standard when preparing or conducting external and internal audits, as well as establishing local regulations and guidelines.

Alongside its thorough description of ISO 13485, the new handbook also incorporates information from other sources of best practice most commonly used in the medical devices industry to meet the requirements of ISO 13485:2016.

ISO 13485:2016 – Medical devices – A practical guide is available for purchase from your national ISO member and through the ISO Store.

### Useful links:

*ISO store:* <https://www.iso.org/standard/59752.html>

*Brochure:* [https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso\\_1](https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso_1)



File picture

CT Scan

# Kenyans Urged to Utilise **Short Sms Code 20023** for Product Authenticity

By Hellen Wahu

Kenyans have been urged to utilize the SMS short code and KEBS app to authenticate if a product is genuine.

While marking the customer service week, the Kenya Bureau of Standards staff across the country educated members of the public on various KEBS services.

Led by the organization's Managing Director, Charles Ongwae, took to the streets of Nairobi to educate Kenyans on KEBS role and mandate and showcasing how to embrace standards for quality life.

KEBS staff drawn from Market Surveillance and Corporate Communications, headed to shopping outlets where they engaged shoppers how to verify KEBS certified products.

This was reality for a good number of KEBS customers across the board as they got to meet and interact with KEBS leadership in their respective regions. The leadership who took on duty tasks for the week did not just stop there. They also went ahead to interact with members of staff at all levels in appreciation of their good work.

The MD said the week provided a great opportunity for Kenyans to experience some of the services offered by KEBS that they might or might not have been privy to. "As an organization, we aim at providing

standard based solutions for a thriving economy and by providing world class standardization services that deliver quality and confidence. Standards are part and parcel of our daily work. Being on ground, with the customers gives us first hand opportunity to show some KEBS services such as the short code service which is a simple way of identifying KEBS certified products", noted Ongwae.

During the visits, shoppers were also urged to take advantage of KEBS' SMS code service 20023 in verifying goods before purchase (i.e. send sms SM#Brand name or permit number to 20023) urging them to be vigilante when purchasing any goods and always to check on KEBS marks of quality.

The Customer Service Week which is held from 6th – 11th October aims at creating an environment that values quality services.

Ongwae further stressed that KEBS core mandate is to avail standards that are used to facilitate trade hence protecting consumers from harmful poor quality goods and finally protecting the environment.

He urged all stakeholders to cooperate with KEBS officers whenever they visit their outlets.



KEBS Standards For Quality Life

Verification on the authenticity of a product is just an **SMS** away with **KEBS SMS Code Service 20023**, for example Standardisation Mark (**SM#brandnameorSM#Permitnumber**), for Import Standardization Mark (**ISM#Uniqueserialnumber**) or Diamond Mark of Quality (**DM#Permitnumber**) and send to **20023**



**Send to 20023**

Please get the details for the KEBS account number for the service you wish to pay for from KEBS Website eg. 10010 for Payment of Standards Levy Services



# Fortification Partnership Fights Malnutrition In Kenya

By Jeremiah Kinywa

**U**sing a cross-sector approach to food fortification, a new multi-million dollar partnership has just been launched to address malnutrition, one of the most serious health problems in Kenya and other African countries.

The non-profit international development organization Techno Serve, along with the non-profit industry consortium Partners in Food Solutions (PFS) and Cereal Millers Association (CMA), a member organisation of Kenyan flour processors, are partnering to improve the capacity of manufacturers in fortifying maize and wheat flour with important nutrients.

The Strengthening African Processors on Fortified Foods (SAPFF) programme in Kenya, Nigeria and Tanzania--supported by a \$10 million grant from the Bill & Melinda Gates Foundation--will leverage partnerships with global food processing companies to provide business and technical expertise to Cereal Millers Association members.

Improving the efficiency, competitiveness, profitability of Cereal Millers Association (CMA) members is in turn expected to strengthen the capacity of millers to comply with regulations on fortifying processed foods that came into effect in 2013.

Food fortification has been widely identified as a cost-effective strategy for addressing micronutrient malnutrition at scale.

In Kenya, more than one in four children under the age of five is stunted, with poor nutrition a prime factor in nearly a third of deaths of children under five. Malnutrition also contributes to poor growth and physiological deficiencies in children, birth defects, high rates of disability and illness, and overall lower productivity, which can reduce

countries' GDPs.

Working with food processors is a key factor in improving food fortification, as rapid urbanisation in Kenya and other African countries has greatly increased the consumption of packaged and processed foods such as maize and wheat flour.

Kenya has had tremendous success with salt iodization programs introduced in 1990, and mandated edible oil, wheat flour and maize flour fortification in 2012. While the country is making steady progress on fortification, much more progress is possible.

"The Strengthening African Processors on Fortified Foods (SAPFF) programme is a holistic approach to increasing nutritious food availability by addressing challenges that millers face in the areas of efficiency, sourcing and capacity, which can complicate their efforts to improve food fortification," said Rizwan Yusufali of Techno Serve, Director of the Strengthening African Processors on Fortified Foods (SAPFF) project, while launching the programme.

The Strengthening African Processors on Fortified Foods (SAPFF) programme will enable Cereal Miller Association members to access expertise from companies under the PFS consortium, including General Mills, Cargill, Bühler, Ardent Mills, The Hershey Company and DSM.

"Cereal Millers Association welcomes this initiative under the Strengthening African Processors on Fortified Foods (SAPFF), as it will not only boost the processing capacities of our members but go a long way towards giving Kenyans access to healthier and more nutritious foods," said CMA Chairman Nick Hutchinson.



# ISO REGIONAL TRAINING ON ISO/IEC 17011:2017

*"General requirements for Accreditation Bodies  
accrediting conformity Assessment Bodies"*

# KEBS hosts 14 African Countries for Capacity Building on Accreditation Standard

By Janet Kaman

...the three-day conference was facilitated by ISO and aimed at creating awareness on the newly developed standard on accreditation and conformity assessment ISO/IEC 17011:2017 ...

Kenya Bureau of Standards hosted ISO Regional capacity building conference on ISO/IEC 17011:2017 – General requirements for accreditation bodies accrediting conformity assessment bodies. The conference brought together 14 African countries drawn from Eastern and Southern Africa region aiming at improving the overall performance of National Accreditation Bodies across the continent, while achieving a deeper knowledge of all the requirements of an accreditation body.

While addressing the delegates, Kenya Bureau of Standards (KEBS) Managing Director Charles Ongwae, said with increased complexity in the business environment, it was important that companies incorporate standards in the overall strategic plan.

“KEBS is honoured to be hosting the first ISO regional training on the new edition of the Accreditation body standard ISO/IEC 17011:2017 that was published two weeks ago on 30 November 2017,” said Ongwae.

Ongwae noted that 2017 was the year of Quality Infrastructure in Africa, hence it befitting, to host the first workshop on the new version of the Accreditation body standard which is a key pillar in building the quality infrastructure in Africa.

KEBS carries out management system certification activities with an aim of promoting industry competitiveness by providing internationally recognized conformity assessment services.

“We are at the forefront in influencing policies related to quality in various spheres of our economy. And we count on both public and private institutions to support us in delivering our mandate of standardizing Kenya by adopting standards,” added Ongwae.

Speaking during the same function, Caroline Outa, who is the Head of KEBS Certification Body, said the engagement is part of the global standard’s body strategic plan which aims at sensitizing key players.

“It has become clear that organizations around the world are benefitting from standards not only from the finished products but also from participation in the development process, hence the need for such engagements,” said Outa.

