

Viwang

E-Newsletter



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TBS, The Home of Standards



Minister for Industry and Trade Hon. Judith Kapinga (second right) in one of the TBS laboratories during a familiarization visit. On her right is the TBS Director General Dr. Ashura Katunzi.

Government Commends TBS for Quality Assurance Efforts, Urges Greater Pace in Service Delivery



Minister for Industry and Trade, Hon. Judith Kapinga (MP), addresses TBS Management (not in photo) during her familiarization tour at the TBS Headquarters in Dar es Salaam recently..

By Neema Mtemvu

The Government has expressed satisfaction with the Tanzania Bureau of Standards (TBS) for its continued efforts in safeguarding quality assurance, while urging the organization to accelerate its pace in service delivery.

The commendation was made recently by the Minister of Industry and Trade Honourable Judith Kapinga during her visit to TBS headquarters

where she met with the management team. "I congratulate the Director General Dr. Ashura Katunzi, the Management, and all members of staff. I also thank the Board of Directors for the good supervision they continue to provide in our organization," said Hon. Kapinga.

Alongside her praise, the Minister called on TBS to intensify the speed of implementation of its duties

with innovation and cooperation. She pledged full support to ensure citizens access quality and safe products, emphasizing the importance of ethics, accountability and digital systems in protecting the health and income of Tanzanians.

Minister Kapinga further directed TBS to establish standards education programs for the public and strengthen collaboration with the Fair Competition Commission (FCC) to ensure effective quality control. She also urged timely completion of projects to improve services and efficiency, stressing the need for proper contractor supervision.

The Deputy Permanent Secretary in the Ministry of Industry and Trade Dr. Suleiman Serera echoed the call for professionalism and cooperation in executing the Bureau's mandate.

Representing the Chairman of the TBS Board of Directors, Mr. Hussein Sufian assured that the Board was ready to implement the directives to enhance service delivery and contribute to the goals of the Sixth Phase Government.

For her part, Dr. Ashura Katunzi, TBS Director General affirmed that the organization has received the Minister's directives and will continue to collaborate with institutions under the Ministry of Industry and Trade and other government ministries to ensure effective execution of its responsibilities. and officially commenced operations on April 14, 1976. In 1977, the Government amended the name and officially recognized it as the Tanzania Bureau of Standards through Act No. 1 of 1977.



Minister for Industry and Trade, Hon. Judith Kapinga (MP), receives a souvenir from the representative of the TBS Board of Directors, Mr. Hussein S. Ally, during her familiarization tour at the TBS Headquarters in Dar es Salaam.

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TBS, The Home of Standards



Minister for Industry and Trade Hon. Judith Kapinga (second right) in one of the TBS laboratories during a familiarization visit. On her right is the TBS Director General Dr. Ashura Katunzi.

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TBS Promotes Standards Awareness, Strengthens Institutional Relations Through SHIMMUTA Games

By Maryam Abdulaziz

The Tanzania Bureau of Standards (TBS) has emphasized that the Federation of Sports for Public Institutions, Organizations and Private Companies in Tanzania (SHIMMUTA) games provide a vital platform for strengthening inter institutional relationships while promoting standards related services to the public.

TBS Sports Chairperson Nyabuchwenza Magongo noted that sports, like any other sector require adherence to clear rules and quality benchmarks.

"TBS is leveraging the games to build stronger networks with other public and private entities, fostering collaboration that can enhance national quality systems," she said in Morogoro as the SHIMMUTA 2025 season kicked off.

She added that the event offers a unique opportunity to raise public awareness about the importance of standards in everyday life, reinforcing TBS's role beyond regulatory enforcement. This dual purpose of relationship building and public education positions SHIMMUTA as a valuable avenue for advancing the Bureau's mandate in a socially engaging and accessible environment.

Magongo further stressed that one of the TBS roles is to "oversee

standards" wherever they are, underscoring the institution's commitment to promoting a culture of compliance beyond traditional industrial and commercial settings.

