



IN CONTEXT



*Technologist working with an autoclave at the
Food Laboratory*

TANZANIA BUREAU OF STANDARDS

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TBS IN CONTEXT

Tanzania Bureau of Standards (TBS) is Tanzania's sole standards body established by Act No. 3 of 1975 and subsequently amended by Act No. 1 of 1977. TBS is a parastatal organization under the Ministry of Industry, Trade and Marketing.

Functions

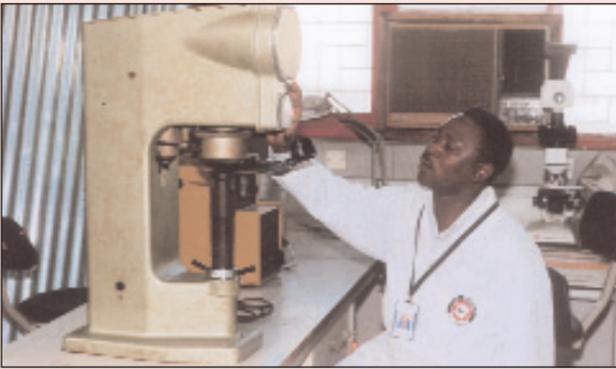
The main functions of TBS are:

- a. Formulation and promulgation of Tanzania standards in all sectors of the country's economy. Priorities have been established for national standards in the fields of textiles, leather, agriculture and food, chemicals, engineering and the environment.
- b. To implement the promulgated standards through third party Certification Schemes.
- c. To improve the quality of industrial products both for export and local consumption through various certification schemes like pre-export /pre-import inspection and testing, the tested product certification scheme and quality system registration.
- d. To promote standardization and quality assurance services in industry and commerce through training of personnel in company standardization, quality assurance, quality improvement and laboratory techniques.
- e. To undertake the testing of product samples drawn by TBS inspectors in the course of implementing standards (certification samples) or as requested by manufacturers (type-testing samples).
- f. To undertake calibration of industrial and commercial measuring equipment and instruments in the areas of mass, length, volume, energy, temperature etc.

Human Resource

TBS has a total staff of about 140 most of whom are university graduates mainly in scientific disciplines. Most technical staff have been trained abroad by reputable organizations dealing with Standardization and Quality Assurance activities such as: -

- The British Standards Institution (BSI)
- The Swedish Standards Institution (SIS)
- Bureau of Indian Standards (BIS)
- German Standards Institution (DIN)
- United Nations Industrial Development Organization (UNIDO)
- International Organization for Standardization (ISO).
- WHO/FAO Codex Alimentarius Com-mission



Technician testing the hardness of a hand hoe at the Materials Testing Laboratory (Mechanical)

Standards

Standards can be defined as consensus agreements between national delegations representing all the economic stake holders concerned, suppliers, users, government regulators and other interested groups, such as consumers. They agree on specifications and criteria to be applied consistently in classification of materials, in the manufacture and supply of products, in testing and analysis, in terminology and provision of services. In this way standards provide a reference frame work, or a common technological language between suppliers and their customers which facilitate trade and transfer of technology.

Why standards matter?

If there were no standards we would soon notice. Standards make an enormous contribution in most aspects of our lives. It is when there is an absence of standards that their importance is brought home. For example as purchasers or users of products, we soon notice when they turnout to be of poor quality, do not fit, are incompatible with equipment we already have, are unreliable or dangerous. When products meet our expectations, we tend to take this for granted. We are usually unaware of the role played by standards in raising the level of quality, reliability, efficiency and interchangeability as well as in providing such benefits at an economical cost.

Tanzania standards

TBS has an established National Standardization System through which national standards are formulated. This system is based on the worldwide 'consensus principle' which works through the use of technical committees. These committees draw members from all stakeholder groups including industries, government ministries and institutions, research institutions, institutions of higher learning, business organizations and consumers. By October 2007, TBS has been able to finalize about 1000 Tanzania standards. The finalized standards include product standards, test methods, codes of practice and codes of hygiene. The standards cover various sectors of the economy including food and agriculture, chemicals, textiles and leather, engineering, environment and general techniques.

Implementation of Standards

A number of industries and service organizations both in the public and private sectors have already adopted Tanzania standards in their manufacturing processes and purchasing programmes. Manufacturers producing products in conformity with Tanzania standards are granted licences to use the 'tbs' mark on their products. No body can ignore standards, as they affect every member of the society in whatever the activity is being done and wherever he/she is. By implementing standards, one is assured of better quality, safety, health and avoids unnecessary costs and wastages, hence increased productivity.

Also standards serve as guide for production of goods and services, provide basis for trade transactions, help technologists judge quality and performance and provide solutions to recurring problems.

The Standards Mark Scheme

TBS operates a Standards Mark Scheme, which allows manufacturers who have conformed to Tanzania standards to use the 'tbs' standards mark of quality on their products.

