





African, Caribbean and Pacific Group of States

Capacity Building for the Quality Infrastructure Institutions of Kenya

"ACP-EU TBT PROGRAMME" (REG/FED/022-667)

Project code 054-15

FINAL TECHNICAL REPORT

May 2016

Project implemented by



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Abbreviations and acronyms

ACTIF African Cotton and Textiles Industries Federation

ARSO African Organisation of Standardisation

CA Conformity Assessment

CAB Conformity Assessment Body

GSP Generalised System of Preference

KAM Kenya Association of Manufacturers

KEBS Kenya Bureau of Standards

KENAS Kenya National Accreditation Service

KEPHIS Kenya Plant Health Inspectorate Service

KFC Kenya Flowers Council

KNCCI Kenya National Chamber of Commerce and Industry

NMI National Metrology Institute

ISO International Standard Organisation

PMU Project Management Unit
SPS Sanitary and Phitosanitary
TBT Technical Barriers to Trade

TA Technical Assistance

TFA Trade Facilitation Agreement

WTO World Trade Organisation



1. PROJECT SYNOPSIS

Contract Reference:	Country of Assignment:	Project Duration:	Contracting Authority:	
N°33/2015/WP2 KENYA 8 months		Project Management Unit (PMU) for the Implementation of TBT PROGRAMME REG/FED/022-667		
Project Title:			Reporting Period:	Date Issued:
Capacity Building for the Quality Infrastructure Institutions of Kenya			14/10/2015 – 14/06/2016	30/05/2016
Contractor: PRYSMA Calidad y Medio Ambiente SA			Project Director: Sara Menozz	i
			Project Team Leader: Fabio G	uoli
Main Beneficiaries:			Kenya Bureau of Standards (K	EBS) and
			Kenya Accreditation Service (k	(ENAS).

Brief Context of the Assignment:

The overall objective of the project is to enhance Kenya's Quality Infrastructure (in particular KEBS and KENAS) for facilitation of trade.

The purpose of the project is as follows:

- Enhancing the understanding of the WTO TBT and Trade Facilitation Agreements in Kenya among the quality infrastructure institutions.
- Strengthening the existing capacity of KEBS in development and harmonization of regional standards within EAC countries and enhancing credible conformity assessment of KENAS.
- Enhancing institutional capacity of KEBS and KENAS for delivering technical assistance on QMS for private sector in Kenya.

Results to be achieved by the Contractor

- Result 1 Situation analysis to identify the major challenges, constraints and specific capacity building needs as far as the implementation of the WTO TBT and Trade Facilitation Agreement is concerned.
- Result 2 The existing capacity of KEBS in development and harmonisation of regional standards within EAC countries is strengthened and existing capacity of KENAS for credible conformity assessment is enhanced.
- Result 3 The institutional capacity of the KEBS and KENAS for delivering technical assistance to SMEs is enhanced and private sector is more actively engaged in the KEBS and KENAS activities.
- Result 4 A final conference on project results and the WTO TBT and Trade Facilitation Agreements, International Standards Setting Organisations, Standards Development Process with engagement of the private sector to be conducted.



2. EXECUTIVE SUMMARY

Kenya has the largest and most diverse economy in East Africa growing at a satisfactory average rate of 6% per year during the period 2004-2007. These prosperous years were followed by two years with substantial less growth, mainly because of the post-election violence in 2008, droughts and the global financial crisis in 2008/2009. The economy picked up in the second half of 2010, while the economic growth prospects for 2013 and 2014 are relatively good (about 5% per year).

The Kenya Government has clear long-term policies, but operational plans at sector level are lacking. In 2008, the Government launched its Vision 2030, which is a long-term development blueprint and a follow-up of the previous Economic Recovery Strategy. Vision 2030 is accompanied by five-year implementation plans and by sectorial policies, including transport and agriculture.

The NTP (National Trade Policy) includes expanding and diversifying domestic and export trade, enhancing support for trade facilitation, promotion of e-trade, expanding and strengthening public-private partnerships, establishing a trade and investment information-sharing system, providing entrepreneurial skills for micro, small, and medium-size enterprises (MSMEs), supporting the improvement of the business and investment climate, formulating an appropriate trade-remedy regime, developing an appropriate negotiating structure and an integrated database on trade in goods and services, promoting trade in services.

<u>The overall objective</u> of this project is to enhance Kenya's Quality Infrastructure (in particular KEBS and KENAS) for facilitation of trade.

This TA project served to partially implement the issues addressed to the National Trade Policy-NTP, the project has been developed within the context of Kenya's Vision 2030.

In line with the Terms of References, all the activities have been developed with particular attention to the beneficiaries needs, including the requests for changes and updates, in synergy with the PMU.

A needs-assessment exercise was undertaken in November/December 2015 specifically to identify the country's current capacity, gaps and needs in order to implement the TBT-TFA Agreements.

During the project implementation several trainings and workshops were conducted for increase the capacity of KEBS and KENAS to understand the nature, provisions and scope of the TBT and TFA Agreements, including:

- ➤ Nature, scope and importance of TBT transparency obligations
- Challenges presented in the TFA
- Nature and process of TBT notifications
- > Differences between Voluntary and Compulsory standards (Technical regulations)
- > Requirements and institutions for implementing the TBT Agreement
- Use of the web page: Notify Kenya
- Searching, sourcing and handling notifications from other WTO Members



Coordinating and managing the implementation of the TBT Agreement

With regards to the private sector involvement in the project, during the first meeting in November 2015, KEBS proposed to focus this activity on three sectors: **flowers**, **leather**, and **textile**.

KEBS and KENAS are very well structured and organised Institutions. They represent a milestone for other East African Countries that are implementing a Quality Infrastructure. However, some aspects should be improved to ensure a high level of quality management in liaison with all the sectors involved in trade and production in Kenya.

The main recommendations for KENAS are:

- KENAS should strive to improve its own visibility to ensure better national and international coverage.
- KENAS should strive to ensure the robustness of its accreditation and assessment processes.
- The expansion of the national and international recognition of KENAS-accredited facilities, as well as its test, inspection and certification results, depend on the organisation's continued compliance with international accreditation requirements, and its ability to influence international accreditation criteria.
- Support regional integration and relations to advance Kenya's trade, industrial policy and
 economic development objectives locking in exports and locking out poor-quality goods and
 services are key objectives of the Kenyan technical infrastructure institutions of which
 KENAS is a key member. KENAS should play a leading role in developing the required
 accreditation infrastructure in Kenya and the rest of the East African Countries.

