



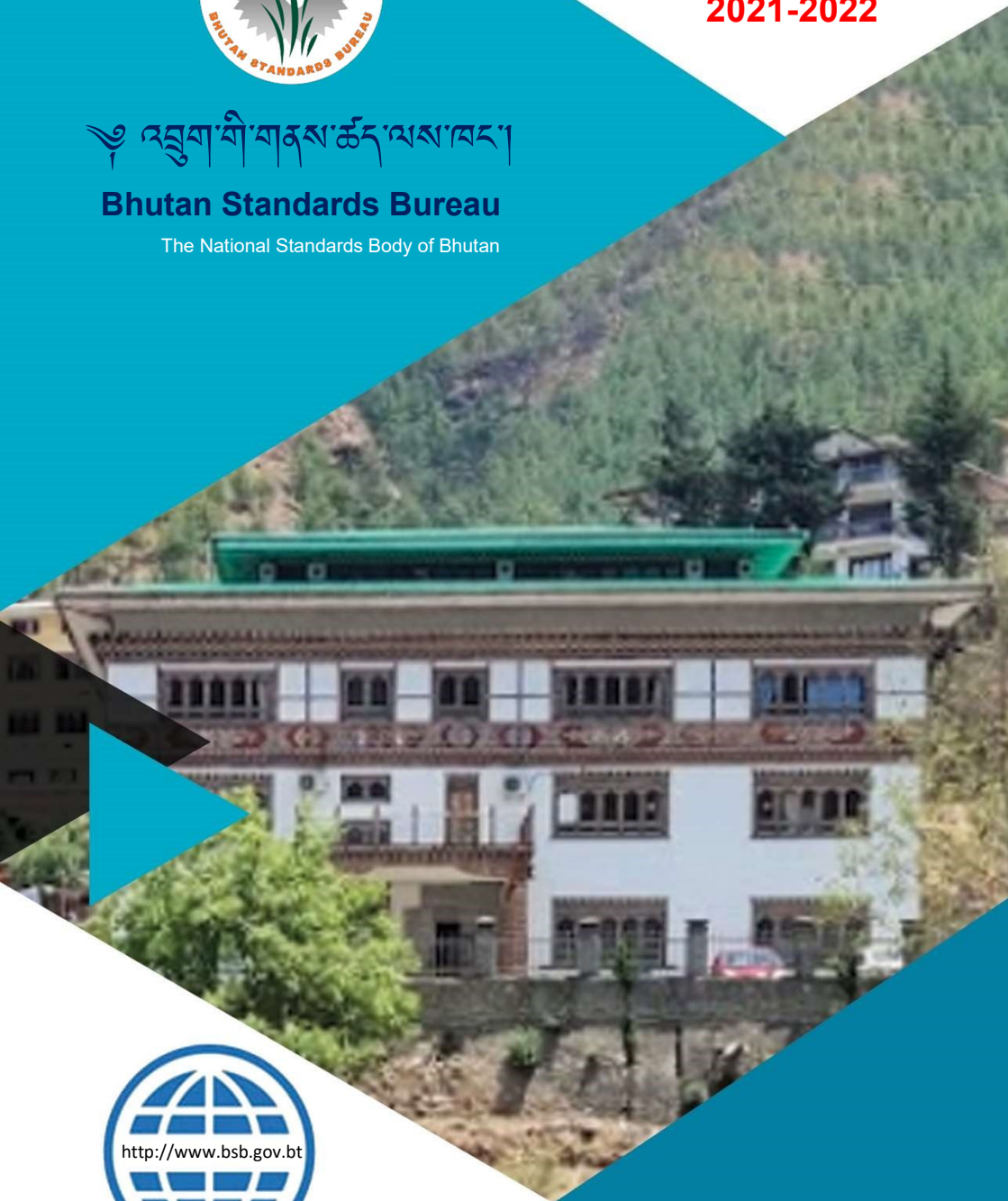
# ANNUAL REPORT

## 2021-2022

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**Bhutan Standards Bureau**

The National Standards Body of Bhutan



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### Message from the Chairman

Another financial year has come to an end. Despite the challenges posed by the COVID 19 pandemic, I am pleased by the performance of the Bhutan Standards Bureau in terms of services related to standards, conformity assessment, metrology and calibration.

COVID-19 has changed the way we work and the challenges have been immense. However, it was a blessing in disguise. It has made us more efficient and taught us to work under duress and find alternative ways to achieve our goals.