"The reference to both national and international standards highlights our intention to align local practices with global expectations, reinforcing professionalism, safety, and accountability even within the realm of sports," she noted.

This perspective frames SHIMMUTA not merely as a sporting event, but as a platform for advancing standards awareness and institutional credibility. Magongo confirmed that this year TBS participated in eight sports, including football, men's and women's netball, tug of war, traditional games, and indoor games.

For his part, TBS Sports Secretary Hassan Amiri, explained that preparations for the tournament have been underway for an extended period to ensure players are in strong physical and mental condition.

"Through these games, we are able to promote TBS," he said, emphasizing that such events foster meaningful relationships, bring diverse organizations together, and enhance public understanding of the Bureau's mandate and services.



Launch of energy efficiency laboratories: Advancing Tanzania's clean energy agenda and Vision 2025

The launch of the National Energy Efficiency Testing Laboratories marks a significant national milestone in Tanzania's pursuit of sustainable development under the Clean Energy Agenda and the aspirations of Tanzania Development Vision 2025. By strengthening the enforcement of Minimum Energy Performance Standards (MEPS), the initiative reinforces the Government's commitment to efficient energy use, industrial competitiveness, and environmental stewardship.

Established at the Tanzania Bureau of Standards (TBS) headquarters in Ubungu, Dar es Salaam, the modern laboratories represent a practical and timely intervention to support the country's transition toward a

more energy-efficient economy. As Tanzania continues to expand electricity generation and access, improving efficiency at the point of consumption remains critical to ensuring affordability, reliability, and sustainability of energy services.

The laboratories were officially inaugurated on 16 October 2025 by the Deputy Permanent Secretary in the Ministry of Energy, Dr. James Peter Mataragio, who described the launch as a proud moment for the nation and a critical step in advancing smarter energy use. He emphasized that appliances used in homes, offices and industries must contribute to efficient energy consumption, noting that the initiative directly



supports the Government's broader objective of expanding access to modern, reliable and affordable energy services for all Tanzanians.

The state-of-the-art facilities are mandated to test commonly used electrical appliances, including refrigerators, air conditioners, televisions and electric motors, to ensure compliance with national efficiency and safety requirements before entering the market. Through strengthened pre-market verification, the laboratories will help eliminate substandard and energy-wasting products, thereby safeguarding consumers and promoting responsible production and consumption.

Beginning in 2026, the laboratories will underpin the mandatory application of official energy-efficiency labels on electrical appliances sold in Tanzania. These labels will provide consumers with transparent and comparable information on electricity consumption, empowering households and institutions to make informed purchasing decisions. This intervention aligns directly with SDG 12 (Responsible Consumption and Production) and SDG 7 (Affordable and Clean Energy).

The establishment of the laboratories was made possible through an investment of approximately TZS 6.5 billion (about EUR 2.3 million) from the European Union, implemented in partnership with the United Nations Development Programme (UNDP) and the Ministry of Energy. This collaboration reflects strong international confidence in Tanzania's policy direction and its commitment to climate-resilient and standards-based development, in line with SDG 13 (Climate Action).

Speaking at the launch, TBS Director General Dr. Ashura Katunzi underscored the strategic importance of the new facilities for national capacity building. She noted that the laboratories enable Tanzania to verify appliance performance locally rather than relying on foreign testing facilities, strengthening consumer protection, enhancing confidence among local manufacturers, and supporting fair competition in the domestic market. This capability contributes directly to Vision 2025's objective of building a competitive, semi-industrialized economy.

Beyond regulatory compliance, the benefits of the laboratories are expected to be far-reaching. Increased adoption of energy-efficient appliances will lower household electricity bills, reduce pressure on the national power grid, curb greenhouse gas emissions, and support sustainable urban and industrial development. These outcomes reinforce Tanzania's clean energy agenda while delivering tangible socio-economic benefits to citizens.