The main recommendations for KEBS are:

- KEBS should implement a more customer-oriented approach, according to the last mandate
 in ISO 9001:2005. The new rules of ISO 9001 require monitoring customer satisfaction and
 striving for continual improvement. It is this customer-focused approach that has led to the
 standards being requested of businesses looking to work with the public sector.
- KEBS should improve the infrastructures and equipment of material testing laboratories, including the safety equipment. However a commendable job has been done to maintain the measurement standards set up within the laboratories. On this basis and also in order to meet the increasingly sophisticated demands of industry the Metrology Institute with the support of the Government has embarked on an ambitious replacement and upgrading programme of its measurement standards and facilities. This is being implemented concurrently with personnel training to support the planned enhanced capabilities. This programme is now even more urgent as Kenya develops strategies and plans to service the needs of a middle income economy, as envisaged in the Government's Vision 2030.



- KEBS should plan a centralised database system to reduce paperwork in all the departments
 and ensure the traceability of measurements, with a complete history and registration of
 calibrated equipment and tested material.
- The maintenance and repair unit in the Metrology Department of KEBS could be upgraded into a national service for Kenya and could also service the region.
- The National Enquiry point should use the regional offices of KEBS to expand the training for the SMEs to assist them to understand the technical aspects of the notifications and the use of the web page: Notify Kenya.

With regards to the private sector involvement and the sectors considered (flowers, textiles and leather), the main recommendations are:

- 1) From a general point of view, KEBS involves the private sector at the level of Standard development and revision through technical committees where several kinds of stakeholders are around the table. Nevertheless, after this first steps, KEBS should be more participative and proactive with the sectors in terms of:
- Feedback from the private sector
- Channeling and diffusion of information to the private sector
- Impact assessment of regulation and standards
- 2) In order to be more inclusive in the informal sector and to improve the quality approach of those companies, KEBS should be more supportive and involved at the level of quality assurance training. The aim is to enhance the market performance in serving the low-cost leather goods market, to increase the quality of products manufactured and to support entrepreneurs to graduate from the informal to the formal sector.
- 3) KEBS should put in place a single window approach for leather and textile companies, with specialised and dedicated personnel, acting as an interface between SMEs and the different services provided by KEBS.
- 4) Dissemination of quality assurance at county level (and for other governmental institutions) in order to enhance knowledge and awareness (a well as at the level of companies) and have local relays (in parallel of KEBS regional offices). Special effort should be deployed due to this recent change, in order to increase communication and information exchange between counties and KEBS.



3. BACKGROUND

During the past few years, Kenya's economy continued to recover from the slowdown experienced in 2011. Real GDP growth in the year accelerated to 5.2%, 4.3% and 4.6% in the first three quarters of 2013 primarily driven by financial intermediation, tourism, construction and agriculture.

The government's agenda is to deepen implementation of devolution and strengthen governance institutions, while addressing other challenges including land reforms and security to improve economic and social outcomes, accelerate growth and equity in distribution of resources, and reduce extreme poverty and youth employment. Kenya's growth is projected to rise to 5.9% in 2016 and 6.1 % in 2017. The positive outlook is predicated on infrastructure investments. Fiscal consolidation is expected to ease pressure on domestic interest rates and increase credit uptake by the private sector. The contraction in the current account deficit will continue to be supported by declining commodity prices and rising exports of tea. Sound monetary policy restored stability in the currency markets and contained the 12-month average overall inflation at 6.6% in December 2015. The Central Bank effectively managed currency volatility and running down Forex reserves to cushion the shilling. So, the Kenya shilling stabilized, and the depreciation moderated in comparison to other regional currencies. Low commodity prices had a net positive impact in Kenya in 2015. The gains through low oil prices and the rising earnings from tea have offset the loss in earnings from other exports (coffee and horticulture). As a result, the current account deficit contracted from 10.4% to 7.1% of GDP.

It has been reported by the WTO Trade Policy Review in 2012 that Kenya is integrated into a number of global value chains – e.g. floriculture, textiles, leather, manufacturing and tourism – but economic and social benefits have been limited due to insufficient or unsustainable linkages with other sectors.

The Kenya Vision 2030 is the country's development blueprint covering the period 2008 to 2030. Its objective is to help transform Kenya into a, "middle-income country providing a high quality life to all its citizens by the year 2030". The NTP includes expanding and diversifying domestic and export trade, enhancing support for trade facilitation, promotion of e-trade, expanding and strengthening public-private partnerships, establishing a trade and investment information-sharing system, providing entrepreneurial skills for micro, small, and medium-size enterprises (MSMEs), supporting the improvement of the business and investment climate, formulating an appropriate trade-remedy regime, developing an appropriate negotiating structure and an integrated database on trade in goods and services, promoting trade in services.

<u>KEBS and KENAS</u> are the quality infrastructure institutions related to all fields of metrology, standardization and testing systems, quality management, and conformity assessment, including certification and accreditation.

<u>KEBS</u> started its operations in 1974. Its aims and objectives include development of standards, testing of products and calibration of measurement instruments, consumer protection, quality management, training for industry and dissemination of information relating to standardization.



KEBS has established regional offices in Mombasa, Nakuru, Nyeri, Garissa, Kisumu and Eldoret. It is funded by levies on all products manufactured under technical regulations, and receives only funds for building development from the Government. KEBS has a staff of approximately 950 people.

In 1999 the Quality Systems Accreditation Committee underwent the Pre-Peer Evaluation Programme of IAF, UNIDO and ISO. Following the Pre-Peer Evaluation Programme, it was decided to upgrade the Quality Systems Accreditation Committee to the Kenya National Accreditation Service (KENAS), to provide accreditation services to personnel, certification bodies, calibration centres, training, consultancy and laboratories.

<u>KENAS</u> is the Sole National Accreditation Body (NAB) mandated to offer accreditation services in Kenya. It is established under the States Corporations Act, Cap 446; vide Legal Notice No. 55 of May 2009. It gives formal attestation that Conformity Assessment Bodies (CABs) are competent to carry out specific conformity assessment activities.

