

Viwang

E-Newsletter



ISSUE NO: 034 JANUARY - MARCH 2025

TBS, The Home of Standards



Viwango House under construction at Njedengwa, Dodoma

TBS board urges timely completion of Viwango House in Dodoma



Chairman of the TBS Board of Directors, Prof. Othman Chande Othman (left), receives briefing on the construction of the Viwango House at Njedengwa, Dodoma, during a site visit by Board members.

By Neema Mtemvu

The Board of Directors of the Tanzania Bureau of Standards (TBS) has instructed the contractor building the organisation's new headquarters, "Viwango House," in Dodoma to ensure the project is completed on time.

These directives were issued recently by the Chairman of the TBS board of directors, Prof. Othman Chande Othman, during a site visit by board members to inspect the project's progress. Prof. Othman stated that the

construction is progressing well, having reached 72 percent completion.

According to Prof. Othman, once the building is completed, laboratory operations will commence in Dodoma.

He pointed out that the primary challenge faced earlier was sourcing specialised equipment, as the project involves constructing laboratories requiring modern, high-tech

instruments, all of which are imported.

“Our work involves laboratory operations, which require specialised equipment that we import from abroad. The procurement process has already begun, and we are awaiting their arrival for installation to complete the laboratories,” Prof. Othman said, adding: “Contractors should ensure this project is completed on time to bring services closer to stakeholders in the Central Zone and neighbouring regions.”

The project manager Engineer Dr. Johnson Malisa,

stated that preliminary works are over 90 percent complete, with only finishing touches remaining.

Engineer Malisa added that TBS has already addressed all previous challenges, and since the equipment's have been ordered, they expect increased workforce efforts to complete the project on time.

The completion of this building will be highly beneficial, as it will bring services closer to stakeholders in the central zone and surrounding regions

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



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Viwango House under construction at Njedengwa, Dodoma

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TBS: Product certification key to sustainable business and investments

By Rhoda Mayugu

The Tanzania Bureau of Standards (TBS) has urged entrepreneurs from the Coast Region to certify their products as a vital step for fostering sustainable business and investment, which are key drivers of economic growth.

The TBS Eastern Zone Manager, Ms Noor Meghji, said sustainable business and investment promote long-term stability, job creation and innovation.

"Product certification strengthens the economy by ensuring businesses produce quality, safe, and reliable goods, building consumer trust and confidence," stated Ms Meghji during the recent Industrial and Investment Exhibition in Kibaha, Coast Region.

She noted, product certification enhances market access, both locally and internationally, enabling businesses to expand their customer base and attract investment.

She said certified products often comply with national standards, making them more competitive in markets and helping businesses secure long term growth.

"By adhering to standards, businesses mitigate risks, improve operational efficiency, and build strong reputations, all of which are crucial for sustainable investments and a thriving economy," she added.

She said by complying to standards businesses are able to align with industry best practices, ensuring

compliance with safety, quality, and environmental regulations. According to her, this not only mitigates risks such as legal issues or product recalls but also enhances operational efficiency by streamlining processes and reducing waste.

A strong commitment to certification helps businesses build a trustworthy brand reputation, which attracts customers, investors and partners, ultimately fostering sustainable investments.

Ms. Meghji said that TBS offers free certification services to entrepreneurs recognized by the Small Industries Development Organization (SIDO).

"SIDO is the key institution for small-scale producers. Once introduced by SIDO, certification is free, so there's no excuse for taking uncertified products to the market," Meghji said.

Moreover, she said TBS has the mandate to promote standards, certifying products and systems, facilitating product testing and conducting inspections in areas involved in the sale and distribution of products.

Further, she said TBS oversees the quality and safety of imported products by inspecting goods before they enter the country.

She noted that TBS also provides laboratory services, with the bureau operating twelve laboratories dedicated to testing various products.



President Samia's drive for quality a testament to visionary leadership

In a time when nations are striving to balance economic growth with social welfare and quality assurance, Tanzania stands as a shining example under the leadership of Her Excellency President Samia Suluhu Hassan. During the four-year period of President Samia, Tanzania Bureau of Standards has made various achievements in implementing its statutory obligation, i.e. undertaking measures for quality control of products and promoting standardization in industry and commerce.