Tanzania deserves commendation for achieving this important milestone, which positions the country among leading African nations integrating standards, energy efficiency and climate considerations into national development planning. The Government's continued support for MEPS, public awareness campaigns and institutional capacity building demonstrates a forward-looking approach to development, offering a clear pathway toward a cleaner, more efficient and more resilient energy future in line with Vision 2025 and the Sustainable Development Goals.

“When you buy a product always look for the TBS mark which assures you of quality, reliability and safety”

Tanzania Launches Energy-efficiency Laboratories as Government Pushes for Smarter Appliance Use



Deputy Permanent Secretary of the Ministry of Energy, Dr. James Peter Mataragio (left of the sign-board), and UNDP and EU representatives (right) jointly launch state-of-the-art energy efficiency testing laboratories and introduce Minimum Energy Performance Standards (MEPS) at the TBS Head Office in Dar es Salaam. Looking on, from left, are the TBS Director General, Dr. Ashura Katunzi, and the Director of Trade Development from the Ministry of Industry and Trade, Mr. Sempeho Manongi.

By Deborah Haule

Tanzania has taken a significant step toward reducing electricity costs and improving the quality of household appliances with the launch of state-of-the-art

energy-efficiency testing laboratories and the introduction of Minimum Energy Performance Standards (MEPS).

The new facilities, located

at the Tanzania Bureau of Standards (TBS) headquarters at Ubungu, will test widely used appliances such as refrigerators, air conditioners, televisions, and electric motors

to ensure they meet required efficiency and safety standards before reaching consumers. Officiating the event recently, Deputy Permanent Secretary of the Ministry of Energy Dr. James Peter Mataragio, described the launch as a proud milestone for the nation.

“These laboratories mark a major milestone in our journey toward energy efficiency. Every appliance used in our homes, offices, and industries must contribute to smarter energy use,” he said, noting that the initiative supports the Government’s broader goal of expanding access to modern, affordable energy services.

The project, supported through a partnership between TBS, the

United Nations Development Programme (UNDP) and the European Union, is expected to curb the influx of substandard appliances while helping consumers save on electricity bills.

For her part TBS Director General Dr. Ashura Katunzi emphasized that the new laboratories give Tanzania the capacity to verify appliance performance locally rather than relying on foreign testing.

“This work strengthens consumer protection, boosts the confidence of local manufacturers, and helps eliminate energy wasting products from our markets,” she noted.

The system will also introduce official energy labels, providing shoppers with clear information about electricity consumption, in line with international best practices. Stakeholders from government, industry, and development partners attended the launch, expressing optimism that the new standards will ease pressure on the national grid, reduce carbon emissions, and promote fair competition in the appliance market.

TBS further announced that public awareness campaigns will continue in the coming months to help manufacturers, importers, and consumers understand and comply with the new requirements.

“For safety and higher efficiency, always buy TBS-marked/ certified electrical appliances”

African Standards Day Celebrations Kick Off in Tanzania with University Essay Competition



TBS Director General, Dr. Ashura Katunzi (right), launches the 13th National Essay Writing Competition for the 2025–2026 period, accompanied by Organizing Committee Chairperson Mr. Nickson Ndoi.

By Neema Mtemvu

The Tanzania Bureau of Standards (TBS) has officially announced the launch of the 2025/2026 African Standards Day celebrations, reaffirming its commitment to developing standards and overseeing the quality of products

across various sectors, including industrial goods. Alongside the celebrations, TBS introduced an essay writing competition for university students, with winners set to represent Tanzania at the continental level.

The announcement was made recently in Dar es Salaam during a press conference led by the TBS Director General Dr. Ashura Katunzi. She emphasized that the celebrations honour the collaborative efforts of



thousands of African experts who develop voluntary and mandatory technical agreements published as regional standards.

Dr. Katunzi noted that Tanzania's participation at the African level will expand opportunities for local products to gain wider acceptance across the continent.