KENAS is a member of the International Accreditation Forum (IAF) and an associate member at the International Laboratory Accreditation Cooperation (ILAC), which are apex organizations that oversee accreditation activities at a global level. KENAS carries out accreditation based on the following:

- Regional directives;
- Relevant statutes and government regulations;
- Requirements for health, safety, and protection of the environment;
- and the market and needs of clients.

4. ACTIVITIES CARRIED OUT

As presented in the following paragraphs, the project activities were implemented over a period of eight months, starting with a kick-off meeting in Brussels, Belgium and followed by several missions in Kenya carried out by the team leader, the key expert 2, the project director and several non key-experts for the provision of training activities.

A needs assessment report was undertaken to establish the current capacity and gaps of KEBS and KENAS, to plan the training in the areas of TBT and TFA agreement accordingly. The report also focused on the development of technical regulations based on standards, accreditation and their compliance to be carried out by the technical team of PRYSMA. Practical examples and hands-on exercises were planned to strengthen and demonstrate the application and practicability of the concepts exposed to technical staff of KEBS, KENAS and others relevant institutions in Kenya.

The Briefing Meeting was held in Brussels, at the PMU office, on 4th November 2015 with the presence of the Team Leader (Fabio Guoli), the Key Expert 2 (Bettina Balmer), the Project Director (Sara Menozzi) and the TBT expert from the PMU (Irina Kireeva).



The PMU representative introduced the Programme to the team, including recent experiences from projects carried out in other countries.

Several issues related to the contents of trainings, the planning and logistics were discussed during the meeting, including:

- ✓ The procedure for the selection of the non-key experts:
- ✓ For activity 2.1 PRYSMA proposed to the beneficiary the profile of a non-key expert specialised in standards, according to the methodology submitted;
- ✓ Work that can be done during the first mission of project implementation in preparation of activity 3.1 (Preparation of the Integrated stakeholder Engagement Plan and SMEs Support Programme) including Associations and different Stakeholders that should be previously contacted/met.
- ✓ Priority sectors to be considered for the work with the private sector in Kenya.

General project issues were discussed and the agreement reached was to give priority to the beneficiaries on the final decisions and suggestions.

The planning of the entire project, which ends on 14th June 2016, and the activities implementation were scheduled to ensure that the project outputs are delivered on time.

Initial meetings in Nairobi, Kenya with representatives from KEBS and KENAS were held on 9th and 10th November 2015, to review the Terms of Reference.

During these meetings, some aspects of the Terms of Reference were discussed and clarified by the respective members of KEBS and KENAS, especially for the activity where some changes were proposed to the technical assistance team.

After initial meetings with the beneficiaries, several different stakeholders were also met:

- ✓ Kenya National Chamber of Commerce and industry (KNCCI)
- ✓ Kenya Flower Council (KFC)
- ✓ Kenya Association of Manufacturers (KAM)
- ✓ Kenya Plant Health Inspectorate Service (KEPHIS)
- ✓ National Metrology Institute

The Terms of Reference were deeply analysed and reviewed during the initial meetings with KEBS and KENAS, with some requirement of changes by KEBS in the activity 2.2.

All the activities have been developed with particular attention to the beneficiaries needs, including the requests for changes and update, in synergy with the PMU.



Result 1: Situation analysis to identify the major challenges, constraints and specific capacity building needs as far as the implementation of the TBT Agreement is concerned and enhanced understanding of the Trade Facilitation Agreement.

Activity 1.1: Conducting situation analyses and capacity building needs for KEBS and KENAS

Kenya Bureau of Standards (KEBS) and Kenya National Accreditation Service (KENAS) were visited in the second half of November 2015 with the objective to assess these Institutions to improve a harmonised quality infrastructure for the reduction of TBTs, strengthen the competitiveness of enterprises, socioeconomic coherence and national-regional autonomy.

A needs assessment report has been elaborated and sent to KEBS and KENAS drafting recommendations in terms of capacity building needs and on priority measures to be taken for KEBS and KENAS.

Activity 1.2: Training on in-depth understanding and implementation requirements of the WTO TBT and Trade Facilitation Agreements, use of the enquiry point for Notifications on TBT, the trade-related policy for KEBS, KENAS and other relevant government regulatory agencies

During the first mission, a workshop and a roundtable to explain and analyse the National Enquiry Point were organised on 27th November 2015 at KEBS headquarter, with the participation of the stakeholders involved in quality and trade in Kenya. The workshop was very useful and a summary of the contents has also been presented during the Final Workshop on 13th May 2016 in Nairobi.

During the team leader second mission, a total of two workshops where organised at KENAS (25th February 2016) and KEBS (2nd March 2016) to explain all the articles and resolutions that the WTO TBT and TFA require to be implemented, in order to reduce barriers to trade in Kenya.

- 7 KENAS staff participated to the first Training session
- 11 KEBS staff participated to the second Training session

All the training materials were sent to the beneficiaries a week before the workshop. The materials are annexed to this report (Annex A2).

Result 2 – The existing capacity of KEBS in development and harmonisation of regional standards within EAC countries is strengthened and existing capacity of KENAS for credible conformity assessment is enhanced.

Activity 2.1 Capacity building to enhance Standardization Division of KEBS

In December 2015, the contractor requested to the beneficiary (KEBS) and the PMU an official approval on the trainer profile, Mr. Vicente Romero, as proposed in the technical methodology for the Activity 2.1. Both the beneficiary and the PMU agreed on the second week of March 2016 as the official date for training. The beneficiary gave his approval on 11th December 2015. The contracting authority confirmed its agreement on the training profile on 2nd February 2016.



The trainings were focused on Best Practices on Standardization both at National (Kenya), regional (EAS, ARSO) and International context (ISO, IEC). A special focus was also made on Best Practices implemented at EU level (CEN, CENELEC) in other to train KEBS's officers, especially on Standardisation. The trainings also involved members of national Technical Committees, including representatives from regulatory authorities in Kenya on the development of technical regulations and standards to implement government policies.