The financial year 2024/2025 is an example of the Bureau's remarkable achievements aligned to national strategic goals. One such achievement is bringing services closer to the people. In line with President Samia's commitment to bringing Government services closer to the people and lowering the cost of access, TBS has embarked

on a massive expansion of laboratory infrastructure. Under the President's guidance and leadership, strategic regions such as Dodoma and Mwanza are now home to new laboratories that will serve the central and northern zones of the country, ensuring that citizens no longer have to travel long distances for quality assurance services.

Furthermore, in Arusha, preparations are underway for the construction of a new test house. These efforts directly support citizens and businesses alike, improving turnaround time for services and enhancing public trust. A massive allocation of TZS 2.7 billion underscores the commitment to strengthening regional and border offices—an initiative that not only enhances inspection capacities but ensures Tanzanians are protected from substandard products while fostering a safer, more reliable market environment.

Another achievement is enhanced trade facilitation including empowerment of small and medium-scale entrepreneurs. President Samia's inclusive economic philosophy has placed special emphasis on empowering entrepreneurs and enabling trade. Under her guidance, TBS has developed an impressive 1,823 new standards across key sectors, paving the way for producers to access both local and international markets with confidence.

With more than 2,400 quality certificates issued—over 1,000 of them to small-scale entrepreneurs—the Government has reaffirmed its dedication to uplifting local businesses. Notably, more than TZS 350 million is allocated annually to support these entrepreneurs at no cost, removing barriers and unlocking potential across the country.

Equally commendable is the registration of over 31,500 food and cosmetics premises, thus reinforcing national efforts to safeguard public health and consumer safety. Through TBS, the country also inspects thousands of cargo shipments and imported used motor vehicles each year, curbing low-quality goods at the border and upholding Tanzania's reputation in regional and international markets.

Another shining outcome of President Samia's leadership is the prioritization of public education and awareness on standardization and conformity assessment. With over 5,000 stakeholders trained in standards and quality assurance, and outreach conducted through radio, television, social media, seminars, and district campaigns, knowledge is now more accessible than ever and the public is not only more informed but more engaged.

Laboratory accreditation is yet another area which has improved during the four years of President Samia. Under President Samia's administration, all 12 TBS laboratories have received international accreditation—an achievement that cements Tanzania's reputation

as a leader in quality assurance. These laboratories have tested over 118,000 product samples and calibrated nearly 37,000 equipment units, making tangible contributions to product safety and market competitiveness. For the financial year 2024/2025, a further TZS 3.18 billion has been allocated for the procurement of cutting-edge laboratory equipment, reflecting a strong commitment to scientific advancement and reliability. Simultaneously, the deployment of user-friendly electronic systems ensures that TBS services are accessible to Tanzanians everywhere—another leap forward enabled by the President's digital-first approach to governance.

In 2023, TBS was honored with the African Regulator of the Year Award—an accolade that directly reflects President Samia's commitment to excellence and integrity in public institutions. Moreover, TBS has become the first institution in the Southern African Development Community (SADC) to secure certification under ISO 22003-1:2022, Food safety — Part 1: Requirements for bodies providing audit and certification of food safety management systems. Adding to this list, the Bureau became the second institution to obtain international accreditation for product certification systems under SADCAS, further enhancing Tanzania's standing on the global stage.

In a nutshell, the Bureau's accomplishments are a mirror of the greater national transformation being driven by H.E. Dr. Samia Suluhu Hassan. Her commitment to inclusive growth, quality assurance, and international competitiveness is steadily building a resilient, self-sustaining economy.

As the nation continues on its path to industrialization and economic empowerment, the results speak for themselves. From strengthening border inspection to supporting grassroots entrepreneurs, from digital innovation to global certifications—President Samia's leadership remains the cornerstone of Tanzania's ongoing success story.

Product standards crucial for economic growth



TBS Marketing Officer Ms. Maryam Abdulaziz provides education to entrepreneurs during the 11th National Trade Exhibition held in Dimani, Zanzibar.

By Staff reporter

Tanzania Bureau of Standards (TBS) has emphasized that meeting product standards is vital for enhancing manufacturers' contribution to the economy by ensuring quality, safety and competitiveness in both local and global markets.