She added that the goal is to achieve sustainable economic and social development while building an industrial economy

that contributes significantly to national income through products manufactured and sold both domestically and abroad.

Dr. Katunzi stressed that product quality requires adherence to specific standards to safeguard the environment, consumer health, safety, and community well-being.

She further highlighted that the essay competition encourages university students to engage in the standards agenda, with winners to be

officially announced during the peak of the African Standards Day celebrations.

"This year's African Standards Day, guided by the theme 'The Role of Harmonised Standards in Reducing Technical Barriers to Trade and in Promoting Fair and Just Trade within the Intra African and Global Trade,' underscores Tanzania's commitment to strengthening product quality and expanding opportunities for local industries across the continent."

***“TBS mark of quality:
An assurance that you
are buying a quality
product”***

TBS Conducts Training to Electrical Equipment Stakeholders



Director of Standards Development, Mr. David Ndibalema (centre, seated), representing the TBS Director General, joins members of the TBS Management and training participants for a group photo during the training at the TBS Headquarters.

By Gloria Mgomber

The Tanzania Bureau of Standards (TBS) has conducted training for manufacturers and traders of electrical equipment aiming at ensuring that products entering the market meet

standards requirements, pass inspections, and safeguard consumer safety while promoting efficiency in economic activities. Representing the Director General at the session which brought together various

stakeholders, Director of Standards Development Mr. David Ndibalema said the training was designed to build a common understanding among manufacturers and importers regarding the standards



required for electrical products produced locally or imported. “We have specific standards for various electrical products. If someone imports sockets or wires, they must meet the relevant standard requirements. We provide procedures to ensure products from abroad are inspected and certified before entering the country,” he explained. Mr. Ndibalema cautioned that traders who import products that fail to meet standards risk losses, as such products are destroyed in accordance with

regulations and laws. He added that fines are also imposed on those who violate procedures. For her part, TBS Eastern Zone Manager Ms. Noor Meghji noted that the meeting provided traders with clarity on inspection processes and the steps required to ensure compliance. “We identified challenges and offered guidance on what needs to be done to improve the quality of electrical products entering the market,” she said. On behalf of local manufacturers, Engineer Gilbert Mauto, said the training

was timely and would help producers meet both market demands and TBS standards. Ms. Neema Kiboha, a distributor from Kariakoo praised the education provided noting that it will help traders make informed decisions and prevent the importation of substandard products. “I promise to pass this education on to my customers and fellow traders to ensure we protect our market against unsuitable products,” she said.

“The bitterness of poor quality remains long after low price is forgotten! Always use TBS-certified products.”

TBS Recognised as Best Regulatory Agency 2025



TBS Director General, Dr. Ashura Katunzi, proudly displays the Best Regulatory Agency 2025 Award—a prestigious national honour recognizing excellence, innovation, and commitment to quality.

By Neema Mtemvu

The Tanzania Bureau of Standards (TBS) has been recognised as the Best Regulatory Agency in 2025 at the Public Sector Innovation Awards, underscoring its outstanding contribution to serving the community.

The awards ceremony which brought together more than 40 public institutions, was organised under the Public Sector Innovation Awards framework and involved

citizen participation in selecting institutions that have made notable societal impacts.

This accolade marks the second major recognition for TBS in recent years, following its 2023 award as the Best Regulatory Authority in Africa, highlighting the Bureau's consistent excellence and commitment to public service.

Speaking after receiving the award, TBS Director

General Dr. Ashura Katunzi said the recognition holds great significance for the institution.

“Our institution is an engine of the national economy, particularly in the industrial and trade sectors, with the responsibility of ensuring the quality and safety of manufactured products so they remain competitive, while at the same time protecting Tanzanians to ensure they receive what is best,” she said.