According to Outa, such benefits can only be realized if national members and their stakeholders participate in the process effectively.

Speaking during the same function, ISO Director for Conformity Assessment and Consumer Matters, Sean Mac Curtain, said the forum will be key in educating the African countries on the ISO/IEC 17011:2017 requirements for accreditation bodies and conformity assessment bodies.

“Countries have until 2020 to transition to the updated standard. We are encouraging African countries to transition and we call upon the National Focal Points to advocate for quality infrastructures,” said the ISO Director.

# Pictorials



Customer service week at KEBS Headquarters.



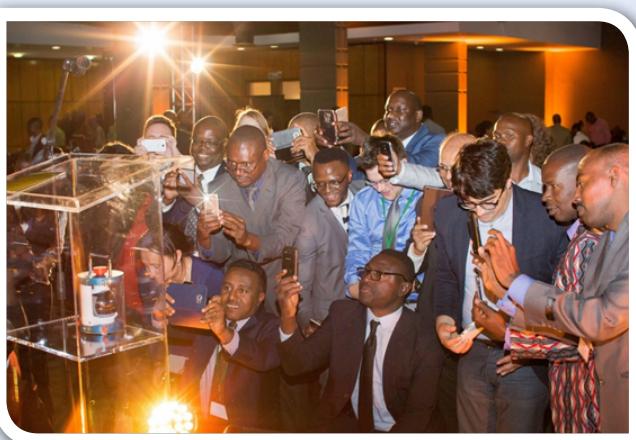
Customer service week in Mt. Kenya Region.



Cake cutting with Director, Metrology & Testing and Lake Regional Manager during Lake Region end year party.



Customer service week in Coast Region.

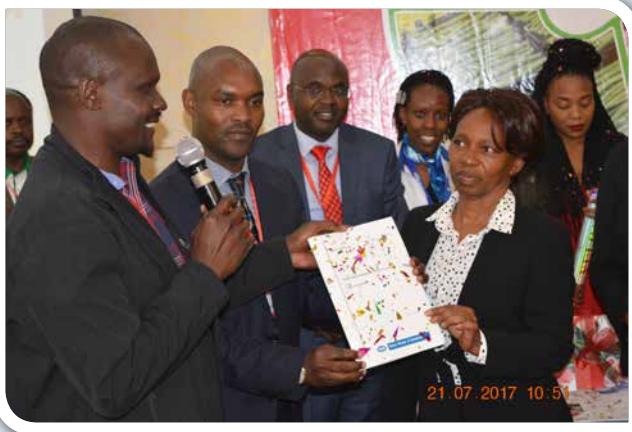


BIPM project on redefinition of the Kilogram donated by AFRIMETS during 2017 General Assembly in South Africa.



KEBS Director QA&I presents 9001:2015 Certificate to Prof. Peter M. F. Mbithi, Vice Chancellor, University of Nairobi.

# Pictorials



Launch of KS 1758 Horticulture Code of Practice.



ISO Regional Training on ISO/IEC 17011:2017 for Eastern and Southern Africa Region.



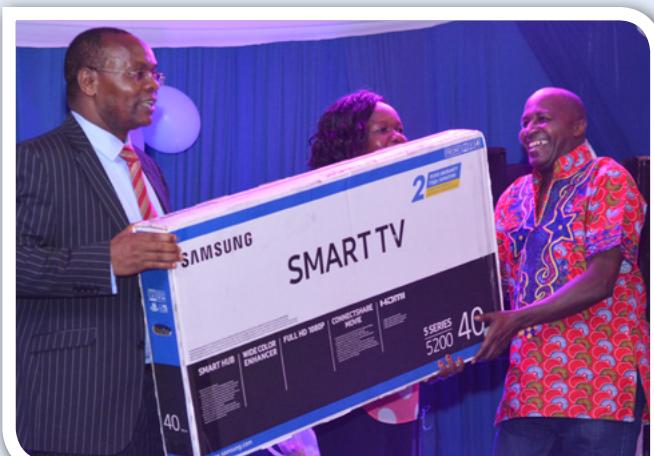
Cake cutting with National Standards Council Chair during KEBS end year party.



Participants during ISO Regional training on ISO/IEC 17011:2017 at Intercontinental Hotel.



KEBS MD demonstrates to shoppers how to verify KEBS certified product during customer service week.



KEBS MD presents smart TV to KEBS employee raffle winner during end year party.

# KEBS Partners with Pharmacy and Poisons Board to Inspect Imported

Medical Devices, Food Supplements, Medical Cosmetics, and Herbal Products; (PVoC) Programme.

By Evelyn Ongutu

The Kenya Bureau of Standards (KEBS) and Pharmacy and Poisons Board (PPB) have formed a partnership which will see all imported medical devices, food supplements, medical cosmetics, and herbal products inspected under the Pre-Export Verification of Conformity (PVoC) to Standards programme.

The Kenya Bureau of Standards (KEBS) and Pharmacy and Poisons Board (PPB) have formed a partnership which will see all imported medical devices, food supplements, medical cosmetics, and herbal products inspected under the Pre-Export Verification of Conformity (PVoC) to Standards programme.

The new guideline, will kick off on September 1st and is aimed at protecting the public against imported pharmaceutical products that do not comply with local quality standards and technical regulations.

The joint effort between the two organizations is aimed at leveraging KEBS' PVoC programme which inspects imported goods at the country of origin before they arrive in the country for sale/distribution.

The Pharmacy and Poisons Board (PPB) is the National Drug Regulatory Authority established under the Pharmacy and Poisons Act, Chapter 244, the Laws of Kenya. PPB is mandated to regulate the Practice of Pharmacy and the Trade

in Drugs and Poisons. KEBS is mandated to offer, among other services, quality inspection of imports based on Kenya Standards or approved specifications.

With this guideline, products and other allied healthcare borderline products falling under the regulated mandate of Pharmacy and Poisons Board must comply with the Pre-Export Verification of Conformity (PVoC) to Standards programme implemented by KEBS.

According to a notice by KEBS and PPB, the importers of medical devices, food supplements, medical cosmetics, herbal products must obtain Certificates of Conformity (CoC) for their cargo before applying for Import Permits from Pharmacy and Poisons Board through the Kenya National Single Window Electronic (Kentrade) System.

**Please find below more information on the new guidelines**

1. Pharmaceutical Manufacturers licensed by



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the Pharmacy and Poisons Board importing Raw Materials, Machinery and Spares for own use are exempted from the above requirements as outlined in PVoC manual on KEBS website ([www.kebs.org](http://www.kebs.org)).

2. Licensed Pharmaceutical Manufacturers are encouraged to obtain PVoC Exemption Certificate from KEBS in order to facilitate clearance of their cargo.
3. All imported goods arriving at port of entry without CoC will be subjected to destination inspection by KEBS upon payment of destination fees as provided for under Legal Notice No. 78.

#### About Pre-Export Verification of Conformity (PVoC) Programme

PVoC Program is a conformity assessment procedure applied at the country of supply on certain products to ascertain their compliance

with applicable Kenya Standards or approved specifications before shipment. The program is based on Legal Notice 78 of 15/ 07/2005.