Apart from carrying out its normal operation in delivering its varied services, BSB has contributed to the Start-up and Cottage and Small Industries Flagship Program (CSI FSP) by certifying Dappa, Bangchung, wooden doors and windows. BSB is also supporting the Enhanced Integrated Framework (EIF) Programme funded by the EU by developing standards on a number of local products which are elaborated in this Report. These works will definitely help the CSIs grow and enable our local products to enter the regional and international markets. BSB must be at the forefront helping Bhutanese industries to meet the demands of the local as well as international markets through standardization and conformity assessment services.

BSB has also carried out a number of awareness programs and also provided laboratory and field testing services to various agencies including the private sector, apart from also providing calibration services through its Metrology Laboratory.

I, on behalf of the Board and, on my own behalf, would like to wish everyone another year of success and fulfillment!

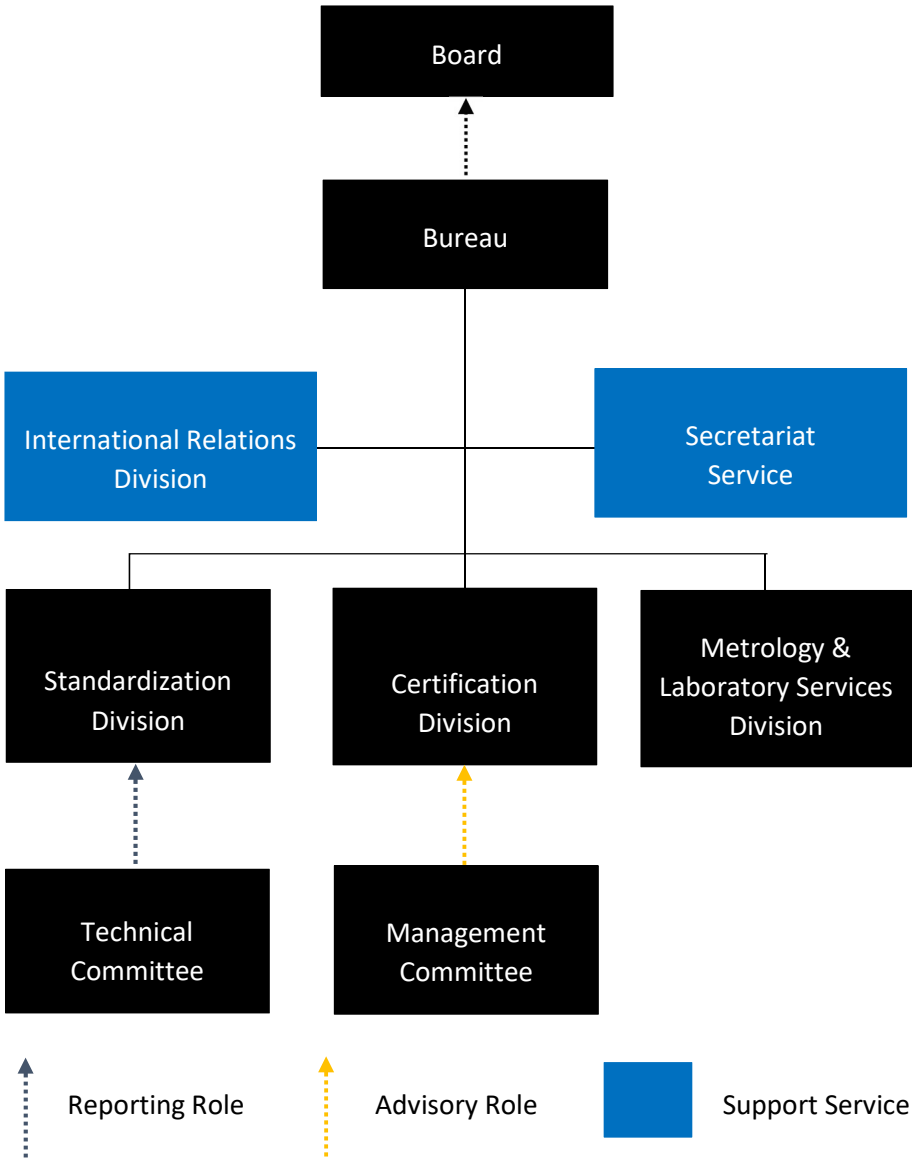
Trashie Delek!

Lyonpo Loknath Sharma  
Minister for Economic Affairs  
Thimphu

## Mandates of the Bureau

- 01 develop national standards and facilitate their implementation;
- 02 establish and operate metrological referral and calibration laboratories;
- 03 establish and operate product testing infrastructure;
- 04 carry out/operate product and management system certification schemes;
- 05 permit, coordinate and facilitate accreditation of laboratories and certification bodies;
- 06 promote quality and standardization;
- 07 oversee the implementation of Regional and International Trade Agreement related to standards and Technical Barriers to Trade;
- 08 carry out such other mandate related to standardization and quality control including monitoring as may be assigned by the Royal Government.