The TBS Marketing Officer, Maryam Abdulaziz,

stated that by adhering to standards, manufacturers can overcome trade barriers both locally and internationally.

"When products meet recognised standards, manufacturers can expand their market reach, reduce trade barriers, and increase consumer trust," she said during the 11th National

Trade Exhibition held in Dimani, Zanzibar, from January 1st to 15th this year.

She stressed the importance for manufacturers to ensure their products carry the TBS quality mark, which helps eliminate trade barriers.

Ms Maryam explained that any product bearing the Zanzibar



Bureau of Standards (ZBS) quality mark would face no trade obstacles when sold in mainland Tanzania, as its quality would be guaranteed.

Additionally, she explained that products certified by TBS will face no trade barriers when sold in Zanzibar, thanks to a Memorandum of Understanding (MOU) between TBS and the Zanzibar Bureau of Standards (ZBS), fostering collaboration.

This ensures such products are recognized as safe and of high quality for consumers.

She urged manufacturers to ensure their products are quality-certified and bear the TBS Standards Mark, which guarantees market access.

Ms Maryam further clarified that TBS certified products are assured entry into the East African Community (EAC) market without barriers.

“Therefore, we encourage manufacturers who have not yet certified their products to come to

TBS, as doing so will guarantee market access both locally and internationally,” she stated.

She also encouraged entrepreneurs to take advantage of the free certification process, requiring only an introduction letter from the Small Industries Development Organization (SIDO).

“The Government recognises the contribution of entrepreneurs to the economy, which is why it covers all costs for product certification,” she added.

Maryam explained that entrepreneurs need only the introduction letter to begin the certification process, which starts immediately after submission.

In addition, she took the opportunity to educate the public at the exhibition on the importance of product standards in their daily lives, emphasizing their role in ensuring consumer health and safety.

She urged the public to become ambassadors for quality

products, avoid expired items, and develop the habit of checking product packaging for expiry dates and TBS certification.

If they encounter uncertified or expired products, she encouraged them to report them to the nearest TBS office or contact the TBS customer service center.

Regarding TBS’s participation in the exhibition, Ms Maryam explained that the goal was to educate the public on the significance of standards in everyday life.

“Our presence here has allowed us to educate participants, and they have promised to be good ambassadors, sharing this information with their families,” she said.

The attendees praised TBS for providing valuable education, which will help them make informed decisions when purchasing products.

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

TBS empowers students to uphold quality standards



TBS Northern Zone Manager, Eng. Joseph Ismail, addresses students at the Arusha Technical College (ATC) during an awareness session.

By Neema Mtemvu

Arusha Technical College (ATC) students have been urged to become ambassadors of standards within their communities, recognising their pivotal role as future experts in Tanzania.

The call was made by TBS Northern Zone Manager Eng.

Joseph Ismail recently during an awareness session aimed at educating students on the importance of standards.

Speaking during the session, Eng. Joseph Ismail, said the goal of the programme is to equip students with the knowledge and promote the

importance of standards in engineering work and daily life.

“Since students are future engineers in our country, TBS believes it’s important to give them the knowledge so that they can understand the importance of standards and how they apply the same to



engineering activities,” he said.

He added that products failing to meet required standards pose serious health risks and economic challenges to the country, highlighting the importance of educating future professionals on the need for quality assurance.

“This period is critical for TBS as it allows us to reinforce the importance of standards among university students and future professionals,” he said.

During the session, students were educated on the benefits of standards for products, including ensuring consumer health and safety, removing trade barriers, increasing market

confidence and enhancing access to international markets as standards serve as a “passport” for products to enter foreign markets.

Students also gained insights into the core responsibilities of TBS in setting, monitoring and enforcing standards across various sectors.

The students expressed their gratitude to TBS for the informative session and recommended that similar educational programmes be extended to more students in the future.

The session ended with the students committing to applying their newfound

knowledge to promote standards in their communities and professional work.

The session was held in preparation for the upcoming African Organization for Standardization (ARSO) Day, which was to take place. The commemoration involves the awarding of essay competition winners for university students. The year’s theme was: ‘The Role of Standards Education in Empowering African Education and Students for Opportunities and Challenges of Sustainable Development in the 21st Century’.