#### Objectives of the program

1. Protects the public by ensuring products not meeting safety and quality requirements are stopped at source
2. Protection of the environment by ensuring the country is not a dumping ground for hazardous goods and obsolete equipment
3. Provision of cost effective process in the implementation of standards by ensuring quality inspection procedures are in harmony with modernized programmes undertaken by other major stakeholders e.g. Kenya Revenue Authority and Kenya Ports Authority among others
4. Minimizing cargo clearance turnaround times at the port of entry

## List of Standards Approved by the 115th Standards Approval Committee Meeting on 6th July 2017

### CHEMICAL DEPARTMENT



1. KS 2692-1:2017 Kenya Standard — Alcohol denaturants, First Edition
2. KS 400:2017 Kenya Standard — Acetic acid, Second Edition
3. KS 2709:2017 Kenya Standard — Number plates for motorized vehicle and trailers — Specification, First Edition
4. KS ISO 10416:2008 Kenya Standard — Petroleum and natural gas industries — Drilling fluids — Laboratory testing, First Edition
5. KS ISO 10414-1:2008 Kenya Standard — Petroleum and natural gas industries — Field testing of drilling fluids Part 1: Water-based fluids, First Edition
6. KS ISO 10414-2:2011 Kenya Standard — Petroleum and natural gas industries — Field testing of drilling fluids Part 2: Oil-based fluids, First Edition
7. KS ISO 23936-1:2009 Kenya Standard — Petroleum, petrochemical and natural gas industries — Non-metallic materials in contact with media related to oil and gas production Part 1: Thermoplastics, First Edition
8. KS ISO 23936-2:2011 Kenya Standard — Petroleum, petrochemical and natural gas industries — Non-metallic materials in contact with media related to oil and gas production Part 2: Elastomers, First Edition
9. KS ISO 13500:2008 Kenya Standard — Petroleum and natural gas industries — Drilling fluid materials — Specifications and tests, First Edition
10. KS ISO 13503-1:2011 Kenya Standard — Petroleum and natural gas industries
11. Completion fluids and materials Part 1: Measurement of viscous properties of completion fluids, First Edition
12. KS ISO 13503-2:2006 Kenya Standard — Petroleum and natural gas industries — Completion fluids and materials Part 2: Measurement of properties of proppants used in hydraulic fracturing and gravel-packing operations, First Edition
13. KS ISO 13503-3:2005 Kenya Standard — Petroleum and natural gas industries

14. Completion fluids and materials Part 3: Testing of heavy brines, First Edition

15. 1KS ISO 4046-1:2016 Kenya Standard — Paper, board, pulps and related terms — Vocabulary Part 1: Alphabetical index, First Edition

16. KS ISO 4046-2:2016 Kenya Standard — Paper, board, pulps and related terms — Vocabulary Part 2: Pulping terminology, First Edition

17. KS ISO 4046-3:2016 Kenya Standard — Paper, board, pulps and related terms — Vocabulary Part 3: Paper-making terminology, First Edition

18. KS ISO 4046-4:2016 Kenya Standard — Paper, board, pulps and related term — Vocabulary Part 4: Paper and board grades and converted products, First Edition

19. KS ISO 4046-5:2016 Kenya Standard — Paper, board, pulps and related terms — Vocabulary Part 5: Properties of pulp, paper and board, First Edition

20. KS 2719:2017 Kenya Standard — Transport of dangerous goods — Inspection requirements of road vehicles for the issue of dangerous goods transport permits, First Edition

21. KS 2324:2017 The Identification and classification of dangerous goods for transport by road and rail modes, Second Edition

22. KS 2383-3:2017 Kenya Standard — The warehousing of dangerous goods Part 3: The storage and handling of corrosive substances, First Edition

23. KS ISO 12632:2015 Kenya Standard — Graphic technology — Ink, paper and labels — Requirements on hot alkali penetration and resistance, First Edition

24. KS ISO/TS 15311-1:2016 Kenya Standard — Graphic technology — Requirements for printed matter for commercial and industrial production Part 1: Measurement methods and reporting schema, First Edition

25. KS ISO 17733:2015 Kenya Standard — Workplace air — Determination of mercury and inorganic mercury compounds — Method by cold-vapour atomic absorption spectrometry or atomic fluorescence spectrometry, First Edition

26. KS ISO 17179:2016 Kenya Standard — Stationary source emissions — Determination of the mass concentration of ammonia in flue gas — Performance characteristics of automated measuring systems, First Edition

27. KS ISO 18158:2016 Kenya Standard — Workplace air — Terminology, First Edition

28. KS ISO 18466:2016 Kenya Standard — Stationary source emissions — Determination of the biogenic fraction in CO<sub>2</sub> in stack gas using the balance method, First Edition

29. KS ISO 20581:2016 Kenya Standard — Workplace air — General requirements for the performance of procedures for the measurement of chemical agents, First Edition

### ELECTROTECHNICAL DEPARTMENT

30. KS ISO/IEC 30134-1:2016 Kenya Standard — Information technology — Data centres — Key performance indicators Part 1: Overview and general requirements, First Edition

31. KS ISO/IEC 30134-2:2016 Kenya Standard — Information technology — Data centres — Key performance indicators Part 2: Power usage effectiveness (PUE), First Edition

32. KS ISO/IEC 30134-3:2016 Kenya Standard — Information technology — Data centres — Key performance indicators Part 3: Renewable energy factor (REF), First Edition

33. KS 2416-2:2017 Kenya Standard — Information Technology — Learning, education and training Part 2: Minimum requirements for application software intended for eLearning — Specification, First Edition

34. KS 2416-1.4:2017 Kenya Standard — Information Technology — Learning, education and training Part 1.4: Server — Specification, First Edition

35. KS ISO/IEC TR 25010:2011 Kenya Standard — Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — System and software quality models, First Edition

36. KS ISO/IEC 29155-4:2016 Kenya Standard — Systems and software engineering — Information technology project performance benchmarking framework Part 4: Guidance for data collection and maintenance, First Edition

37. KS ISO/IEC TR 33014:2013 Kenya Standard — Information technology — Process assessment — Guide for process improvement, First Edition

38. KS ISO/IEC 15026-4:2012 Kenya Standard — Systems and software engineering — Systems and software assurance Part 4: Assurance in the life cycle, First Edition

39. KS ISO/IEC 15026-3:2015 Kenya Standard — Systems and software engineering — Systems and software assurance Part 3: System integrity levels, First EditioS ISO/IEC 15026-2:2011 Kenya Standard — Systems and software engineering — Systems and software assurance Part 2: Assurance case, First Edition

40. KS ISO/IEC TR 29106:2007/AM 1:2012 Kenya Standard — Information technology — Generic cabling — Introduction to the MICE