BSB Governance Structure



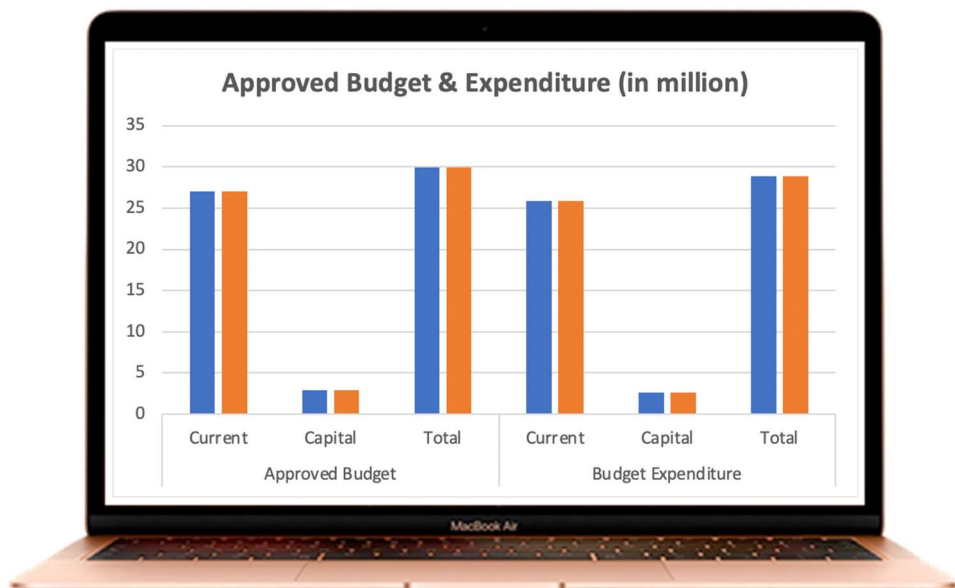
**BOARD OF DIRECTORS**

The composition of the Board was reconstituted on 10th November 2021:

<b>Sl. No</b>	<b>Name and Designation of the Members</b>	<b>Department /Organization /Ministry</b>
1	Hon'ble Tengye Lyonpo Loknath Sharma, Hon'ble Chairman	MoEA
2	Mr. Sonam Tenzin	DG, DoT, MoEA
3	Director General	BAFRA, MoAF
4	Director	DoS, MoLHR
5	Mr. Karma Drupchuk	Director, DES, MoWHS
6	Mr. Sangay Dorji	SG, BCCI
7	Director General	BSB, MS

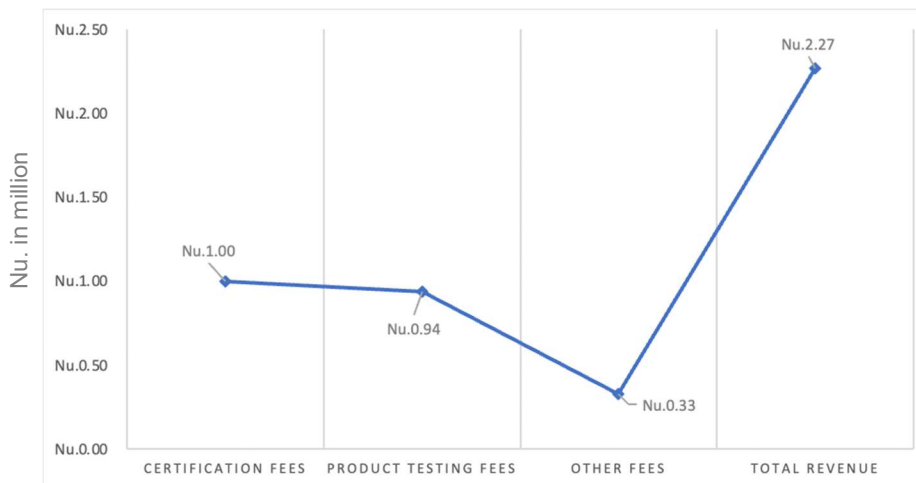
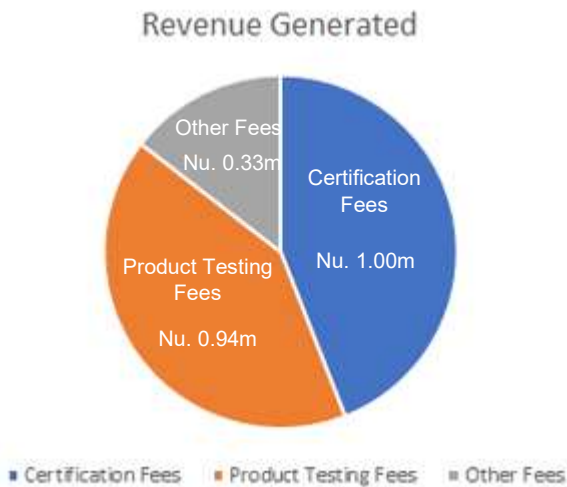
Approved Budget and Expenditure (in million)