Dr. Katunzi expressed gratitude to the President of the United Republic of Tanzania Dr. Samia Suluhu Hassan for the confidence demonstrated in the institution through substantial investments, which have empowered TBS to execute its core responsibilities effectively. She also acknowledged the Treasury Registrar’s Office, the Ministry of Industry and Trade, and the TBS Board of Directors for their continued oversight and strategic guidance.

Highlighting the significance of the recognition, she noted that the award represents national

acknowledgment of TBS’s performance, reinforcing its reputation for excellence. She emphasized that this is not the first time TBS has been recognised, reflecting a sustained record of achievement and contribution to society.

For instance, in 2023, TBS was awarded Best Regulatory Authority of the Year in Africa, and its current national recognition represents another milestone in its trajectory of success.

Dr. Katunzi added that TBS is internationally recognised in metrology and calibration, with inspectors and inspection systems accredited to international standards.

“TBS is the home of standards, and the work we do is carried out according to international standards. This is a great source of pride for us. And we continue to assure Tanzanians that we will keep serving them with the professionalism they expect, enabling them to conduct productive business and to use quality products certified by TBS,” she concluded.



TBS Director General, Dr. Ashura Katunzi (centre), poses with members of the TBS management during the recent Public Sector Innovation Awards ceremony.

Deputy Minister Urges Stronger Action Against Sub-standard Products



Deputy Minister for Industry and Trade, Hon. Patrobas Katambi (MP), addresses TBS Management (not in photo) during his familiarization tour at the TBS Headquarters in Dar es Salaam recently.

By Gloria Mgomberi

The Deputy Minister for Industry and Trade, Hon. Patrobas Katambi has called on citizens and relevant authorities to close loopholes that allow non-standard products to enter the country

through informal channels. Speaking during his visit to the Tanzania Bureau of Standards (TBS) Headquarters in December 2025, Hon. Katambi encouraged Tanzanians to

continue using the services offered by the Bureau. He warned traders against evading taxes or importing substandard goods noting that such practices not only cause losses to the government but

also endanger public health, including risks of serious diseases such as cancer.

Hon. Katambi emphasized that TBS is ready to serve traders by receiving product samples and assessing them to verify quality, a process that gives products legitimacy and a longer lifespan in the market. He further urged the public to work closely with security agencies and TBS by providing information to ensure all products entering the country are properly inspected according to standards.

On issues of measurement and energy, the Deputy Minister highlighted the importance of ensuring the quality of electrical equipment, including the use of approved standard lighting products, in line with national efforts to promote efficient energy use.

For her part, TBS Director General, Dr. Ashura Katunzi explained that national standards developed by TBS are prepared through the involvement of stakeholders from all sectors. She noted that TBS operates eight

internationally accredited laboratories, and its experts also support assessments and inspections in other Southern African Development Community (SADC) countries.

Dr. Katunzi added that TBS has been actively involved in major strategic projects such as the Standard Gauge Railway (SGR), the Julius Nyerere Hydropower Project, and various flyover projects, ensuring that all materials used meet required quality standards.



Deputy Minister for Industry and Trade, Hon. Patrobas Katambi (MP) (second right), in one of the TBS laboratories during a familiarization visit. On his left is the TBS Board of Directors Chairperson, Prof. Othman C. Othman.

TBS Strengthens Compliance Awareness Among Rice Producers in Tabora



TBS officers interact with rice producers during an awareness session in Tabora Region.

By Deborah Haule

The Tanzania Bureau of Standards (TBS) has conducted an awareness and sensitization campaign targeting rice traders and owners of rice milling factories in Nzega, Igunga, and Tabora districts within Tabora Region.

The initiative aimed to educate stakeholders on the procedures and benefits of obtaining the TBS Quality Mark through the Western Zone office, thereby enhancing their visibility and competitiveness

both nationally and internationally.

The sessions were led by Acting Western Zone Manager Hamis Seleleko, who emphasized that the outreach forms part of TBS's broader efforts to engage producers at the community level and guide them on essential requirements for quality and compliance.