The content of the trainings were based on the requirements of the WTO Technical Barrier to Trade (TBT) Agreement:

- Preparation, adoption and application of technical regulations
- Terms and their definitions, and The code of good practice for the preparation, adoption and application of standardsIn line with ToRs requirements, specific topics covered were
- WTO definitions of the terms Technical regulations, Standards, and Conformity assessment procedures Good Regulatory Practice (GRP); Risk assessment; Regulatory impact assessment
- Performance requirements; Development of standards; Reference to standards in Technical
- RegulationsRequirements in Article 2.4 and 2.5 of the TBT Agreement to use international standards as abasis for the technical regulations
- Roles of an organisation for national standardisation in a global trade perspective,
- Recommendations for adoption of international standards as national standard.

The results of the courses were quite positive, both based on personal opinion of the non-key expert and the evaluation questionnaires of the participants. The training was as well as the technical topics were a good way to share daily best practices on standardisation between Kenyan officers and the consultant, based on the current situation in Kenya. The practical cases were useful and every day the presentations were modified based on interests showed by the participants in the meetings.

Activity 2.2 Revision of the East African Community Standards Quality Assurance Measurement and Testing Act (EAC SQMT Act 2006)

As mentioned in the inception report, this activity was originally designed to be held in 15 working days.

In November 2015, during the kick-off meetings, KEBS representatives proposed some changes to this activity and after final approval of the PMU, the activity was modified and the working days were distributed between the following activities:

Revision of the EAC-SQMT Act of 2006: (5 working days)

The revised version of the act was analysed by the team leader in a desk phase, checking all the details and articles, trying to set up a document with the last indications of the TBT-TFA WTO agreements, in the east African context.



This version of the act was finally analysed with KENAS representatives. The document has been simplified in order to avoid double interpretations, especially in the context of "mandatory standards" and the role of the Accreditation Services in the region. The personal of KEBS was invited several times to participate in the revision - however, due to other activities in the institution, they were unavailable to participate at this step of the revision.

The last version of the document revised is attached to this report as Annex A1

The final step for the revision of the document was the 3rd Meeting of Legal and Technical Experts (held on 4th and 5th May 2016 in Kampala-Uganda). The meeting sought to address the following:

- 1) Agree on contentious issues with respect to multiple regulatory controls Section 24(5)
- 2) Incorporate and align accreditation provisions

The final version of the document has been presented during the Final National Workshop on 13th May 2016 in Nairobi and next steps will be:

- The EAC Secretariat will submit the draft SACA Bill 2016 for consideration at the EASC and EAAB.
- Partner states with further comments to forward to the EAC Secretariat.

Support on the elaboration of National Standards (5 working days):

KEBS requested the elaboration of the following standards, to be analysed and revised in the second mission of the TL:

- 1. Specification for CKD Office Furniture
- 2. Specification for CKD Kitchens
- 3. Specification for Construction scaffoldings

Due to the limited participation of the furniture sector (office and kitchens) to complete the necessary specifications to start up the standards development for the CKD, this activity was impossible to achieve, and the time available was dedicated to the revision of the standards for the scaffolding sector.

In this sector, the following standards were analysed (from British EN standards) and the revised documents are attached as Annex A5:

- BS EN 39-2001: specification for loose steel tubes for tube and coupler scaffolds.
- BS EN 1139: requirements for aluminum tubing of the type used in tube and fitting scaffolding.
- BS EN 1139: Couplers (aluminum couplers and special couplers in steel) Requirements and test methods.



These documents will be analysed by the standard committee in KEBS following the normal procedures for standards development.

Market Impact Study of new standards on the use of synthetic motor oil car (5 working days).

In Kenya, the engine oils available in the common market are composed of very low quality, as they are made from recycled base oils. It is for this reason that KEBS received requests from the industry to set standards based on drain interval and not obsolete standards API specifications. The adoption of the use of synthetic oils as standard is seen as the best solution to these problems.

The market analysis was carried on during the second mission, with the support of the standard oils department of KEBS. Several producers and commercial enterprises were interviewed, with the aim to have a complete picture of the actual situation in this sector (Annex A5 - Synthetic oil standard in Kenya – Market Impact Study)

Activity 2.3 Selected KENAS staff is trained following the methodology Train Trainers in the field of Measurement of Uncertainty [ISO/IEC Guide 98-3:2008] and Method validation for general testing, calibration and medical testing.

Two 3-days training courses were organised and carried out by two NKEs. Each training course, with the following program:

- COURSE ON METHOD VALIDATION
 - o Introduction to Chemical and Physical Metrology.
 - Traceability to the SI.
 - o Introduction to the validation of methods: What?, why? when?
 - Standard reference materials. Use of SRM in the method validation
 - How the methods should be validated
 - Method performance characteristics.
 - o Introduction to ANOVA.
 - Examples of method validation in physical metrology
 - Quantifying uncertainty.
 - o Using validation methods and validation data.
 - Documentation for method validation
- COURSE ON ESTIMATION OF MEASURAMET UNCERTAINTIES
 - o Basic concepts of metrology, statistics and probability



- Type A and type B evaluation of standard uncertainty. Combined standard uncertainty.
- o Correlation of Input quantities.
- Expanded standard uncertainty: levels of confidence.
- Effective degrees of freedom
- Extended practical examples in: Mass, Temperature, Accelerometry, Length,
 Chemistry
- o The role of measurement uncertainty in conformity assessment.
- Medical testing: issues related to traceability, conformity and regulation.

Both training courses counted on practical sessions, where the attendees had the opportunity to practice what was shown in the theoretical session.

Each training course was attended by more than 30 participants and they contained the basic topics included in the project ToR, which were of relevance for them. The number of participants turned out to be a challenge for achieving the expected results of this activity. According to the trainers, it would have been more effective and efficient if no more than 15 people participated in each training course. The topics were highly-specialised and personalised attention was necessary to take full advantage of the training. Furthermore, the educational background and expertise field were unbalanced, increasing the difficulty to deliver a comprehensive level of training.

Nonetheless, the attendees expressed their satisfaction with the training courses. In some cases it was their first contact with the methods for estimation of measurement uncertainties. In general, most of them were very interested in the practical exercises performed during the training. The most interesting part of both courses was the practical calculation of uncertainties and some specific details regarding the accreditation processes and particular technical criteria.

The training course on method validation was followed without relevant difficulties. The course on uncertainties, apart from the most basic topics, required in-depth knowledge of statistics (such as the introduction to correlation between input variables or the role of the measurement uncertainty in conformity assessment) and it was difficult to follow for a significant part of the attendees.