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- environmental classification AMENDMENT 1, First Edition
41. KS ISO/IEC 14709-1:1997 Amd 1:2004 Kenya Standard — Information technology — Configuration of customer premises cabling (CPC) for applications Part 1: Integrated services digital network (ISDN) basic access AMMENDMENT 1, First Edition
42. KS ISO/IEC 14709-2:1998/AMD1:2005 Kenya Standard — Information technology — Configuration of customer premises cabling (CPC) for applications Part 2: Integrated services digital network (ISDN) primary rate, First Edition
43. KS ISO/IEC 14763-1: 1999/Amd 1:2004 Kenya Standard — Information technology — Implementation and operation of customer premises cabling Part 1: Administration AMENDMENT 1, First Edition
44. KS ISO/IEC 14763-2:2012 Kenya Standard — Information technology — Implementation and operation of customer premises cabling Part 2: Planning and installation, First Edition
45. KS ISO/IEC 14763-3:2014 Kenya Standard — Information technology — Implementation and operation of customer premises cabling Part 3: Testing of optical fibre cabling, First Edition
46. KS ISO/IEC/IEEE 8802-3:2017 Kenya Standard — Information technology — Telecommunications and information exchange between systems — Local and metropolitan Area Networks — Specific requirements Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications, First Edition
47. KS ISO/IEC 8802-5:1998/Amd 1:1998 Kenya Standard — Information technology — Telecommunications and information exchange between systems — Local and metropolitan Area Networks — Specific requirements Part 5: Token ring access method and physical layer specifications AMENDMENT 1, First Edition
48. KS ISO/IEC/IEEE 8802-11:2012 Kenya Standard — Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks — Specific requirements Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications, First Edition
49. KS ISO/IEC 25001:2014 Kenya Standard — Software engineering - Product evaluation Part 2: Planning and management, First Edition
50. KS ISO/IEC 25040:2011 Kenya Standard — Systems and software engineering) — Systems and software Quality Requirements and Evaluation (SQuaRE) — Evaluation process, First Edition
51. KS ISO/IEC 25041:2012 Kenya Standard — Software engineering — Product evaluation — Evaluation guide for developers, acquirers and independent evaluators, First Edition
52. KS ISO/IEC 25051:2014 Kenya Standard — Systems and software Quality Requirements and Evaluation (SQuaRE) — Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing, First Edition
53. KS ISO/IEC/IEEE 2651:2011 Kenya Standard — Systems and software engineering — Requirements for managers of user documentation, First Edition
54. KS ISO/IEC 26300-1:2015 Kenya Standard — Information technology — Open document format for office applications (open document v1.0, First Edition
55. KS ISO/IEC 9075-3:2016 Kenya Standard — Information technology — Database languages — SQL Part 3: Call-Level Interface (SQL/CLI), First Edition
56. KS ISO/IEC 9075-4:2011 Kenya Standard — Information technology — Database languages — SQL Part 4: Persistent stored modules (SQL/PSM), First Edition
57. KS ISO/IEC 11404:2007 Kenya Standard — Information technology — General-Purpose Datatypes (GPD), First Edition
58. KS ISO/IEC 7812-1:2017 Kenya Standard — Identification cards — Identification of issuers Part 1: Numbering system, Second Edition
59. KS ISO/IEC 7812-2:2017 Kenya Standard — Identification cards — Identification of issuers Part 2: Application and registration procedures Second Edition
60. KS ISO/IEC 2382-37:2017 Kenya Standard — Information technology — Vocabulary Part 37:Biometrics, Second Edition
61. KS IWA 17:2014 Kenya Standard — Information and operations security and integrity requirements for lottery and gaming organizations, First Edition
62. KS IEC 60050-482:2004 Kenya Standard — International Electrotechnical Vocabulary Part 482: Primary and secondary cells and batteries, First Edition
63. KS IEC 60254-1:2005 Kenya Standard — Lead-acid traction batteries Part 1: General requirements and methods of tests, First Edition
64. KS IEC 60254-2:2008 Kenya Standard — Lead-acid traction batteries Part 2: Dimensions of cells and terminals and marking of polarity on cells, First Edition
65. KS IEC 60622:2002 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes
66. KS IEC 60623:2017 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Vented nickel-cadmium prismatic rechargeable single cells, First Edition
67. KS IEC 60896-11:2002 Kenya Standard — Stationary lead-acid batteries Part 11: Vented types — General requirements and methods of tests, First Edition
68. KS IEC 60896-21:2004 Kenya Standard — Stationary lead-acid batteries Part 21: Valve regulated types — Methods of test, First Edition
69. KS IEC 60896-22:2004 Kenya Standard — Stationary lead-acid batteries Part 22: Valve regulated types — Requirements, First Edition
70. KS IEC 60952-1:2004 Kenya Standard — Aircraft batteries Part 1: General test requirements and performance levels, First Edition
71. KS IEC 60952-2:2004 Kenya Standard — Aircraft batteries Part 2: Design and construction requirements, First Edition
72. KS IEC 60952-3:2004 Kenya Standard — Aircraft batteries Part 3: Product specification and declaration of design and performance (DDP) , First Edition
73. KS IEC 60993:1989 Kenya Standard — Electrolyte for vented nickel-cadmium cells, First
74. KS IEC 61434:1996 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Guide to designation of current in alkaline secondary cell and battery standards, First Edition
75. KS IEC 61951-1:2017 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Secondary sealed cells and batteries for portable applications Part 1: Nickel-Cadmium, First Edition
76. KS IEC 61951-2:2017 Kenya Standard — Secondary cells and batteries containing alkaline or other non acid electrolytes — Secondary sealed cells and batteries for portable applications Part 2: Nickel-metal hydride, First Edition
77. KS IEC 61959:2004 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Mechanical tests for sealed portable secondary cells and batteries, First Edition
78. — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications — Part 1: Nickel systems, First Edition
79. KS IEC 62133-2:2017 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Safety requirements for portable sealed secondary cells, and for batteries made from