Organization Name	Approved Budget			Budget Expenditure		
	Current	Capital	Total	Current	Capital	Total
Bhutan Standards Bureau	26.974	2.918	<b>29.892</b>	25.824	2.624	28.848
<b>Grand Total</b>	<b>26.974</b>	<b>2.918</b>	<b>29.892</b>	<b>25.824</b>	<b>2.624</b>	<b>28.848</b>



Nu. In million

Revenue Generated as of 29<sup>th</sup> June 2022 (in million)





## STANDARDIZATION SERVICES

### Developing Standards and Raising Awareness

A total of 19 National Standards were developed and adopted during the FY 2021-2022

Number of standards formulated in the FY 2021-2022	
Sl. No	Title of the Standards
01	BTS 363: 2022 IS 14543: 2016 Packaged Drinking Water (other than Packaged Natural Mineral Water) - Specification (Second Revision)
02	BTS 364: 2022 Portable Brush Cutter-Basic Requirements (Part 1)
03	BTS 365: 2022 Portable Brush Cutter -Test Code (Part 2)
04	BTS 366: 2022 Good Agricultural Practices - Field Crops and, Species and Herbs
05	BTS 367: 2022 ISO 14020: 2000 Environmental Labels and Declarations - General Principles
06	BTS 368: 2022 ISO 14024: 2018 Environmental Labels and Declarations - Type 1 Environmental Labelling - Principles and Procedures
07	BTS 369 : 2022 Quinoa
08	BTS 370: 2022 Large Cardamom Capsules-Specification
09	BTS 371: 2022 Tricholoma matsutake (Sangay Shamu)

10	BTS 372: 2022 Grain Mill- Basic Requirements(Part 1)
11	BTS 373: 2022 Grain Mill- Test Code(Part 2)
12	BTS 374: 2022 IS 5405: Sanitary Napkins
13	BTS 375: 2022 Yartsa Guenbub (Cordyceps)
14	BTS 376:2022: Production Process of Local Cotton Yarn
15	BTS 377:2022 ISO 2403:2021 Textiles — Cotton fibres — Determination of micronaire value
16	BTS 378:2022 ISO 4912:1981 Textiles — Cotton fibres — Evaluation of maturity — Microscopic method
17	BTS 379:2022 ISO 4913:1981 Textiles — Cotton fibres — Determination of length (span length) and uniformity index
18	BTS 380:2022 IS 14379 : 1996 Textiles - Grading of cotton
19	BTS 381:2022: - Production Process of Local Nettle Yarn

**Meetings conducted for the formulation of standards**

A total of 20 committee meetings were conducted during the FY 2021-2022

<b>Name of the Technical/Sub Committee Meetings Conducted</b>	
<b>Sl. No</b>	<b>Name</b>
01	14th Meeting of the Technical Committee on Wood & Timber Products (TC-07)
02	19th Meeting of the Technical Committee on Mechanical Engineering(TC-08)
03	20th Meeting of the Technical Committee on Mechanical Engineering(TC-08)
04	1st Meeting of the Subcommittee on Spices, Condiments & Culinary Herbs ( TC02/SC13)
05	1st Meeting of the Subcommittee on Mushroom (TC02/SC14)
06	1st Working Group meeting on Cotton (TC-06/WG-01)
07	1st Working Group meeting on Nettle (TC-06/WG-02)
08	8th Meeting of Textile and Handicraft Technical Committee (TC-06)
09	17th meeting of Electrical and Electronics Engineering Technical Committee (TC-03)
10	17th meeting on civil engineering standards (TC 01)

11	18th meeting on Food and Agriculture Standards (TC 02)
12	19th meeting on Food and Agriculture Standards (TC 02)
13	20th meeting on Food and Agriculture Standards (TC 02)
14	1st meeting of subcommittee on GAP (TC02/SC11)
15	1st meeting of subcommittee on cereal and cereal products (TC02/SC12)
16	1st meeting of subcommittee on Environmental Labelling (TC10/SC02)
17	14th meeting of the Technical Committee on Pharmaceuticals and Traditional Medicines (TC 05)
18	15th meeting of the Technical Committee on Pharmaceuticals and Traditional Medicines (TC 05)
19	1st Subcommittee meeting on Yartsa Guenbub (Cordyceps), (TC 05/SC03)
20	1st Subcommittee meeting on lemongrass Oil/Spray, (TC 05/SC02)