Activity 2.4: Attachment Programme for KENAS staff

During the month of December 2015, KENAS contacted several possible host organisations for the Attachment Programmes.

Finally, the following list was prepared, including two organisations, which agreed on hosting an Attachment Programme, and two events related to the Accreditation activities. The list also includes the name of the proposed participants to each event:



ACCREDITATION BODY / WORKSHOP	TEAM ATTACHED	DESCRIPTION OF THE ACTIVITY
SANAS – South Africa	Felista Kerubo (Testing)	From 1 st to 5 th February 2016 took place the first Attachment Programme for 4 selected
	Doris Mueni (Medical)	staff of the KENAS at the SANAS in South Africa
	Robert Njuguna (Medical)	Major issues discussed and relevance for the work of the participants:
	Abdikher Dahiye (Medical)	Overview of SANAS operations
	, , ,	The assessment teams and their roles
		Sourcing, selection, training, monitoring & qualifications of assessors
		Allocation of assessment teams
		Monitoring of the assessors
		Different types of the assessments and their intent
		Pre-assessment Pre-assessment
		Post assessment process
		Operation of the accreditation committee
		Decision making process
		Use of accreditation symbols
		Operation of specialized committees
		ILC and traceability requirements
		Assessment of metrological traceability and uncertainty of measurements
		Requirements for calibration of medical equipment
SAC – Singapore	Abraham Wekesa (Inspection)	For the Second attachment Programme in Hong Kong, the hosting organisation only gave
then replaced by	Stanslaus Masinza (Inspection)	availability for a three days training and KENAS agreed with them a reduction of the
then replaced by	, , ,	Programme from 5 to 3 days. PRYSMA approved the reduction by email communication on
	Evelyne Kabongo (Certification)	3 rd February 2016



HKAS - Hong Kong	Michael Talam (Certification) Calvin Ochogo (Calibration)	The Attachment Programme in Hong Kong took place from 9 th to 11 th March 2016 for the 5 KENAS staff. The specific activities were: - Introduction to (i) HKAS, its operation and accreditation process; (ii) HKAS' accreditation schemes and programmes; (iii) experience sharing at HKAS Office - On-site observation of assessments (a 2-day assessment of a calibration laboratory and a 2-day assessment of a product certification body will be arranged in parallel) and especially on ISO/IEC 17025 + HOKLAS Policy; ISO/IEAC 17021 and IAF documents; ISO/IEAC 17067
ILAC MCC / IAF CMC Workshop	Elizabeth Muema	This event took place from 18 th to 21 st April in Pretoria, South Africa
Pretoria- South Africa	(Assistant Director, Communication and Public Relations)	On behalf of KENAS, Ms Elizabeth Muema, Assistant Director, Communication and Public Relations participated.
		The major issues discussed during the Meeting were:
		 Alternative means of communication and online marketing that can enhance awareness of accreditation services amongst Accreditation Bodies, which are relevant to the African online market Ways of publishing effective accreditation information and how to make it uniform across all communication channels of use by an Accreditation Body. How to optimize websites for better results as a information tool Review promotional material that have been developed by ILAC and IAF for relevance today Discuss proposal for the 2017 World Accreditation Day theme that is focused on
		the build environment and construction - Measuring social media through reviewing statistics



ILAC/IAF Mid-Year Meeting	Sammy Milgo (CEO)		From 30 th May to 3 rd April 2016 took place the ILAC/IAF Mid-Year Meeting in Frankfurt,
Frankfurt-Germany	Susanah Ochier Services)		Germany to which Sammy Milgo (KENAS CEO) and Susan Ochieng (Technical Services) participated The Programme contents of the Meeting were the following: - IAF TF Industry Specific Certification Programs (ISCP); IAF WG on MS Certification
			 (ISO/IEC 17021); ILAC AIC IAF TF CAAT MD4; IAF TF control of Entities Operating on behalf of Accredited Certification Bodies; IAF WG forests; IAF WG ISMS MLA Scope (ISO/IEC 27001); IAF WG Persons IAF TF Competence of AB assessors and Experts, IAF WG ITMS (ISO/IEC 20000); IAF WG Product (ISO 17065) IAF WG GHG and energy (ISO 14065); ; ILAC AIC IAF WG Medical Devices; IAF WG on APG and AAPG; JWG to improve Accreditation Bodies Consistency
			 ILAC PTWG; IAF TC; ILAC ARC; ILAC laboratory committee IAF TC; ILAC Inspection Committee; ILAC Laboratory committee; IAF TF Multi site & MD1; IAF WG Food IAF TF transfers MD2; Joint IAF/ILAC TF counterfeit certificates



The organisations and events proposed for the activity 2.4 were approved by the Contracting Authority with a formal letter dated 18th December 2015.

PRYSMA provided the flight booking to the participants and the daily allowance agreed with KENAS.

Activity 2.5: Participation at 2 CASCO (the ISO Committee) international meetings on revision of the ISO standard (ISO/IEC 17011:2004, Conformity Assessment – General Requirements for Accreditation Bodies Accrediting Conformity Assessment):

From 8th to 10th December 2015 the Participation at 2 CASCO (the ISO Committee) international meetings in Geneva was implemented.

The participation of Susan Ochieng (KENAS) was extended from 3 to 4 days after the official communication of the CASCO Committee. PRYSMA provided the flight booking to the participant and the daily allowance for 5 days.

After the meeting the participant submitted to PRYSMA a Mission Report, including the following attachments:

- Attendance list;
- Meeting agenda;
- ISO-CASCO-WG42_N0050_ISOIEC_CD_17011_-_changes_from_DG-TG inputs-CLEAN;
- ISO-CASCO-WG42_N0048_collated_comments_with_drafting_group_a;
- ISO-CASCO-WG42_N0047_Ballot_results_CD_ISOIEC_17011.

The Report was submitted to the PMU after the event.

The second event has been postponed to June (from 30th May to 2nd June 2016) as officially communicated by the CASCO ISO committee. The same participant, Susan Ochieng attended the CASCO Committee.