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81. KS IEC 62485-4:2015 Kenya Standard — Safety requirements for secondary batteries and battery installations Part 4: Valve-regulated lead-acid batteries for use in portable appliances, First Edition
82. KS IEC 62620:2014 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Secondary lithium cells and batteries for use in industrial applications, First Edition
83. KS IEC 62675:2014 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Sealed nickel-metal hydride prismatic rechargeable single cells, First Edition
84. KS IEC TR 61438:1996 Kenya Standard — Possible safety and health hazards in the use of alkaline secondary cells and batteries — Guide to equipment manufacturers and users, First Edition
85. KS IEC TR 62188:2003 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Design and manufacturing recommendations for portable batteries made from sealed secondary cells, First Edition
86. KS IEC TR 62914:2014 Kenya Standard — Secondary cells and batteries containing alkaline or other non-acid electrolytes — Experimental procedure for the forced internal short-circuit test of IEC 62133:2012, First Edition
87. KS IEC/TR 61044:2002 Kenya Standard — Opportunity-charging of lead-acid traction batteries, First Edition
88. KS IEC 61056-1:2012 Kenya Standard — General purpose lead-acid batteries (valve-regulated types) - Part 1: General requirements, functional characteristics — Methods of test, First Edition
89. KS IEC 61056-2:2012 Kenya Standard — General purpose lead-acid batteries (valve-regulated types) - Part 2: Dimensions, terminals and marking, First Edition
90. KS IEC/TR 62060:2001 Kenya Standard — Secondary cells and batteries — Monitoring of lead acid stationary batteries — User guide, First Edition
91. KS IEC/TR 61430:1997 Kenya Standard — Secondary cells and batteries — Test methods for checking the performance of devices designed for reducing explosion hazards — Lead-acid starter batteries, First Edition
92. kS IEC/TS 61438:1996 Kenya Standard — Possible safety and health hazards in the use of alkaline secondary cells and batteries — Guide to equipment manufacturers and users, First Edition
93. KS IEC 60950-1: 2005 + AMD1: 2009 + AMD2:2013 Kenya Standard — Information technology equipment — Safety Part 1: General requirements, First Edition
94. KS IEC 60950-21:2002 Kenya Standard — Information technology equipment — Safety Part 21: Remote power feeding, First Edition
95. KS IEC 60950-22:2016 Kenya Standard — Information technology equipment — Safety Part 22: Equipment to be installed outdoors, First Edition
96. KS IEC 60950-23:2005 Kenya Standard — Information technology equipment — Safety Part 23: Large data storage equipment, First Edition
97. KS iEc 61032:1997/Cor 1:2003 Kenya Standard — Protection of persons and equipment by enclosures — Probes for verification, First Edition
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100. KS IEC 60422:2013 Kenya Standard — Mineral insulating oils in electrical equipment — Supervision and maintenance guidance, First Edition
101. Ks IEC 60270:2015 Kenya Standard — High-voltage test techniques — Partial discharge measurements, First Edition
102. KS IEC 60332-1-1:2015 Kenya Standard — Tests on electric and optical fibre cables under fire conditions Part 1-1: Test for vertical flame propagation for a single insulated wire or cable — Apparatus, First Edition
103. KS IEC 60332-1-2:2015 Kenya Standard — Tests on electric and optical fibre cables under fire conditions Part 1-2: Test for vertical flame propagation for a single insulated wire or cable — Procedure for 1 kW pre-mixed flame, First Edition
104. KS IEC 60332-1-3:2004 Kenya Standard — IEC 60332-1-3:2004+A1:2015 Tests on electric and optical fibre cables under fire conditions Part 1-3: Test for vertical flame propagation for a single insulated wire or cable — Procedure for determination of flaming droplets/particles, First Edition
105. KS IEC 60332-2-1:2004 Kenya Standard — Tests on electric and optical fibre cables under fire conditions Part 2-1: Test for vertical flame propagation for a single small insulated wire or cable — Apparatus, First Edition
106. KS IEC 60332-2-2:2004 Kenya Standard — Tests on electric and optical fibre cables under fire conditions Part 2-2: Test for vertical flame propagation for a single small insulated wire or cable — Procedure for diffusion flame, First Edition
107. KS IEC 60332-3-10:2008 Kenya Standard — Tests on electric and optical fibre cables under fire conditions Part 3-10: Test for vertical flame spread of vertically-mounted bunched wires or cables - Apparatus, First Edition
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109. KS IEC 60332-3-22:2000 Kenya Standard — Tests on electric and optical fibre cables under fire conditions Part 3-22: Test for vertical flame spread of vertically-mounted bunched wires or cables — Category A, First Edition
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113. KS IEC 60445:2010 Kenya Standard — Basic and safety principles for man- machine interface, marking and identification — Identification of equipment terminals, conductor terminations and conductors, First Edition
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121. KS IEC 60282-1:2009 Kenya Standard — High-voltage fuses Part 1: Current-limiting fuses, First Edition
122. KS IEC 60282-2:2008 Kenya Standard — High-voltage fuses Part 2: Expulsion fuses, First Edition
123. KS IEC 60670-1:2015 Kenya Standard — Boxes and enclosures for electrical accessories for household and similar fixed electrical installations Part 1: General requirements, First Edition
124. KS IEC 61643-11:2011 Kenya Standard — Low-voltage surge protective devices Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods, First Edition
125. KS IEC 60870-1-2:1989 Kenya Standard — Telecontrol equipment and systems Part 1: General considerations. Section one — General principles,
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129. KS IEC 60870-3:1989 Kenya Standard — Telecontrol equipment and systems Part 3: Interfaces (electrical characteristics) , First Edition
130. KS IEC 60870-4:1990 Kenya Standard — Telecontrol equipment and systems Part 4: Performance requirements, First Edition
131. KS IEC 60870-5-1:1990 Kenya Standard — Telecontrol equipment and systems Part 5: Transmission protocols — Section One: Transmission frame formats, First Edition
132. KS IEC/TR 60870-1-3:1997 Kenya Standard — Telecontrol equipment and systems Part 1: General considerations — Section 3: Glossary, First Edition
133. KS IEC/TR 60870-1-4:1994 Kenya Standard — Telecontrol equipment and systems Part 1: General considerations — Section 4: Basic aspects of telecontrol data transmission and organization of standards IEC 60870-5 and IEC 60870-6, First Edition
134. KS IEC/TR 60870-1-5:2000 Kenya Standard — Telecontrol equipment and systems Part 1-5: General considerations — Influence of modem transmission procedures with scramblers on the data integrity of transmission systems using the protocol IEC 60870-5, First Edition
135. KS IEC/TR 60870-1-1:1988 Kenya Standard — Telecontrol equipment and systems Part 1: General considerations — Section one: General principles,
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137. KS IEC 62053-52:2005 Kenya Standard — Electricity metering equipment (AC) — Particular requirements Part 52: Symbols, First Edition
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140. KS IEC 62056-3-1:2013 Kenya Standard — Electricity metering data exchange — The DLMS/COSEM suite Part 3-1: Use of local area networks on twisted pair with carrier signaling, First Edition
141. KS IEC 62059-32-1:2011 Kenya Standard — Electricity metering equipment - Dependability Part 32-1: Durability — Testing of the stability of metrological characteristics by applying elevated temperature, First Edition
142. KS IEC/TR 62059-11:2002 Kenya Standard — Electricity metering equipment — Dependability Part 11: General concepts, First Edition
143. KS IEC/TR 62059-21:2002 Kenya Standard — Electricity metering equipment — Dependability Part 21: Collection of meter dependability data from the field, First Edition
144. KS IEC/TS 61836:2016 Kenya Standard — Solar photovoltaic energy systems — Terms, definitions and symbols, First Edition
145. KS IEC/TR 62055-21:2005 Kenya Standard — Electricity metering — Payment systems Part 21: Framework for standardization, First Edition
146. KS IEC/TS 62351-1:2007 Kenya Standard — Power systems management and associated information exchange — Data and communications security Part 1: Communication network and system security — Introduction to security issues, First Edition
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149. KS IEC/TS 62351-4:2007 Kenya Standard — Power systems management and associated information exchange — Data and communications security Part 4: Profiles including MMS, First Edition
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156. KS IEC/TR 62351-12:2016 Kenya Standard — Power systems management and associated information exchange — Data and communications security Part 12: Resilience and security recommendations for power systems with distributed energy resources (DER) cyber-physical systems, First Edition
157. KS IEC/TR 62351-13:2016 Kenya Standard — Power systems management and associated information exchange — Data and communications security Part 13: Guidelines on security topics to be covered in standards and specifications, First Edition
158. KS 2542:2017 Kenya Standard — Off-grid solar photovoltaic lighting kits — Requirements, Second Edition



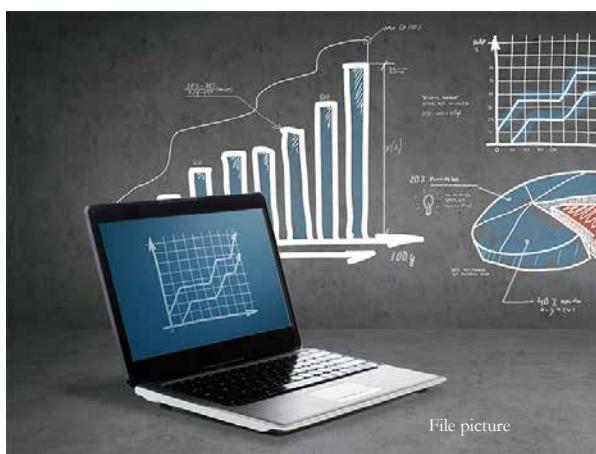
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154. KS IEC/TR 62351-10:2012 Kenya Standard — Power systems management and associated information exchange — Data and communications security Part 10: Security architecture guidelines, First Edition
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158. KS 2542:2017 Kenya Standard — Off-grid solar photovoltaic lighting kits — Requirements, Second Edition