### World Standards Day, 14th October 2021

World Standards Day is observed every year on 14th October across the globe to recognize the efforts of thousands of experts who develop standards. Bhutan Standards Bureau also observed the World Standards Day (WSD) on 14th October 2021 aligning with the theme **‘SHARED VISION FOR A BETTER WORLD’**.



### Networking

1. Virtual participation in ISO Week 2021 (17,22,24 September 2021) (International Organization for Standardization)
2. Virtual participation in 85th IEC GM (3 to 7 October 2021 in Dubai, UAE) (International Electrotechnical Commission General Meeting) - Attendance to Affiliate Forum, Work for Industrializing Countries and NEC Secretaries and Presidents Workshops.

### Good Standardization Practices (GSP) of the International Organization for Standardization (ISO)

BSB has been a correspondent member of the International Organization for Standardization (ISO) since January 2005. As a member of the ISO, BSB has online access to the entire collection of international standards publication of the ISO.

BSB can also participate as an observer member to any of the ISO Technical Committees and Sub-Committees and also receives Technical Support for capacity building in the national standardization areas. ISO Good Standardization Practices (GSP) is one of such technical support offered by the ISO during the FY 2021-2022.

As part of the GSP, BSB completed three Workshops on Standards and Regulations during November and December 2021. The workshop was facilitated by Mr. Agust Jonsson, an expert in TBT related issues and an ISO consultant for Standards and Public Policies, Good Standardization Practices and National Standardization Strategies. The workshop covered Standards, Technical Regulations, Good practices in standards development, Relation between Standards and Technical Regulations, National Quality Infrastructure, Conformity Assessment, WTO Short Background and the TBT Agreement.

1. First workshop was held from 29th to 30th November 2021 with 35 representatives from Regulating, Autonomous, Auditing, Investigating Agencies and NGOs.
2. Second workshop was held from 1st to 2nd December 2021 with 45 representatives from the most relevant departments of the 10 Ministries.
3. Third workshop was held from 28th to 29th December 2021 with 49 members of various BSB Standards Technical Committees, Sub-Committees and Working Groups.

### **Awareness program**

Conducted an awareness program to the Bhutan Red Cross Society on the availability of standards related to COVID preparedness through the virtual mode during the COVID 19 Lockdown 5.0.

### **IEEE Government Engagement Program on Standards (GEPS)**

The Government Engagement Program on Standards (GEPS) is a tailored program for Government officials from around the world where they gain strategic insights into IEEE Standardization and contribute to discussions at the intersection of technology, standards and policy. The program provides information and resources tailored to each member's needs and interests, including bespoke webinars, and bi-lateral consultations with technical and standards experts.

BSB and Department of Renewable Energy (DRE) are currently participating in the Government Engagement Program on standards.

### **Pricing of National Standards**

The pricing of national standards was approved by the 14th BSB Board Meeting on 26th May 2022. The pricing structure is available on the BSB website [www.bsb.gov.bt](http://www.bsb.gov.bt).

## METROLOGY & PRODUCT TESTING SERVICES

The Product Testing Laboratory of the BSB provided 222 construction materials/product testing services plus 62 field tests (SPT & Core cutter) and generated Nu. 940,210.00 (Nine Hundred and Forty Thousands Two Hundred and Ten only) while the National Metrology Laboratory (NML) calibrated 470 measurement equipment and verified 50 brass cans, 83 balances, 13 fuel dispensing pumps and 25 pre-packaged goods. Besides, the BSB has also set up an Electrical Safety Laboratory and has tested 10 electrical products for basic safety parameters.

Since there is a shortage of space for expansion of Metrology and laboratory services, the BSB is actively pursuing construction of a separate National Metrology Laboratory and in this fiscal year, the design and drawings of separate National Metrology Laboratory (NML) was carried out and approved by Thimphu Thromde.