Result 3 – The institutional capacity of the KEBS and KENAS for delivering technical assistance to SMEs is enhanced and private sector is more actively engaged in the KEBS and KENAS activities

Activity 3.1: The KEBS Integrated Stakeholders Engagement Plan and SMEs Support Programme are drafted.

During the first meeting of the project in November 2015, KEBS asked to focus this activity on three sectors: **flowers**, **leather**, and **textile**.

The expected result, according to the ToR, were the following: "The institutional capacity of KEBS for delivering technical assistance to SMEs is enhanced and private sector is more actively engaged in the KEBS activities."



The mission was very short and intense, which made it very difficult to cover all the details in the three sectors due to the logistic and meeting scheduling.

For the future projects we suggest that the KE2 participate at the kick-off meeting in Nairobi. This would give the opportunity to meet both KEBS and KENAS at the commencement of the project and would sensitise the organisations to the need of a full commitment and interaction with the consultant, to facilitate contacts of relevant stakeholders and discuss priorities.

The results finally achieved were slightly different as compared to initial expectations, at least as described in the ToRs. Thus, it was decided, after consultation and agreement with the PMU and KEBS, to tackle the mission around three analyses:

- Main issues in the three selected sectors
- Interface between KEBS and the private sector
- Gaps and challenges of KEBS' departments in contact with the private sector (internal inquiry)

Those analyses have led to recommendations that should permit to KEBS to have a general overview of the main challenges for the improvement of its services to the private sector.

A complete report has been submitted to KEBS and the PMU for revision and approved in March 2016 (Annex A3 Technical Report on private sector).

Activity 3.2: Establishment of an inter-comparison scheme for high precision calibration laboratories in the country in liaison with KENAS and the National Metrology Institute

For this activity the contractor agreed with KENAS a list of tasks, also discussed with the Metrology Institute and which have been the scope of the mission of the selected non-key expert:

- Review of the Mass Protocol drafted by the Metrology Institute, discussion and provision of suggestions and recommendations to the Protocol;
- Workshop for 25 participants (NMI, KENAS and facilitators) to review and agree on protocol revision and plan of engagement;
- Assistance during the ILC programme commencement and assistance during data collection;
- The programme runs for three weeks;
- Publication of the report and closure.

The non-key expert worked in close cooperation with the National Metrology Institute and KENAS staff. The following tasks have been carried out:

- Revision of the protocol;
- Visits to the laboratories of force, torque, hardness, mass, acoustics and vibrations and expertise sharing;



- Support of KEBS force metrology responsible in the organisation of inter-comparison between calibration laboratories with a material testing machine as a transfer standard;
- Support of KEBS mass metrology responsible in the organization of inter-comparison between calibration laboratories with two balances as a transfer standards;
- Workshop to review and agree on the Protocol;
- Short seminar to the calibration laboratories with technical information about how to make the proposed calibrations properly;
- Support to KEBS to prepare the transfer standards for the comparison as well as the appropriate template to evaluate the result of the comparison;
- Support to KENAS on the establishment of the calibration and measurement capabilities for calibration laboratories of non-automatic weighing instruments;
- Support to KEBS mass laboratory on the calculations.

As originally planned, the NKE left the country while the ILC Programme was still in progress (expected total duration of the Programme was three weeks). Although it was agreed with the NMI and KENAS to receive from them the comparison data collected and review them home based, in Madrid.

The final Report on ILC Results (KEBS Balance) and the Technical Protocol are annexed to this report (Annex A2 Training materials and reports - Activity 3.2 ILC scheme ILC Reports).

Result 4 —Activity 4.1 A Final Conference on Project Results and the WTO TBT and SPS Agreements, International Standards Setting Organisations, Standards Development Process with engagement of the private sector

The scope of the conference, according to the ToR, was to disseminate the Project Results and the WTO TBT Agreements, International Standards Setting Organisations, Standards Development Process with engagement of the Private Sector.

In accordance with the representatives of KEBS and KENAS, the venue chosen for the final conference was the Intercontinental Hotel, considering the proximity to the city centre, the great choice of meeting rooms and the parking facilities. The conference date is fixed for 13th May 2016.

Almost 110 participants from the relevant institutions and interested stakeholder were invited, with a final participation of 64 persons. The list of participants is annexed to this report (**Additional project output Lists of participants**).

The project team leader, Mr Fabio Guoli, opened the conference with a short presentation of the project objectives and achievements. KENAS CEO and KEBS Director of the Standards Department gave a short speech as well as testifying their support for the work carried out within this project. Within the opening speeches, a representative of ARSO Central Secretariat also provided a short contribution.



KENAS and KEBS were well represented in the conference with the presence of 34 staff. In addition, representatives from the National Metrology Institute participated also with a short speech, presenting the work made on the ILC Protocol. There were seven private laboratories involved in the activity of inter-comparison, who also attended the workshop as well.

Representatives from the Ministry of Agriculture and the Ministry of Health also attended.

As anticipated, a KEBS representative participated to the speeches with a short presentation on the Notify Kenya system.

During the second part of the conference, the work done on the revision of the EAC SACA Bill was presented by the project team leader and a representative of KENAS. A representative from the EAC Secretariat coming from Kampala, Tanzania attending the workshop, provided his contribution to the work done on the revision of the Bill.

Those from the private sector who attended the workshop included representatives of KAM, ACTIF, the Kenya Footwear Manufacturers Association, Handloom Weavers Marketing Cooperative society (WEAMACO) and the Kenya National Federation of Jua Kali Associations.

During her presentation, the Key Expert on private sector, Ms Bettina Balmer (Key expert 2) asked for some participation of the public, in order to deepen the discussion and to have some interaction with the beneficiaries. The participation was good, the questions interesting and the stakeholders were focal with their views. Some of the issues already aired in KE2'report were mentioned by some participants, on the textile and leather sectors. KEBS also aired their views at the discussion.

A full page article was published the day of the conference, in The Standard national newspaper to further disseminate the activities and the results of the project. (A copy of the article is also annexed as **Additional project output The Standard Newspaper**)

All the material prepared for the final workshop and power point presentations are annexed as **Annex A2 Training Material and Reports on Trainings**. An electronic copy was provided to the participants.



5. TRAINING EVALUATION

For each training activity carried out, PRYSMA prepared and delivered two questionnaires using the official Programme Evaluation Questionnaire on workshops and seminars. One questionnaire for participants and one questionnaire for trainers were submitted at the end of each training session, including five questions on Organisation and Logistics, five questions on Training Implementation and Contents and three questions on Overall Assessment.