***“Quality is
everyone’s
responsibility”***

TBS's role in advancing clean cooking technologies



Mohamedi Kaila

Clean cooking technology refers to cooking methods and devices that significantly reduce or eliminate the harmful pollutants produced during cooking, especially compared to traditional methods like open fires or basic biomass stoves. These technologies are designed to improve health, reduce environmental impact, and promote energy efficiency.



The key features of clean cooking technology are low emissions, efficient fuel use, safe design and sustainable fuels. Clean cooking technologies release fewer harmful gases like carbon monoxide (CO), particulate matter, and black carbon; and use less fuel to produce the same amount of heat, saving money and resources. They also reduce the risk of burns, fires, and other accidents and often use clean energy sources like electricity, LPG, ethanol, or solar power.

Tanzania Bureau of Standards (TBS), which is the national standards body for Tanzania, plays a pivotal role in supporting and advancing clean

cooking technology through standardization and conformity assessment that ensure safety, attainment of intended performance, and shape technological advancement.

One of the primary ways TBS contributes to clean cooking technology is by developing comprehensive standards for the design, performance, and testing of cooking devices. The standardization of technologies ensures that the products meet certain safety and efficiency benchmarks, which is essential for widespread adoption.

As of now, TBS has developed national

standards that support the implementation of the National Clean Cooking Strategy. These standards aim to promote the adoption of clean and efficient cooking technologies across the country. By aligning with global best practices, this initiative positions Tanzania as a leading nation in advancing clean cooking solutions and contributes significantly to the achievement of global commitments, including the United Nations Sustainable Development Goals (SDGs), particularly Goal 3 (Good Health and Well-being), Goal 7 (Affordable and Clean Energy), and Goal 13 (Climate Action)."

National standards for clean cooking technologies

Various Tanzania standards have been developed to ensure that clean cooking technologies are safe, efficient, environmentally friendly, and health-protective. The standards so far developed in the area include standards for gas cylinders, namely TZS 1228:2009/ISO 22991:2004, Gas cylinders — Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) — Design and construction; TZS 915: 2015 ISO 10691, Gas cylinders — Refillable welded steel cylinders for liquefied petroleum gas (LPG) — Procedures for checking before, during and after filling; and TZS 916: 2015 ISO 10464: 2004, Gas cylinders — Refillable welded steel cylinders for liquefied

petroleum gas (LPG) — Periodic inspection and testing.

Other standards are for LPG burners, namely TZS 3128, Mountable burner for use with Liquefied EAS 940:2020 Petroleum Gas (LPG) — Specification; standards for LPG gas stove, i.e. TZS 3808, Domestic gas stoves for use with liquefied petroleum gases — Specification; and standards for grill and LPG gases, namely TZS 3129/ EAS 939:2020, Grill for domestic Liquefied Petroleum Gas (LPG) cylinders — Specification and TZS 818: 2022, Liquefied petroleum gases (LPG) — Specification respectively.



Some of the products/facilities for which national standards exist

Conformity assessment on clean cooking technologies

In addition to developing standards, TBS promotes clean cooking technology by providing testing facilities that measure the performance, safety, and environmental impact of cooking devices.

These testing protocols focus on several critical aspects, including emission levels, energy efficiency and thermal efficiency.

Under the aspect of emission levels, standards are set to measure emissions such as particulate matter (PM), carbon

monoxide (CO), black carbon, and volatile organic compounds (VOCs). By establishing rigorous testing methods for emissions, they help ensure that cooking technologies, especially those that use biomass or other fuels, meet minimum air quality standards.

Under energy efficiency, standards are developed to test the efficiency of cooking technologies in terms of fuel consumption and cooking time. Efficient cooking devices that require less fuel and cook food faster not only reduce environmental impact but also decrease costs for users, especially in developing regions. On the other hand, thermal efficiency includes testing how effectively a stove or cooking technology uses heat. More efficient stoves convert more of the energy into useful heat, which improves cooking performance and reduces fuel use.