The 'tbs' standards mark of quality on a product indicates that samples of that product are independently and routinely tested and certified by TBS against the relevant Tanzania standards. The 'tbs' mark is a registered trade mark owned by TBS. Licence to use the mark is granted only to manufacturers conforming to the rigorous quality auditing requirements of the standards mark licensing procedures. The mark is a sign of product quality and gives assurance to both manufacturers and buyers that the product can be used safely and reliably.

The 'tbs' mark make people buy with confidence. On the other hand, it protects the manufacturers from competing with inferior products and proves to the market that their products satisfy all the requirements specified in Tanzania standards.



TZS.....

MARK APPLIED ON THE PRODUCT WITH A NUMBER FOR THE RELEVANT TANZANIA STANDARD (TZS.....)



TBS Ag Director Charles Ekelege (left) granting a client with a licence to use the "tbs" mark on products.

Batch Certification

As part of implementation of Government Notice No. 672 of 1998 (The Standards Compulsory Batch Certification of Imports) Regulations, TBS has introduced Batch Certification Scheme for all imports covered by compulsory standards. This is to avoid Tanzania being turned into a dumping ground for substandard goods by unscrupulous traders.

A number of import consignments have been condemned as substandard. These include hand hoes, fertilizers, edible oils, cement, bicycle tyres and toothbrushes, to mention a few.

Quality Management System Registration schemes

TBS operates Management System Registration schemes such as Quality Management System and Environmental Management System.

Companies registered to ISO 9001 (Quality Management Standard) have realized that:-

- their market opportunities have increased;
- customer complaints have been reduced dramatically;
- operating costs have been significantly reduced;
- demand for their products and services has increased.



TBS inspectors leave a supermarket with samples after a surveillance inspection.

Further, companies having Environmental Management System (EMS) in place have realized cost savings as well as reduction of environmental liability. EMS standards stress the need for continuous improvement in striving to perfect the environment not only for ourselves but for future generations.

Testing at TBS

The TBS Test House was established in 1982 to assist manufacturers to improve the quality of their products, provide facilities for the testing of products to ensure their suitability for their intended use, and verify pre-export and pre-import product quality. The TBS Test House provides quick, accurate and confidential test facilities for type testing, audit testing, technical guidance and advice on test methods and training of laboratory personnel. Tests are carried out to Tanzania, other national and ISO standards as well to the client's specifications.

The Test House covers the following testing facilities:

1. The Chemistry Laboratory

The Chemistry Laboratory at the TBS Test House was established to provide test facilities and services for all chemical and allied products.



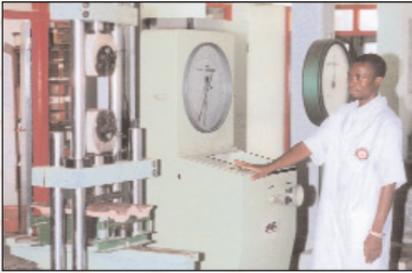
Chemist at work in the Chemistry Laboratory

2. Material Testing Laboratory (MTL)

Incorrectly designed or specified materials and equipment can cause serious injury and/or considerable damage to property. In order to minimize these hazards, TBS offers the facility of materials testing. Only through rigorous testing and competent assessment of components and equipments can the user be assured that they meet the relevant safety requirements. The laboratory covers testing facilities in the fields of electricity, mechanical and civil engineering.



Technologist testing strength of aluminum wire at the TBS Materials Testing Laboratory (Electrical)



Technician measuring the strength of concrete roofing tiles at the TBS Materials Testing Laboratory (Building and Construction)

3. The Food Laboratory

The Food Laboratory at the TBS Test House provides test facilities for all food and agricultural products. Tests are carried out to detect contaminants of all types and prove food wholesomeness and safety.

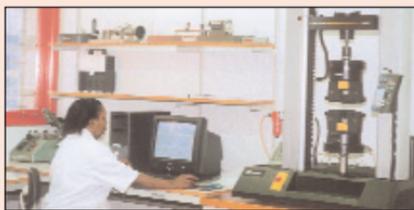
In addition, the Food Laboratory provides special service to exporters of fish and fish products e.g. prawns and lobsters by issuing them with sanitary certificate which certifies that a particular consignment conforms to the accepted code of hygiene.



Microbiologist counting colon of microorganisms in a tested food sample at the TBS Microbiology Laboratory

4. The Textile and Leather Laboratory

The Textile and Leather Laboratory was established to provide test facilities for both the textile and leather industries. It also trains textiles and leather analysts in good laboratory techniques. Physical testing is done at ISO recommended atmospheric conditions for tropical countries. This Laboratory is well equipped to test the quality of Condoms.