In order to assess the training evaluation in an objective way, each question required a score from 1 to 4, where 1 is completely dissatisfied and 4 very satisfied. The evaluation results were analysed in several excel sheets that are annexed to this report (Annex A2 Training Materials and Reports).

For the whole project we can conclude that the level of satisfaction has been very good.

The scores of satisfaction calculated out of 100) were the following:

Number of activity and title of the training/workshop	RANGE OF EVALUATION (OUT OF 100)
Activity 1.2 Regulators workshop and Notify Kenya	80-92
Activity 1.2 Training on WTO TBT and Trade Facilitation Agreements to KEBS	80-96
Activity 1.2 Training on WTO TBT and Trade Facilitation Agreements to KENAS	75-84
Activity 2.1 Trainings n ISO Guides to KEBS	91-96
Activity 2.3 Training on Uncertainty	82-79
Activity 2.3 Training on Method Validation	83-84

6. RESULTS ACHIEVED

In line with the Terms of Reference, all the activities have been developed with particular attention to the beneficiaries needs, including the requests for changes and update, in synergy with the PMU.

A rapid needs assessment exercise was undertaken in November/December 2015 specifically to identify the country current capacity, gaps and needs in order to implement the TBT-TFA Agreements. It focused on national TBT-related structures in terms of human resource and, to some extent, other complementary capacity requirements in Kenya.

Several trainings and workshops were conducted for increase the capacity of KEBS and KENAS to understand the nature, provisions and scope of the TBT and TFA Agreements, including:



- ➤ Nature, scope and importance of TBT transparency obligations
- Challenges presented in the TFA
- ➤ Nature and process of TBT notifications
- > Differences between Voluntary and Compulsory standards (Technical regulations)
- > Requirements and institutions for implementing the TBT Agreement
- Use of the web page: notify Kenya
- > Searching, sourcing and handling notifications from other WTO Members
- > Coordinating and managing the implementation of the TBT Agreement

As exposed below, despite the limited time available, it was possible to implement all the activities indicated in the ToR, with some changes in order to satisfy the needs of the beneficiaries.

ACTIVITY	RESULT
Kick-off (Brussels) and initial meeting with KEBS and KENAS	Common understanding, between the Consultant Team and the PMU with regards to action approach and timing. Active participation of KEBS and KENAS, with dynamic cooperation between stakeholders in delivering support to the team of experts.
Needs assessment in KEBS, KENAS and Metrology Institute. Activity 1.1	A report on Needs Assessment providing information to improve the infrastructure of the organisations and technical staff training was developed by the Consultant and shared with the Beneficiaries.
Enhancing the understanding of the WTO TBT and Trade Facilitation Agreements Activity 1.2	Several workshops and meetings with the beneficiaries allowed a deep understanding of rules and mechanisms of the TBT-TFA agreements to the technical staff in KEBS and KENAS, including the use of the notification point Notify Kenya. Capacity building needs were identified through consultations with KEBS and KENAS representatives, stakeholders from the public and private sector and the EU Delegation as well as policy documents and reports.
Strengthening the capacity on technical regulations and standards Activity 2.1	Strong participation in the trainings, focused on teaching about Best Practices on Standardisation both at National (Kenya), regional (EAS, ARSO) and International context



	(ISO, IEC). A special focus was also made on Best Practices implemented at EU level (CEN, CENELEC) in other to train KEBS's officers (especially the Standardisation ones). Development of standards on scaffoldings as
Development of a market study requested by KEBS Activity 2.2	requested by KEBS. Market Impact Study of new standards on the use of synthetic motor oil car developed and consigned to KEBS.
Revision of the East African Community Standards Quality Assurance Measurement and Testing Act (EAC SQMT Act 2006) Activity 2.2	The document has been simplified in order to avoid double interpretations, especially in the context of "mandatory standards" and the role of the Accreditation Services in the region. The final version will be submitted to the EAC committee for approval.
Selected KENAS staff is trained following the methodology Train Trainers in the field of Measurement of Uncertainty [ISO/IEC Guide 98-3:2008] and Method validation for general testing, calibration and medical testing Activity 2.3	Each training course was attended by more than 30 people. The training courses counted on practical sessions and the attendees expressed their satisfaction with results. In general most of them were very interested in the practical exercises performed during the training.
Attachment programme for KENAS staff Participation at 2 CASCO (the ISO Committee) international meetings Activity 2.4 Activity 2.5	SANAS (South Africa), HKAS (Hong Kong) ILAC MCC / IAF CMC Workshop, Pretoria (South Africa) and ILAC/IAF Mid-Year Meeting, Frankfurt (Germany) are the Institutions/Events selected for the programmes, with strong participation of KENAS technical staff with a complete satisfaction of the institution about the multiple inputs received in the conformity assessment and ISO standards. Two visits to CASCO (the ISO Committee) were organised in December 2015 and June 2016.
The institutional capacity of the KEBS for delivering technical assistance to SMEs is enhanced and private sector is more actively	Three sectors were involved: flowers, leather, and textile. These aspects were analysed: main issues in the three selected sectors



engaged in the KEBS activities. Activity 3.1	interface between KEBS and the private sector
ACTIVITY 5.1	gaps and challenges of KEBS' departments in contact with the private sector (internal inquiry)
	Those analyses have led to recommendations which should permit to KEBS to have a general overview of the main challenges for the improvement of its services to the private sector.
	A complete report has been submitted to KEBS and the PMU.
Establishment of an inter-comparison scheme for high precision calibration laboratories in the country in liaison with KENAS and the National	For this activity, several tasks were carried out, supporting the laboratories of force, torque, hardness, mass, acoustics and vibrations.
Metrology Institute Activity 3.2	Between the activities reported, the most significant for the institutions' upgrade, were:
	Support to KEBS (NMI) to prepare the transfer standards for the comparison, as well as the appropriate template to evaluate the result of the comparison.
	Support to KENAS about the establishment of the calibration and measurement capabilities for calibration laboratories of non-automatic weighing instruments.
Final Conference on Project Results and the WTO TBT and SPS Agreements, International	The conference was attended by 64 participants.
Standards Setting Organisations, Standards Development Process with engagement of the private sector Activity 4.1	The two key experts, KENAS CEO and KEBS Director of the Standards Department participated as speakers, as well as a representative of ARSO Central Secretariat, representatives from the National Metrology Institute and a representative from the EAC Secretariat coming from Kampala, Tanzania.
	Representatives from the ministry of Agriculture and Ministry of Health also attended the workshop.