In a nutshell, TBS promotes clean cooking technologies through standardization and rigorous conformity assessment practices including inspection, testing and certification. By developing and enforcing standards, testing products for emissions, energy efficiency, and safety, and certifying clean cooking devices, TBS helps ensure that these technologies are safe, effective, and reliable.

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



Benefits of recycling codes on plastic products



Miraji Kambangwa

Plastic is one of the most versatile and useful materials known to humans. Malleable, lightweight, and cheap to work with, plastic can be formed into almost any shape and is used across countless industries.

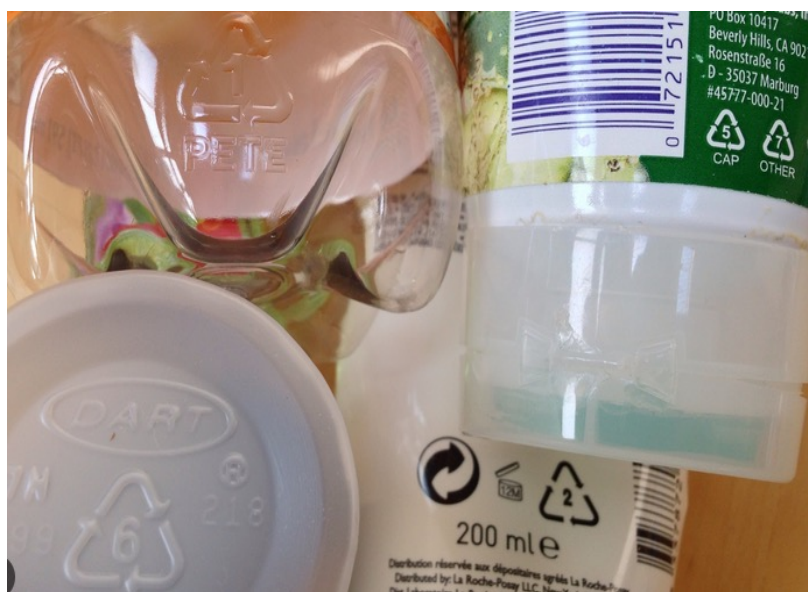
Plastic products are items that consist entirely or in part of plastic materials, which are either synthetic or semi-synthetic polymers, known for their adaptability, strength, and capacity to be formed into different shapes.

Plastic containers are storage or packaging products made from various **plastic materials** (polymers or resins). They are used to **hold, protect, store, and transport** a wide variety of goods, such as **food, beverages, household**

products, chemicals, and personal care items.

The **recycling codes** (also called **Resin Identification Codes**, or **RICs**) are helpful information for identifying **different types of plastics** used in containers and packaging.

These codes are usually printed inside the **triangle of arrows** on plastic products and containers. Each number represents a **different plastic resin**, which impacts **recyclability, reuse, and environmental impact.**



Plastic containers marked with recycling codes
(Picture by Wikipedia)

The recycling codes for plastics are divided into seven categories. Generally, the higher the number, the more difficult it is for the material to be recycled. These codes help in sorting plastics for

recycling, since different resins have different properties and recycling processes. The codes range from 1 to 7, and the list below explains what each number refers to.



Polyethylene terephthalate (PET or PETE)

These are very common, easy to recycle types of plastic. It is commonly found in disposable food and drink containers, including water and soda bottles, and prepared and frozen food containers.

PET/PETE plastic is widely accepted in recycling programs because it is easy to recycle, highly demanded, safe and versatile, energy-efficient to process, and profitable for recycling businesses. It can be recycled into new containers, textiles (fleece jackets), carpets, and strapping.

It is important to note that PET/PETE is usually **single-use**. If reused, it can absorb flavours and bacteria.



High-density polyethylene (HDPE)

These are non-transparent plastics, also widely accepted in municipal recycling programs. It is commonly found in household cleaner bottles/detergent bottles, milk jugs, juice bottles, and shopping bags.

HDPE is easily recycled. It can be recycled into pipes, plastic lumber, new bottles, and crates.

It is worth noting that HDPE is strong and resistant to moisture, **safe for food**, and for **long-term use**.



Polyvinyl chloride (PVC)

PVC is more difficult to recycle than PET 1 and HDPE 2. This type of plastic can be found in children's toys, pipes, clear food packaging, shrink and wrap. It can be recycled into pipes, tiles, and flooring. It contains chlorine, a potential health hazard, if burned or degraded improperly.