Seleleko explained that the campaign seeks to ensure rice producers understand the



standards governing food products, the importance of proper packaging and labeling, and the legal obligations associated with the Quality Mark. He noted that many small-scale processors operate without adequate information, and such sensitization provides them with a clear pathway toward compliance.

“The Quality Mark opens opportunities for traders to participate fully in the East African Common Market by enhancing consumer trust in their products,” Seleleko stated. He further stressed that the mark is a legal requirement for food and cosmetic products, urging producers to ensure their goods bear the mark and encouraging consumers to always check for it before making purchases.

He added that obtaining the mark not only protects consumers but also strengthens local business operations, enabling traders to access wider markets, increase sales, and contribute to government

revenue and community development.

Participants were also guided on how to apply for certification through the TBS online system, the documentation required, and the support available for small and medium scale producers.

Rice traders and milling machine owners in Igunga expressed appreciation for the campaign, noting that the Quality Mark increases their chances of penetrating international markets and boosts customer confidence in their products. They highlighted that the sessions clarified several issues they previously misunderstood, particularly those related to packaging, labeling, and product quality.

They further encouraged TBS to continue conducting such sensitization activities regularly, as they play a vital role in strengthening the rice value chain and supporting government efforts to empower local producers.

***“Quality is remembered
long after the price is
forgotten. Always use
TBS-certified products”***

International Lead Poisoning Prevention Week (ILPPW): Protecting health, safeguarding the future in Tanzania



Miraji Kambwangwa

Every last week of October each year, the world observes International Lead Poisoning Prevention Week (ILPPW), a global initiative aimed at raising awareness about the dangers of lead exposure and promoting strategies to prevent lead poisoning.

The International Lead Poisoning Prevention Week (ILPPW) aims to raise awareness of the health impacts of lead exposure, highlight national and partner efforts to prevent childhood lead poisoning, and encourage further action to

eliminate lead paint through country-level regulations.

Coordinated by the World Health Organization (WHO) and partner organizations, ILPPW mobilizes countries, institutions, and communities to strengthen policies and initiatives that prevent lead poisoning. The campaign emphasizes protecting children, who are most vulnerable, and promotes practical measures to eliminate lead from homes, schools, workplaces, and other environments.

At the national level, Tanzania marked the week in Dodoma this year. The campaign aligns with ongoing national efforts led by the Tanzania Bureau of Standards (TBS), in collaboration with other stakeholders, to eliminate sources of lead exposure and protect public health.

Lead poisoning is a global public health concern due to the metal's high toxicity. Historically, lead was widely used in paints, gasoline,

pipes, ceramics, cosmetics, and toys. Although many countries have made significant progress in limiting its use through standards and regulations, exposure to lead continues to pose serious health risks.

Health impacts of lead exposure

Lead affects nearly every system in the human body. Even small amounts can cause serious and permanent health damage, including reduced IQ and learning difficulties, behavioral problems and attention disorders, developmental delays in children, anemia and weakness, kidney damage, and cardiovascular complications in adults. According to the WHO, there is no safe level of lead exposure, and children absorb lead faster and suffer more severe consequences than adults.

Despite global progress, numerous sources of lead exposure continue to threaten public health. These include

lead-based paints in homes, schools, and toys; contaminated soil from past use of leaded gasoline and deteriorating leaded paints; informal smelting and industrial activities linked to improper recycling of lead-acid batteries; and cosmetics containing lead compounds.

These risks highlight the importance of continuous monitoring, public education, and enforcement of safety standards.

Efforts to eliminate lead paint in Tanzania

Tanzania has taken important steps to protect communities from lead exposure. Because of its hazardous properties, the country regulates the amount of lead allowed in paint. Through its national standards body, TBS, Tanzania continues to develop and enforce

regulations limiting lead content in products, particularly paints.