KENAS and KEBS participated to the conference with the presence of 34 staff.

7 private laboratories, involved in the activity of inter-comparison participated as well to the workshop.

From the private sector attended the workshop the representatives of KAM, KALRO, ACTIF, the Kenya Footwear Manufacturers Association and the Kenya National Jua Kali Associations among others, participating with their comments to an open discussion for the textile and leather sectors.

7. KEY FINDINGS AND RECOMMENDATIONS

It has now become clear that, at higher levels within Government and industry, those directly associated with WTO have a definite understanding of TBT matters. This is, however, not true for all, and definitely not for SMEs struggling to survive or build business to acceptable levels in the international market.

Trainers need to be trained and structures - such as the pyramid system within KEBS, KENAS and the Kenya National Chamber of Commerce and Industry - need to be identified and used to organise country-wide workshops to transfer information and create a broad base of understanding.

KEBS infrastructures in Nairobi were built in the '70s and there is a clear need of renovation including offices and testing laboratories material. KEBS is making efforts to renovate and upgrade the laboratories; however, the need become urgent in textile, electricity and chemical testing laboratories, where the infrastructure (floors, windows, isolation and air condition-temperature control system) and some equipment must be upgraded urgently, to ensure the precision of tests.

Calibration equipment and reference standards will be affected by changes in a number of influencing parameters such as temperature, pressure, and relative humidity.

Although it is possible for standards laboratories to work under other environmental conditions and to correct their measurement results, so as to represent the calibration information at the reference conditions, considerable extra work and meticulous data processing is necessary to ensure that correct results are reported. The overall operation of a standards laboratory or of a test material and calibration equipment is simplified when the same reference environmental conditions are maintained in calibration laboratories. This decreases the probability of errors when writing or implementing reports.



KEBS and KENAS are very well structured and organised institutions and represents a milestone for other east African countries that are implementing a Quality Management Infrastructure.

However, some aspects should be improved to ensure a high level of quality management in liaison with all the sectors involved in trade and production in Kenya.

The main recommendations for KENAS are:

- Globally, growth in the demand for accreditation is driven by the regulatory sectors. National demand largely arises from the strategic role KENAS plays in the trade and production sectors in Kenya. Although the economic volatility in developed economies remains a challenge, the exceptional economic growth in Africa, linked with the continent's regional integration initiatives between EAC, SADC, the European Accreditation Cooperation (EAC) and the Common Market for Eastern and Southern Africa (COMESA) should further increase the demand for accreditation. In this framework, KENAS should strive to improve its own visibility to ensure a better national and international coverage.
- In order to contribute to industrial development, KENAS needs to deliver new accreditation
 programmes, developed over a shorter period of time, which are crucial to the success of
 Kenya's industrial development goals. Furthermore, regulators rely on accreditation as one
 of the conditions to allow CABs to operate within the regulatory domain. Herein KENAS
 should strive to ensure the robustness of its accreditation and assessment processes.
- The expansion of the national and international recognition of KENAS-accredited facilities, as well as its test, inspection and certification results, depends on the organisation's continued compliance with international accreditation requirements, and its ability to influence international accreditation criteria.
- Support regional integration and relations to advance Kenya's trade, industrial policy and
 economic development objectives locking in exports and locking out poor-quality goods and
 services are key objectives of the Kenyan technical infrastructure institutions of which
 KENAS is a key member. KENAS should play a leading role in developing the required
 accreditation infrastructure in Kenya and the rest of the East African Countries.

The main recommendations for KEBS are:

- KEBS should implement a more customer-oriented approach, as the latest in ISO 9001 version. The new rules of ISO 9001:2005 require monitoring customer's satisfaction and striving for continual improvement.
- As indicated above, KEBS should improve the infrastructures, equipment and material of testing laboratories. However, a commendable job has been done to maintain the measurement standards set up within the laboratories. On this basis and also in order to meet the increasingly sophisticated demands of industry, the Metrology with the support of the Government has embarked on an ambitious replacement and upgrading programme of its measurement standards and facilities. This is being implemented concurrently with



personnel training to support the planned enhanced capabilities. This programme is now even more urgent as Kenya develops strategies and plans to service the needs of a middle income economy, as envisaged in the Government's Vision 2030.

- KEBS should plan a centralised database system to reduce paperwork in all the departments
 and ensure the traceability of measurements, with a complete history and registration of
 calibrated equipment and tested material.
- The maintenance and repair unit in the Metrology Department of KEBS could be upgraded into a national service for Kenya and could also service the region.
- The National Enquiry point should use the regional offices of KEBS to expand the training for the SMEs to understand the technical aspects of the notifications and the use of the web page: Notify Kenya.

With regards to the **private sector** involvement and the sectors considered (flowers, textiles and leather), the main recommendations are:

- 1) From a general point of view, KEBS involves the private sector at the level of Standard development and revision through technical committees where several kinds of stakeholders are around the table. Nevertheless, after this first steps, KEBS should be more participative and proactive with the sectors in terms of:
- Feedback from the private sector
- Channeling and diffusion of information to the private sector
- Impact assessment of regulation and standards
- 2) In order to be more inclusive in the informal sector and to improve the quality approach of those companies, KEBS should try to support and involve at the level of quality assurance training. The aim is to enhance the market's performance in serving the low-cost leather goods market, to increase the quality of products manufactured and to support entrepreneurs to graduate from the informal sector to the formal sector.
- 3) KEBS should put in place a single window approach for priority sectors which need more support like leather and textile, with specialised and dedicated personnel, acting as an interface between SMEs and the different services from KEBS.
- 4) Dissemination of quality assurance at county level (and for other governmental institutions) in order to enhance knowledge and awareness (as well as at the level of companies) and have local relays (in parallel of KEBS regional offices). Special effort should be deployed due to this recent constitution change, in order to increase communication and information exchange between the new counties and KEBS.