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- 164.** KS 2720:2017 Kenya Standard — Specification for nonwoven disposable wet wipes, First Edition
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- 173.** KS 2645-5:2017 Kenya Standard — Special educational needs — Toolkit Part 5: Managing individual education plans, First Edition
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- 175.** KS 2645-12:2017 Kenya Standard — Special educational needs — Toolkit Part 12: The role of health professionals, First Edition
- 176.** KS 2716:2017 Kenya Standard — Public aquatic facilities — Design, construction and maintenance — Guidelines, First Edition
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- 180.** KS ISO 3864-3:2012 Kenya Standard — Graphical symbols — Safety colours and safety signs Part 3: Design principles for graphical symbols for use in safety signs, First Edition
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- 182.** KS ISO 28564-2:2016 Kenya Standard — Public information guidance systems Part 2: Guidelines for the design and use of location signs and direction signs, First Edition
- 183.** KS ISO 7001:2007 Kenya Standard — Graphical symbols -- Public information symbols, First Edition
- 184.** KS ISO 10244:2010 Kenya Standard — Document management — Business process baselining and analysis, First Edition
- 185.** KS ISO/TR 18159:2015 Kenya Standard — Document management — Environmental and work place safety regulations affecting microfilm processors, First Edition
- 186.** KS ISO 12651-2:2014 Kenya Standard — Electronic document management — Vocabulary Part 2: Workflow management, First Edition
- 187.** KS ISO 14533-1:2014 Kenya Standard — Processes, data elements and documents in commerce, industry and administration — Long term signature profiles Part 1: Long term signature profiles for CMS Advanced Electronic Signatures (CAdES), First Edition
- 188.** KS ISO 17369:2013 Kenya Standard — Statistical data and metadata exchange (SDMX), First Edition
- 189.** KS 2713:2017 Kenya Standard — Code of practice for hazardous installations, First Edition
- 190.** KS ISO 14123-1:2015 Kenya Standard — Safety of machinery — Reduction of risks to health resulting from hazardous substances emitted by machinery Part 1: Principles and Specifications for machinery manufacturers, First Edition
- 191.** KS ISO 14123-2:2015 Kenya Standard — Safety of machinery — Reduction of risks to health resulting from hazardous substances emitted by machinery Part 2: Methodology leading to verification procedures, First Edition
- 192.** KS 2092:2017 Kenya Standard — First aid kits — Specification, Second Edition
- 193.** KS 2708:2017 Kenya Standard — Transport of dangerous goods by rail — Operational and design requirements and emergency preparedness, First Edition
- 194.** KS 2214:2017 Kenya Standard — Adventurous tourism —Tour leader — Personal competency, Second Edition
- 195.** KS 2215:2017 Kenya Standard — Code of practice for tour guides, Second Edition
- 196.** KS 2462-3:2017 Kenya Standard — Hospital beds — Specification Part 3: Obstetric bed, First Edition
- 197.** KS ISO 21969:2009 Kenya Standard — High-pressure flexible connections for use with medical gas systems, First Edition
- 198.** KS ISO 27799:2016 Kenya Standard — Health informatics — Information security management in health using KS ISO IEC 27002, First Edition
- 199.** KS ISO 21549-7:2016 Kenya Standard — Health informatics — Patient healthcare data Part 7: Medication data, First Edition
- 200.** KS ISO 21549-8:2010 Kenya Standard — Health informatics — Patient healthcare data Part 8: Links, First Edition
- 201.** KS ISO 22220:2011 Kenya Standard — Health informatics — Identification of subjects of health care, First Edition
- 202.** KS ISO 13485:2016 Kenya Standard — Medical devices — Quality management systems — Requirements for regulatory purposes, First Edition
- 203.** KS ISO 21549-1:2013 Kenya Standard — Health informatics — Patient health card data Part 1: General structure, First Edition
- 204.** KS ISO 21549-2:2014 Kenya Standard — Health informatics — Patient health card data Part 2: Common objects, First Edition
- 205.** KS ISO 21549-3:2014 Kenya Standard — Health informatics — patient health card data Part 3: Limited clinical data, First Edition
- 206.** KS ISO 21549-4:2014 Kenya Standard — Health informatics — Patient health card data Part 4: Extended clinical data, First Edition
- 207.** KS ISO 21549-5:2015 Kenya Standard — Health informatics — Patient health card data Part 5: Identification data, First Edition
- 208.** KS ISO 22870:2006 Kenya Standard — Point-of-care testing (POCT) — Requirements for quality and competence, First Edition
- 209.** KS 2666:2017 Kenya Standard — Primary health care — Electronic medical record systems, First Edition
- 210.** KS ISO 18461:2016 Kenya Standard — International Museum Statistics, First Edition