Textile technologist testing tensile strength of textile samples at the Textile Laboratory

5. Metrology Laboratory

In Tanzania, the statutory responsibility of establishing custody and maintenance of the National Measurement Standards related to all physical parameters, at internationally accepted level of accuracy, is entrusted to the TBS Metrology Laboratory.

The laboratory undertakes apex level calibration of measurement standards and precision instruments in various fields of measurements such as length, mass, temperature, force, volume (including calibration of vertical and horizontal bulk storage tanks), pressure, D.C. and A.C. measurements.

TBS understands the importance of equipping itself with a prompt calibration facility and is therefore equipped with a mobile calibration facility which provides on-site fast and convenient services at the customer's location, thus ensuring promptness, saving time and averting transport costs on the part of the customer.

TBS instruments used in calibrating other instruments and measuring equipment in the country, are re-calibrated by the National Physical Laboratory

(NPL) in South Africa to ensure that their accuracy is maintained. The NPL maintains traceability of its primary standards to international standards in Paris.



Metrologist calibrating weight on Mass Comparator at the Metrology Laboratory

Effectively from 11th December 2006 four metrology fields have been accredited by the South African National Accreditation System (SANAS). The fields are mass, small volume, temperature and time and frequency. With this accreditation, the laboratory became the 33rd laboratory in the list of accredited laboratories in the world and fourth only to South Africa, Egypt and Kenya in Africa.

Training

The Quality Control Section at TBS organizes in plant and group training courses on implementation of ISO 9001 – *Quality management systems*, ISO 14001- *Environmental management systems*, ISO 22000 - *Hazard Analysis and Critical Control Point (HACCP) – Food safety*, and ISO 17025 – *Testing and calibration*. Tailor made courses on quality management are also organized according to customers' needs. These courses target industrial personnel covering shop floor workers, supervisors, managers and chief executives

Information Dissemination

TBS has a well-equipped library to cater for standards and standards related information needs of industrialists, researchers, academicians, traders and consumers

The library maintains and updates a full set of Tanzania standards, international standards, like ISO, IEC and WHO/FAO Codex Alimentarius standards, foreign standards issued by other countries all over the world, laws

and regulations, standards catalogues, journals, news bulletins and other publications related to standardization and quality assurance.



TBS staff glance through various informative documents available at TBS Library

The standards sales section of the library receives enquiries and orders for copies of Tanzania standards, foreign and international standards.

National Enquiry Point (NEP)

Tanzania Bureau of Standards is the National Enquiry Point for WTO-TBT agreements in Tanzania. NEP handles information on technical regulations and standards adopted or proposed to be adopted and conformity assessment procedures adopted or proposed to be adopted.

The Announcer

The Bureau issues a biannual bulletin titled ‘The Announcer’ that gives details of standards published by TBS, International Organization for Standardization (ISO), Codex Alimentarius Commission (CAC) and other national standards bodies abroad.

Media programmes

TBS runs a radio programme known as “VIWANGO” and spots advertisements through both print and electronic media aiming at educating the general public on the benefits of standardization and quality assurance in order to build a quality culture among Tanzanians.

Packaging Technology Centre (PTC)

The Packaging Technology Centre (PTC) was established to offer the following services:

- training of industrialists in packaging technology;
- certification of packages;
- provide testing facilities;

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- computerized data base on packaging (PACKDATA) which is linked to the International Trade Center in Geneva supplying worldwide packaging information to exporters.

The centre is already furnished with necessary equipment to enable it to implement its objectives, including supporting a coordinated development of the packaging industry by strengthening the existing standardization and testing capability in the area of packaging, offering training on structural and graphic design of packages, provision of third party certification for packaging materials and packages produced according to acceptable standards; and provision of testing services for packages and packaging materials.

Technical Assistance to Importers and Exporters (TAIE)

TAIE is a service which provides exporters and importers with essential information, and advice on foreign technical requirements, such as standards, regulations, codes of practice and testing and approval procedures in foreign markets. TAIE does this through a variety of services and publications including technical enquiry, library, preshipment inspection, and technical research and consultancy.

National and International involvement

TBS is a member of the International Organization for Standardization (ISO) and represents Tanzania in all international standards work. With the current global trade, Tanzania's active participation in international standards work is crucial. TBS is also a member of the East African Standards Committee and South African Development Community Committee of Experts for Standards, Quality Assurance, Accreditation and Metrology. TBS is also a participating member to the FAO/WHO Codex Alimentarius Commission which is there to ensure that world wide food standards are available for protecting the health of consumers and ensuring fair practices in food trade. This has been done to ensure that Tanzania is fully represented in all technical issues concerning standards and quality.

TBS is at your service. It is there to contribute effectively to Tanzania's development.

**WHOEVER YOU ARE, WHEREVER YOU MAY BE,
WHATSOEVER YOU DO, THINK OF QUALITY, THINK OF TBS**