The summary of the product testing and metrology services provided during this fiscal year is given below:

Sl. No	National Metrology Laboratory	Nos
1	Calibration of Weights	23 (1 mg to 200 g)
2	Calibration in Thermometers	31
3	Calibration of volumetric equipment	49
4	Calibration of Balances	294
5	Calibration of measuring tapes and scales	67



6	Calibration of pressure gauge	3
	<b>Total</b>	<b>460</b>

<b>Sl. No</b>	<b>Legal Metrology Services</b>	<b>Nos</b>
1	Verification of Balances	119
2	Verification of conical brass cans	37
3	Verification of Fuel Dispensing Pumps	13
4	Verification of Prepackaged goods	25
	<b>Total</b>	<b>194</b>

<b>Sl. No</b>	<b>Product Testing Laboratory</b>	<b>Nos</b>
1	Test on steel and steel components	6
2	Test of coarse aggregates	20
3	Test of fine aggregates	14
4	Test on soil	39
5	Cube Tests	91
6	Test on bitumen	8
7	Test of concrete blocks	11

8	Test of cement	2
9	Standard Penetration Test (SPT)	26
10	Core Cutter Test	36
11	Test on Wood	2
12	Test on Electrical Products	10
	<b>Total</b>	<b>265</b>

#### **Collaboration with Menjong Sorig Pharmaceuticals Corporations Ltd.**

A Memorandum of Understanding (MoU) was signed between Bhutan Standards Bureau (BSB) and Menjong Sorig Pharmaceuticals Corporation Ltd (MSPCL), a DHI owned Company on 28th December 2021.

This MoU will ensure provision of smooth and timely calibration of MSPCL's manufacturing equipment, instruments and other portable measuring gadgets and also foster close cooperation with regard to other matters of common interests.

#### **Revision of product testing charges**

The 14th BSB Board Meeting approved the revised charges for product testing on 26th May 2022. The revised chargers are available on the BSB website [www.bsb.gov.bt](http://www.bsb.gov.bt).

## Charges for provision of calibration and verification

Calibration and verification of weights and measures have been provided free of charge till date. Owing to the high cost of maintaining the reference weights and measures, the proposal to start charging nominal fees for these services was approved by the 14th BSB Board Meeting held on 26th May 2022. The charges are available on the BSB website [www.bsb.gov.bt](http://www.bsb.gov.bt).

## Celebration of World Metrology Day, 20th May 2022

World Metrology Day is celebrated every year on the 20th May to commemorate the 1st Metre Convention held on 20th May 1875 whereby 17 nations came together and set the framework for global collaboration in the science of measurement and in its industrial, commercial and societal applications.

Every year a different theme is chosen for the celebration and this year the theme was “*Metrology in the Digital Era*”. At BSB, a small gathering of the staff was held whereby the message of the world metrology was read out and celebrated over a tea/coffee party.



## CERTIFICATION SERVICES

### Product and Management System Certifications

Towards fulfilling the mandate of product and management system certification, BSB, as stipulated both in the certification standards and the Rules Governing Product Certification, carried out the following:

1. Certified 69 products (41 Civil, 20 Electrical and 8 CSI) from 96 applications received as of 29th June 2022. More have been certified but certificate and payment not made.
2. Certified 2 products under the CSI FSP (Bangchung and Timber Doors & Windows)
3. Recertification of Karma Feeds, Phuentsholing Thromde and Bank of Bhutan for QMS ISO 9001:2015.
4. Generated Nu. 1.0 million in revenue from certification fees.
5. Conducted Awareness Programs in Trongsa, Bumthang, Zhemgang, Dagana, Tsirang, Thimphu, Trashigang, Trashiyangtse, Mongar, and Lhuentse.
6. Virtually trained eight personnel including officers from Standardization Division and Metrology and Laboratory Services Division in ISO 9001:2015 - Quality management systems - Fundamentals and vocabulary.

7. Attended a number of online trainings, webinars and workshops.
8. The virtual and office assessment of accreditation for product certification was carried out by NABCB, India. The successful assessments resulted in the reaccreditation of product certification for an additional 4 years till 2025.
9. BSB is also now part of the ADB Project: Improving Market Linkages for CSI products as a stakeholder.

### Certificate Award Ceremony

A Certificate Award Ceremony was held on 3rd September 2021 at LeMeridien, Thimphu, for the 6 product manufacturers certified under the Start-up and Cottage and Small Industries Program. The 6 products were Handmade Paper, Incense and incense powder, concrete bricks, Pencil, Raw silk and Sanitary napkins.