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211. KS 2747:2017 Kenya Standard — Conservation of cultural heritage — Transport methods, First Edition
212. KS 2748:2017 Kenya Standard — Conservation of cultural property — Condition recording for movable cultural heritage, First Edition
213. KS 2749:2017 Kenya Standard — Cultural heritage — Guidelines and procedures for choosing appropriate lighting for indoor exhibitions, First Edition
214. KS ISO/IEC 17021-2:2016 Kenya Standard — Conformity assessment — Requirements for bodies providing audit and certification of management systems Part 2: Competence requirements for auditing and certification of environmental management systems, First Edition
215. KS ISO/IEC TS 17021-3:2013 Kenya Standard — Conformity assessment — Requirements for bodies providing audit and certification of management systems Part 3: Competence requirements for auditing and certification of quality management systems, First Edition
216. KS ISO/IEC TS 17021-4:2013 Kenya Standard — Conformity assessment — Requirements for bodies providing audit and certification of management systems Part 4: Competence requirements for auditing and certification of event sustainability management systems, First Edition
217. KS ISO/IEC TS 17021-9:2016 Kenya Standard — Conformity assessment — Requirements for bodies providing audit and certification of management systems Part 9: Competence requirements for auditing and certification of anti-bribery management systems, First Edition
218. KS ISO IEC TS 17023:2013 Kenya Standard — Conformity assessment — Guidelines for determining the duration of management system certification audits, First Edition
219. KS ISO 14052:2017 Kenya Standard — Environmental management — Material flow cost accounting — Guidance for practical implementation in a supply chain, First Edition
220. KS ISO/TS 14027:2017 Kenya Standard — Environmental labels and declarations — Development of product category rules, First Edition
221. KS ISO 14034:2016 Kenya Standard — Environmental management — Environmental technology verification (ETV), First Edition
222. KS ISO 10007:2017 Kenya Standard — Quality management — Guidelines for configuration management, Second Edition
223. KS ISO 19600:2014 Kenya Standard — Compliance management systems — Guidelines, First Edition
224. KS ISO 10018:2012 Kenya Standard — Quality management — Guidelines on people involvement and competence, First Edition
225. KS ISO 10256-1:2016 Kenya Standard — Protective equipment for use in ice hockey Part 1: General requirements, First Edition
226. KS ISO 20957-4:2016 Kenya Standard — Stationary training equipment Part 4: Strength training benches, additional specific safety requirements and test methods, First Edition
227. KS ISO 20957-5:2016 Kenya Standard — Stationary training equipment Part 5: Stationary exercise bicycles and upper body crank training equipment, additional specific safety requirements and test methods, First Edition
228. 225. KS ISO 8124-1:2014 Kenya Standard — Safety of toys Part 1: Safety aspects related to mechanical and physical properties, First Edition
229. KS ISO/IEC Guide 50:2002 Kenya Standard — Safety aspects — Guidelines for child safety, First Edition
- TRADE AFFAIRS DEPARTMENT**
230. KS ISO 22716:2007 Kenya Standard — Cosmetics — Good Manufacturing Practices (GMP) — Guidelines on Good Manufacturing Practices, First Edition
231. KS ISO 17516:2014 Kenya Standard — Cosmetics — Microbiology — Microbiological limits, First Edition
232. KS ISO 16128-1:2016 Kenya Standard — Guidelines on technical definitions and criteria for natural and organic cosmetic ingredients and products Part 1: Definitions for ingredients, First Edition
233. KS ISO 11930:2012 Kenya Standard — Cosmetics — Microbiology — Evaluation of the antimicrobial protection of a cosmetic product, First Edition
234. KS ISO 21148:2005 Kenya Standard — Cosmetics — Microbiology — General instructions for microbiological examination, First Edition
235. KS ISO 29621:2017 Kenya Standard — Cosmetics — Microbiology — Guidelines for the risk assessment and identification of microbiologically low-risk products, First Edition
236. KS ISO 20022-6:2013 Kenya Standard — Financial services — Universal financial industry message scheme Part 6: Message transport characteristics, First Edition
- ENGINEERING DEPARTMENT**
237. KS ISO 14692-1:2002 Kenya Standard — Petroleum and natural gas industries — Glass reinforced (GRP) piping Part 1: Vocabulary, symbols, applications and materials, First Edition
238. KS ISO 14692-2:2002 Kenya Standard — Petroleum and natural gas industries — Glass reinforced (GRP) piping Part 2: Qualification and manufacture, First Edition
239. KS ISO 14692-4:2002 Kenya Standard — Petroleum and natural gas industries — Glass reinforced (GRP) piping Part 4: Fabrication, installation and operation, First Edition
240. KS ISO 13703:2000 Kenya Standard — Offshore piping systems, First Edition
241. KS ISO 16904:2016 Kenya Standard — LNG marine transfer arms, First Edition
242. KS ISO 28460:2010 Kenya Standard — LNG ship to shore interface, First Edition
243. KS ISO/TS 16901:2015 Kenya Standard — Risk assessment in the design of onshore LNG installations, First Edition
244. KS ISO 4143:1981 Kenya Standard — Ship building- Inland vessels — Open rowing lifeboats, First Edition
245. KS ISO 7606:1988 Kenya Standard — Ships building- Inland navigation vessels — draught scales, First Edition
246. KS ISO 3935:1977 Kenya Standard — Ship building- Inland navigation — Fire-fighting water system — Pressure ranges, First Edition
247. KS ISO 3674:1976 Kenya Standard — Ship building- Inland vessels — Deck rail, First Edition
248. KS ISO 16528-2:2007 Kenya Standard — Procedures for fulfilling the requirements of KS ISO 16528-1, First Edition
249. KS ISO 6707-1:2014 Kenya Standard — Buildings and civil engineering works — Vocabulary Part 1: General terms, First Edition
250. KS ISO 3129:2012 Kenya Standard — Wood — Sampling methods and general requirements for physical and mechanical testing of small clear wood specimens, First Edition
251. KS ISO 3132:1975 Kenya Standard — Wood — Testing in compression perpendicular to grain, First Edition
252. KS ISO 13061-6:2014 Physical and mechanical properties of wood — Test methods for small clear wood specimens Part 6: Determination of ultimate tensile stress parallel to grain, First Edition
253. KS ISO 13061-7:2014 Physical and mechanical properties of wood — Test methods for small clear wood specimens Part 7: Determination of ultimate tensile stress perpendicular to grain, First Edition
254. KS ISO 22156:2004 Kenya Standard — Bamboo — Structural design, First Edition
255. KS ISO 22157-1:2004 Kenya Standard — Bamboo — Determination of physical and mechanical properties Part 1: Requirements, First Edition
256. KS ISO/TR 22157-2:2004 Kenya Standard — Bamboo — Determination of physical and mechanical properties Part 2: Laboratory manual, First Edition
257. KS 2177:2017 Kenya Standard — Weld mesh — Specification, Second Edition
258. KS 574:2017 Kenya Standard — Steel fabric for reinforcement of concrete — Specification, Fifth Edition
259. KS 104:2017 Kenya Standard — Cold rolled steel sections — Specification, Fourth Edition