National efforts include establishing and enforcing national standards. TBS implements national mandatory (compulsory) standards with proper mechanisms, including inspection, market surveillance, and certification, for all paints manufactured, imported, exported, sold, and used within Tanzania. These standards limit the total lead content in all types of paint to less than 90 ppm.

In the product certification process, raw materials declared by manufacturers and product samples are analyzed in laboratories for conformity assessment before market authorization. Renewal licenses are issued based on compliance with routine factory assessments and market sample testing.

Conformity assessment for imported products, including paints, is conducted through the Pre-Export Verification of Conformity (PVoC) and Destination Inspection (DI) programmes. Market surveillance is also carried out to ensure manufacturers comply with safety requirements. Regulatory actions, such as seizure, disposal, and penalties, are applied to products that fail to meet the standards.

Tanzania also strengthens public awareness campaigns on the dangers of lead exposure, helping communities understand the risks and adopt preventive measures.

These initiatives demonstrate Tanzania's commitment to safeguarding public health and supporting global efforts to eliminate lead poisoning.



Group photo from International Lead Poisoning Prevention Week (ILPPW) 2025 held in Dodoma

Conclusion

Tanzania's participation in International Lead Poisoning Prevention Week underscores the importance of preventing lead exposure to protect the health and well-being of its people, particularly children. TBS plays a central role by coordinating standards development, enforcing compliance, conducting market surveillance, and raising public awareness to ensure products are safe and free from harmful levels of lead.

Continued cooperation among government institutions, manufacturers, health professionals, and the public is essential. With strong regulations and increased awareness, Tanzania can greatly reduce lead exposure and its long-term effects. These efforts move the country closer to a safer, healthier, and lead-free future for all.

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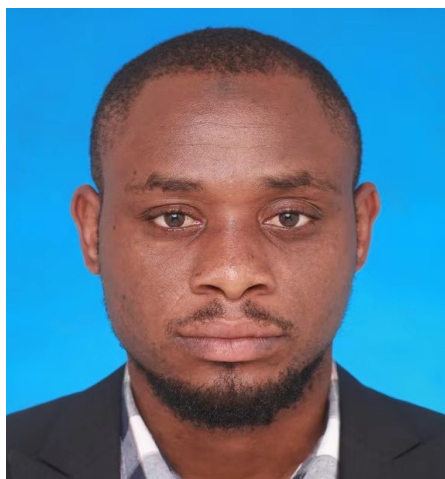
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* **Mr. Miraji Kambwangwa is a Standards Officer in the Chemical Section.**

“Misuse of TBS quality mark is a criminal offence punishable under the Standards Act No. 2 of 2009”

Supporting Tanzania's clean energy agenda through CNG station standards



Eng. Mohamedi Kaila

Tanzania's southern regions of Mtwara and Lindi have emerged as important hubs for the country's growing natural gas industry, following the discovery of substantial onshore and offshore reserves. To harness these resources, the government has invested in key infrastructure, including the construction of a major natural gas processing plant at Madimba.

From there, processed gas is transported via a pipeline network to Dar es Salaam, where it supports

electricity generation, industrial development, and broader national energy goals. This rapidly expanding sector is positioning natural gas as a central driver of Tanzania's economic growth and energy security



The Madimba gas processing plant in Mtwara (Courtesy: TPDC)

As part of efforts to promote cleaner and more sustainable energy, the use of Compressed Natural Gas (CNG) has been significantly expanded. CNG is now widely adopted not only as an alternative fuel for electricity generation but also as a dependable

energy source for urban rapid transit vehicles. This shift towards CNG has encouraged a substantial increase in the need for accessible and efficient refueling infrastructure across the country.



Urban rapid transit buses (Courtesy: DART)

To meet growing demand, numerous CNG filling stations have started to be constructed across the country, including modern, strategically located facilities such as the TPDC Mlimani Filling Station. These stations are designed to offer safe, convenient, and reliable fueling services for both public transport fleets and private users. This nationwide expansion is essential for promoting wider adoption of CNG and advancing sustainable urban mobility.