Representatives of the 6 product manufacturers with the Chairperson of the BSB Board, His Excellency Lyonpo Loknath Sharma, Guests and BSB officials

**Capacity Building of BSB****Staffs trained under various field**

<b>Sl.no</b>	<b>Title</b>	<b>Personnel Trained</b>
1	Webinar on Accreditation for Inspection Bodies, and its Benefits to Industry & Government Bodies.	4-Certification Division
2	Webinar on overview of ISO/IEC 17021-1:2015-conformity assessment-Requirements for bodies providing audit and certification of Management system with a focus on ISO/TS 22003:2013-Food Safety Management System	4-Certification Division
3	Webinar on Regulations, Accreditation, and Certifications in IT Sector	5-Certification Division
4	Webinar on Accreditation of Product Certification Bodies with an overview of ISO/IEC 17065:2012 standard	4-Certification Division
5	Training on PVC Insulated Electric Cables & Lead Acid Storage Batteries	2-Certification Division

**Virtual Training on ISO 9001:2015, Quality management systems - Requirements**

The training was intended for certification bodies to build the competency of the personnel for the quality management system certification as per ISO 9001:2015 standards. This

will also fill the human resources gap in the lack of auditors in the Quality Management System at BSB.

The training also helped the participants to understand the requirements of ISO 9001:2015, ISO 9000:2015 and ISO 19011:2015. With this, participants can audit any companies applying for QMS certification from BSB as per the Quality Management System requirements.

Moreover, this training is the only gateway to becoming an auditor for ISO 9001:2015 certification. Thus, BSB will be having 8 new auditors for the ISO 9001:2015 (QMS).



Participants attending the virtual training on ISO 9001:2015, Quality Management System

### **Virtual Workshop on Sanitary and Phytosanitary Measures (SPS) & Technical Barriers to Trade (TBT)**

Sanitary and phytosanitary (SPS) measures are quarantine and biosecurity measures which are applied to protect human, animal or plant life or health from risks arising from the introduction, establishment and spread of pests and diseases and from risks arising from additives, toxins and contaminants in food and feed.

The SPS Agreement provides a framework of rules to guide WTO Members in the development, adoption and enforcement of sanitary (human or animal life or health) and phytosanitary (plant life or health) measures which may affect trade.

Technical Barriers to Trade (TBTs) are technical regulations and standards. They cover all traded goods and include standards for food packaging and labelling, animal welfare, agriculture and veterinary chemicals, fisheries and forestry. TBTs can create interruptions and stifle trade opportunities.

The TBT Agreement addresses procedures for testing and certifying conformity to technical regulations (compulsory) and standards (voluntary) relevant to international trade.

The virtual workshop was organized by the Department of Trade, Ministry of Economic Affairs with support from the European Union - International Trade Centre (EU-ITC) to implement the EU-Bhutan Trade Support Project.

### **Virtual Workshop on Rules of Origin (RoO)**

A half day virtual workshop on Rules of Origin was organized by the Department of Trade, Ministry of Economic Affairs on 7th March 2022 with support from the European Union -



International Trade Centre (EU-ITC) to implement the EU-Bhutan Trade Support Project.

The workshop aimed to provide awareness and sensitization on the ITC/WCO Rules of Origin Facilitator (online tool) and enhance the capacity of public sector officials on key negotiating issues and challenges raised in negotiations on Rules of Origin.

### **Online Scientific Interaction Program (SIP) on Metrology**

A 15 days virtual interaction program on Metrology was organized by the SAARC-PTB project which focuses on capacity development in quality infrastructure by facilitating the exchange of expertise and information among SAARC Member States. The National Physical Laboratory (NPL), India was identified to provide resource persons to train the Metrologist in the interested National Metrology Institutes (NMI) in the SAARC member countries.

With this program, the BSB trained 15 engineers/technicians of the National Metrology Laboratory (NML) on various procedures and processes with regards to calibration of the following Physico-Mechanical parameters:

1. Length,
2. Volume,
3. Density and Viscosity,
4. Pressure and Vacuum,
5. Temperature,
6. Fluid Flow,
7. Mass and
8. Force & Hardness



Engineers/Technicians attending virtual scientific interaction program

### **Physical Scientific Interaction Program (SIP) on Calibration of CTM, UTM and Energy Meter**

Under the framework of SAARC-PTB cooperation, the Physikalisch-Technische Bundesanstalt (PTB) Germany sponsored the visit of 2 Engineers from BSB to National Physical Laboratory (NPL) India, New Delhi for a 4 days Physical Scientific Interaction Program.

The program facilitated training of 2 officials on calibration of CTM, UTM and energy meter.

### **Virtual Training on ISO/IEC 17043:2010**

The training on ISO/IEC 17043:2010- \*Conformity Assessment- General Requirements for Proficiency Testing was conducted by the Training and Capacity Building (TCB) Cell, Quality Council of India. The main objective of the training was to emphasize on the need for testing/calibration/ medical laboratories to participate in ILC organized by the Proficiency Testing Providers which are implementing a Quality Management System in accordance with the ISO/IEC 17043:2010.