Low-density polyethylene (LDPE)

A soft, flexible type of plastic that is commonly used to make thin plastic bags. This type of plastic can be plastic bags, bread bags, frozen food bags, and squeeze bottles. It can be recycled into trash can liners, floor tiles, and shipping envelopes.

LDPE is flexible and lightweight, often used for **film and wrap packaging**.



Polypropylene (PP)

PP plastic can be found in straws, soft-drink cups, and certain food containers. It is commonly used for yogurt containers, straws, bottle caps, and food tubs. It can be recycled into brooms, ice scrapers, trays, and car battery cases. **Important note is that PP is heat-resistant**, safe for **microwave and dishwasher use**.



Polystyrene (PS)

PS plastic is also known as Styrofoam. It is commonly found in takeout containers and disposable cups. It is generally not accepted within recycling programs. It is important to note that PS is lightweight but breaks easily. It may pose an environmental concern due to microplastics.



Other (mixed or layered plastics)

This type commonly uses bisphenol A (BPA) — containing plastics, polycarbonate, bioplastics and sunglasses. Recyclability



of these types of plastics varies depending on the material; some are recyclable, others are not.

It is important to note that this is the catch-all category. Some are bio-based plastics and others are compostable plastics.

Benefits of recycling codes on plastic products

The recycling codes can make life a lot easier for consumers, often seen as numbers inside the chasing arrows symbol on plastic products, but play a crucial role in the identification of their features.

Some of the key benefits of recycling codes on plastic products include helping consumers properly sort and recycle plastics. The codes also inform manufacturers and recycling facilities of the resin type, which determines processing methods. They also increase awareness to users on health and environmental impacts associated with different plastics.

Another key benefit of recycling codes on plastic products is that the codes can be used by consumers to make a distinction between plastics that would be safer to use than other plastics because some plastics with code (like number 7 "Other") may contain harmful chemicals like bisphenol A (BPA).

Economically, coding creates jobs. The more recycling the more employment in sorting, processing, and reuse sectors.

Disadvantages of missing recycling codes on plastic products

Some plastic products degrade to chemicals with estrogenic activity. The primary building block of polycarbonate, bisphenol A (BPA), is an estrogen-like endocrine disruptor that may leach into food. Research in environmental health perspectives indicates that BPA leached from the lining of tin cans, dental sealants, and polycarbonate bottles can increase the body weight of laboratory animals' offspring.

It may lead to incorrect disposal of plastic waste. The most common negative impact of labeling errors or not labeling the identification codes is that plastics get disposed of in the wrong way. Recyclable plastics like PET and HDPE might be simply tossed into the trash, or hard-to-recycle plastics could get mixed in with others.

The wasted resources occur when plastics that are difficult to recycle (like those with the codes 4 - 7) are mixed in with others, a lot of time and effort have to be wasted in separating them all before they can be properly recycled.

Mixing incompatible plastics may also lead to contamination risk. The unknown materials can contaminate batches, making entire loads of recyclables unusable and that also can damage the recycling equipment. Moreover, some plastics melt at different temperatures or release harmful fumes during melting, hence without codes, this increases health risk the people.

To conclude, it is worth noting that resin identification codes make recycling more efficient, safe, and sustainable, and help everyone from consumers to manufacturers contribute to reducing plastic waste. In protecting the health of consumers of plastic products such as plastic containers, the manufacturers should display recycling codes on plastic products and packaging (containers). Also due to the possibility of emerging plastic particles (contaminants) such as microplastics or nanoplastics in bottled water and BPA, the Bureau has the duty to insure the plastics and plastic containers conform to their specific standards, manufactured from required resin, recycled in the manner as required, and educate/insists manufactures on the bottles obtained from recycled plastic are not used in food and drink containers.

At regional level, the East African Standard (EAS), Plastic — Codes for resin identification on plastic products, specifies codes for identifying the resin content of plastic containers used by the public and for facilitating sorting as prerequisites for successful plastic recovery and recycling. After gazettment, Tanzania will enforce the standard at national level to ensure public safety and health.

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



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in Global Trade**