To ensure that this infrastructure operates safely and efficiently, the Tanzania Bureau of Standards (TBS) introduced

a National Standard, TZS 2347-ISO 16923:2022, Natural gas fueling station. The standard sets comprehensive requirements for the design, construction, operation, and maintenance of CNG refueling stations, covering station layout, equipment, pressure regulation, compression systems, dispensers, safety systems, operational procedures, and regulatory compliance. It applies to all public and private stations, reinforcing TBS's strategic role in advancing sustainable energy adoption.

The implementation of TZS 2347-ISO 16923:2022 has established a strong framework

that ensures CNG fueling stations operate safely, efficiently, and sustainably. By setting clear technical and operational standards, it mitigates risks associated with high-pressure gas storage, improves station reliability, enhances environmental performance, and builds customer confidence. Beyond safety and efficiency, the standard provides a common benchmark for regulators, investors, and industry stakeholders, supporting consistent practices, facilitating infrastructure expansion, and enhancing broader adoption of CNG as a cleaner, dependable energy source across Tanzania.



CNG filling station in operation (Courtesy: TPDC)



The standard delivers multiple key benefits:

Enhanced Safety:

The standard provides comprehensive measures to mitigate fire, explosion, and leak risks associated with storing CNG at pressures of up to 250 bar. It also emphasizes structured hazard identification and risk-assessment procedures, allowing operators to anticipate and prevent potential failures before they occur.

Operational Efficiency and Reliability:

By setting clear requirements for compressor performance, fuel quality, storage system integrity, and dispenser accuracy, the standard ensures consistent station uptime and reduced maintenance costs. Strict fuel-quality parameters also protect modern engines and support optimal combustion, resulting in more efficient and dependable refueling operations.

Regulatory Compliance and Industry Harmonization:

The standard serves as a common reference point for both domestic and international stakeholders, streamlining permitting and inspection processes, harmonizing engineering practices, and facilitating cross-border trade and investment. Stations built across different regions

follow consistent principles, contributing to a unified global natural gas infrastructure.

Environmental Sustainability:

CNG is recognized as a cleaner alternative to conventional petroleum fuels, producing lower greenhouse gas emissions and reduced particulate matter, NOx, and SOx levels. The standard minimizes fugitive methane emissions through proper design and leak management, promotes energy-efficient compression and storage, and supports safe expansion of CNG infrastructure, thus accelerating the transition to cleaner fuels.

Building Customer Confidence:

By ensuring stations are constructed and operated to internationally recognized safety and performance standards, the standard builds public trust, ensures consistent fueling experiences, and encourages vehicle manufacturers to expand natural gas vehicle options. This lays the foundation for responsible, scalable CNG market growth.

Facilitating Investment and Infrastructure Expansion:

The standard provides a clear, internationally recognized benchmark for investors, insurers, and regulators to assess new CNG projects.

By reducing project risks, enhancing investor confidence, and lowering insurance liabilities, the standard accelerates infrastructure development and expands access to CNG as a reliable fuel option.

In conclusion, the development of Tanzania's natural gas sector, particularly in Mtwara and Lindi, has become a cornerstone of the nation's economic growth, energy security, and transition toward cleaner energy. Strategic investments in processing facilities, pipelines, and CNG infrastructure, supported by the nationwide implementation of TZS 2347-ISO 16923:2022, have ensured that safety, efficiency, and environmental sustainability remain central to this expansion. By standardizing the design and operation of CNG fueling stations, Tanzania is not only promoting public confidence and operational reliability but also attracting investment and facilitating the broader adoption of natural gas as a sustainable urban mobility solution. Collectively, these efforts position Tanzania as a model for responsible, scalable, and environmentally conscious energy development, reinforcing the country's commitment to a cleaner, more resilient energy future.

*** Eng. Mohamedi Kaila is a Standards Officer in the Mechanical Engineering Section.**



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