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- 260.** KS 572:2017 Kenya Standard — Hot-rolled structural steel sections — Specification, Second Edition
- 261.** KS 2712:2017 Kenya Standard — Steel for the reinforcement of concrete — Weldable reinforcing steel — Bar, coil and decoiled product — Specification, First Edition
- 262.** KS ISO 16172:2011 Kenya Standard — Continuous hot-dip metallic-coated steel sheet for corrugated steel pipe, First Edition
- 263.** KS ISO 20805:2011 Kenya Standard — Hot-rolled steel sheet in coils of higher yield strength with improved formability and heavy thickness for cold forming, First Edition
- 264.** KS ISO 15177:2012 Kenya Standard — Hot-rolled twin-roll cast carbon steel sheet of commercial quality, First Edition
- 265.** KS ISO 14788:2011 Kenya Standard — Continuous hot-dip zinc-5 % aluminium alloy coated steel sheet, First Edition
- 266.** KS ISO 15179:2012 Kenya Standard — Hot-rolled twin-roll cast steel sheet of structural quality and high strength steel, First Edition
- 267.** KS ISO 15208:2012 Kenya Standard — Continuous hot-dip zinc-coated twin- roll cast steel sheet of commercial quality, First Edition
- 268.** KS ISO 15211:2012 Kenya Standard — Continuous hot-dip zinc-coated twin- roll cast steel sheet of structural quality and high strength steel, First Edition
- 269.** KS ISO 16160:2012 Kenya Standard — Hot-rolled steel sheet products — Dimensional and shape tolerances, First Edition
- 270.** KS ISO 16162:2012 Kenya Standard — Cold-rolled steel sheet products — Dimensional and shape tolerances, First Edition
- 271.** KS ISO 16163:2012 Kenya Standard — Continuously hot-dipped coated steel sheet products — Dimensional and shape tolerances, First Edition
- 272.** KS ISO 15304:2015 Cor 1:2013 Kenya Standard — Animal and vegetable fats and oils — Determination of the content of trans fatty acid isomers of vegetable fats and oils — Gas chromatographic method TECHNICAL CORRIGEDA, First Edition
- 273.** KS ISO 12966-1:2014 Kenya Standard — Animal and vegetable fats and oils — Gas chromatography of fatty acid methyl esters Part 1: Guidelines on modern gas chromatography of fatty acid methyl esters, First Edition
- 274.** KS ISO 27107:2008 Kenya Standard — Animal and vegetable fats and oils — Determination of peroxide value — Potentiometric end-point determination, First Edition
- 275.** KS ISO 21527-1:2008 Kenya Standard — Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds Part 1: Colony count technique in products with water activity greater than 0.95, First Edition
- 276.** KS ISO 11290-2:1998 Kenya Standard — Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of listeria monocytogenes Part 2: Enumeration method, First Edition
- 277.** KS ISO 14183:2005 Cor 1:2010 Kenya Standard — Animal feeding stuffs — Determination of monensin, narasin and salinomycin contents — Liquid chromatographic method using post-column derivatization, First Edition
- 278.** KS ISO 17372:2008 / Amd 1:2013 Kenya Standard — Animal feeding stuffs — Determination of zearalenone by immunoaffinity column chromatography and high performance liquid chromatography, First Edition
- 279.** KS 394:2017 Kenya Standard — Fresh green beans — Specification, Second Edition
- 280.** KS 787:2017 Kenya Standard — Fresh okra — Specification, Second Edition
- 281.** KS 788:2017 Kenya Standard — Fresh strawberry — Specification, Second Edition
- 282.** KS 789:2017 Kenya Standard — Fresh bulb onions — Specification, Third Edition
- 283.** KS 940: 2017 Kenya Standard — Fresh head lettuce — Specification, Third Edition
- 284.** KS 1046:2017 Kenya Standard — Fresh Asparagus — Specification, Second Edition
- 285.** KS 1050:2017 Kenya Standard — Fresh whole carrots — Specification, Second Edition
- 286.** KS 1078:2017 Kenya Standard — Fresh chillies — Specification, Second Edition
- 287.** KS 1169:2017 Kenya Standard — Fresh garden peas — Specification, First Edition
- 288.** KS 1298:2017 Kenya Standard — Fresh bottle gourd (dudhi) — Specification, Third Edition
- 289.** KS 1299:2017 Kenya Standard — Fresh bitter gourd (karela) — Specification, Second Edition
- 290.** KS 1300:2017 Kenya Standard — Fresh ridged gourd (turia) — Specification, Second Edition
- 291.** KS 1301:2017 Kenya Standard — Fresh ivy gourds (tindori) — Specification, Second Edition
- 292.** KS 1543:2017 Kenya Standard — Fresh cabbage — Specification, Second Edition
- 293.** KS 1544:2017 Kenya Standard — Fresh cauliflower — Specification, Second Edition
- 294.** KS CODEX STAN 193:1995 Kenya Standard — General standard for contaminants and toxins in food and feed, First Edition
- 295.** KS CAC/RCP 51:2016 Kenya Standard — Code of practice for the prevention and reduction of mycotoxin contamination in cereals, First Edition
- 296.** KS ISO 6647-1:2015 Kenya Standard — Rice — Determination of amylose content Part 1: Reference method, First Edition
- 297.** 294. KS ISO 6647-2:2015 Kenya Standard — Rice — Determination of amylose content Part 2: routine methods, First Edition
- 298.** KS ISO 5526:2013 Kenya Standard — Cereals, pulses and other food grains — Nomenclature, First Edition
- 299.** KS ISO 5527:2015 Kenya Standard — Cereals — Vocabulary, First Edition
- 300.** KS 2676:2017 Kenya Standard — Herbal and fruit infusions — Specification, First Edition
- 301.** 298. KS 2745:2017 Kenya Standard — Purple tea — Specification, First Edition
- 302.** KS 2744:2017 Kenya Standard — Orthodox tea — Specification, First Edition
- 303.** KS 317-1:2017 Kenya Standard — Carcasses and meat cuts for bovine meat - Beef and veal — Specification, Second Edition
- 304.** 301. KS 317-2:2017 Kenya Standard — Carcasses and meat cuts for ovine and caprine meat - lamb and mutton, goat — Specification, Second Edition
- 305.** KS 317-3:2017 Kenya Standard — Carcasses and meat cuts for pork — Specification, First Edition
- 306.** KS 2722:2017 Kenya Standard — Rabbit meat — Specification, First Edition
- 307.** 304. KS 2723:2017 Kenya Standard — Dried meat — Specification, First Edition
- 308.** KS ISO 20483:2013 Kenya Standard — Cereals and pulses — Determination of the nitrogen content and calculation of the crude protein content — Kjeldahl method, First Edition

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- 309.** KS EAS 826:2016 Kenya Standard — Dried fish — Silver cyprinid (*Rastrineobola argentea*) — Specification, First Edition
- 310.** KS EAS 827:2016 Kenya Standard — Fresh and frozen whole fin fish — Specification, First Edition
- 311.** KS EAS 828:2016 Kenya Standard — Dried and salted dried fish — Specification, First Edition
- 312.** KS EAS 829:2016 Kenya Standard — Transport of live fish seeds for aquaculture purposes — Code of practice, First Edition
- 313.** KS EAS 830:2016 Kenya Standard — Frozen fish sticks (fish fingers), fish portions and fish fillets — Breaded or in batter — Specification, First Edition
- 314.** KS EAS 832:2016 Kenya Standard — Fish industry — Operational cleanliness and hygiene — Guidelines, First Edition
- 315.** KS EAS 833:2016 Kenya Standard — Processing and handling of dried fish and fish products — Code of practice, First Edition
- 316.** SKS EAS 834:2016 Kenya Standard — Processing and handling of salted fish and fish products — Code of practice, First Edition

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2. KS 2674:2017 Kenya Standard — Paper and board food contact material — Specification, First Edition

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6. KS 583:2017 Kenya Standard — Socks — Specification, Third Edition
7. KS 584-1:2017 Kenya Standard — Stockings — Specification Part 1: Men's and boys' stockings, Third Edition
8. KS 584-2:2017 Kenya Standard — Stockings — Specification Part 2: Ladies stockings, Third Edition
9. KS ISO 105-J05:2007 Kenya Standard — Textiles — Tests for colour fastness Part J05: Method for the instrumental assessment of the colour inconstancy of a specimen with change in illuminant (CMCCON02), First Edition
10. KS ISO 18264:2016 Kenya Standard — Textile slings — Lifting slings for general purpose lifting operations made from fibre ropes — High modulus polyethylene



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11. KS ISO 14362-1:2017 Kenya Standard — Textiles — Methods for determination of certain aromatic amines derived from azo colorants Part 1: Detection of the use of certain azo colorants accessible with and without extracting fibres, First Edition
12. KS ISO 14362-3:2017 Kenya Standard — Textiles — Methods for determination of certain aromatic amines derived from azo colorants Part 3: Detection of the use of certain azo colorants which may release



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13. KS ISO 17881-1:2016 Kenya Standard — Textiles — Determination of certain flame retardants Part 1: Brominated flame retardants, First Edition
14. KS ISO 17881-2:2016 Kenya Standard — Textiles — Determination of certain

flame retardants Part 2: Phosphorous flame retardants, First Edition

15. KS ISO 17751-1:2016 Kenya Standard — Textiles — Quantitative analysis of cashmere, wool, other speciality animal fibers and their blends Part 1: Light microscopy method, First Edition
16. ISO 17751-2:2016 Kenya Standard — Textiles — Quantitative analysis of cashmere, wool, other speciality animal fibers and their blend Part 2: Scanning electron microscopy method, First Edition
17. KS ISO 9073-5:2008 Kenya Standard — Test methods for non wovens Part 5: Determination of resistance to mechanical penetration (ball burst procedure), First Edition
18. KS ISO 9073-7:1995 Kenya Standard — Test methods for non wovens Part 7: Determination of bending length, First Edition
19. KS ISO 9073-10:2003 Kenya Standard — Test methods for non wovens Part 10: Lint and other particles generation in the dry state, First Edition

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20. KS 2724:2017 Kenya Standard — Construction of suspended floor and roof with concrete ribs and hollow clay blocks — Code of practice, First Edition



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4-aminoazobenzene, First Edition

13. KS ISO 17881-1:2016 Kenya Standard — Textiles — Determination of certain flame retardants Part 1: Brominated flame retardants, First Edition
14. KS ISO 17881-2:2016 Kenya Standard — Textiles — Determination of certain

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