The training was conducted to build the confidence of the Laboratory Staff in terms of the Laboratory Performance which is essential for the laboratory, customers, regulators and laboratory accreditation bodies like NABL. The training was a 3 month course with an examination at the end of the course.

### **Virtual Training on Uncertainty of Measurement and Decision rule as per ISO/IEC 17025:2017**

A 1 day training program was organized by the Training and Capacity Building (TCB) Cell, Quality Council of India for the Laboratory Engineers to develop the competency for the calculations of Uncertainty of Measurement.

The training was attended by 3 engineers of BSB that helped the participants to understand the basic concept of Metrology in line with the course of errors and their uncertainties. It also helped the participant to understand the calculation of compliance at various probability levels.

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## **Support to the Start-up and Cottage and Small Industries Flagship Program (CSI FSP)**

### **Background**

BSB became part of the CSI FSP from the 2019-2020 FY with the objective to develop 21 standards and certify 10 CSI products. BSB developed 17 standards in 2019-2020 FY including normative standards and another 10 standards in the 2020-2021 FY. This was followed by the certification of 6 products in the 2020-2021 FY (Handmade paper, pencil, incense and incense powder, concrete blocks, raw silk and sanitary napkins).

### **Activities in 2021-2022**

The activities in 2021-2022 involved the certification of 4 products that were standardized the previous FY (Dapa, bangchung and wooden door and windows). Other products related to food and agriculture would be certified by BAFRA.

### **Work plan and budget allocation**

<b>Sl. No.</b>	<b>Product</b>	<b>Budget allocation (Nu.) million</b>	<b>Timeline</b>	<b>Remarks</b>
1	Dapa, Bangchung, Wooden Doors & Windows (4 products)	0.35 each = 1.4	Before end of June 2022	Bangchung and one wooden doors and windows manufacturer certified

### Targets and Output

The timeline for completion of certification was the end of June 2022. However, only bangchung and one wooden doors and windows manufacturer have been able to meet the deadline. One wooden and doors and manufacturer is on hold and the final inspection of two dapa manufacturers in Trashiyangtse could not be carried out due to the bad road conditions and delay in the supply of equipment provided as an end to end support to the manufacturers. These will be completed before the end of July 2022.

### Plan for 2022-2023 FY

Four products have been identified for standardization in the next FY 2022-2023.



Inspection visit to M/s Community Liaison Cane and Bamboo Centre, Panbang, Zhemgang



Inspection visit to M/s Druk Integrated Wood Complex, Lobesa, Punakha



Inspection visit to M/s UDee Wood Manufacturing and Furniture Unit, Bumthang



Inspection visit to M/s Tshering Norbu Dapa Production, T/Yangtse

## **Awareness Programs to Dzongkhags/Thromdes**

### **Objective**

1. Create awareness on mandates and services of the Bhutan Standards Bureau (BSB)
  - 1.1. Standardization
  - 1.2. Certification
  - 1.3. Calibration and verification of weights and measures
  - 1.4. Product Testing
2. Highlight standing notifications of the government on the use of BSB certified products in public constructions and procurement
3. Discuss difficulties faced by the engineers in the Dzongkhags especially related to quality infrastructure
4. Discuss possible solutions to improve the quality of works
5. Exchange of knowledge and experiences

### **Areas Covered**

During this fiscal year the following Dzongkhags and Thromdes were covered:

- 1 Gasa
- 2 Punakha
- 3 Wangdiphodrang
- 4 Tsirang
- 5 Dagana
- 6 Trongsa
- 7 Bumthang
- 8 Zhemgang
- 9 Mongar
- 10 Lhuntse
- 11 Trashigang
- 12 TrashiYangtse
- 13 Thimphu



14 Thimphu

Thromde

### **Problems Faced**

- 1 Locally available concrete bricks in Dzongkhags are not certified by BSB so the products are not readily available at site.
- 2 The local block manufacturers are not able to supply adequately on time since they have limited production capacity.
- 3 Poor quality of works in constructions.
- 4 Some Hume pipe manufacturers are not certified by BSB but procured by procuring agencies.
- 5 The quality of local bricks is poor.
- 6 Concrete block manufacturers are not certified and do not have basic testing equipment.
- 7 Use of admixtures by concrete block manufacturers.
- 8 Un-availability of locally produced goods.
- 9 Are not aware of ways to differentiate between genuine and duplicate products.
- 10 Some Construction companies usually manufacture their own blocks on site.
- 11 Unavailability of certified electrical items due to pandemic.
- 12 Lack of basic testing infrastructure.

### **Major recommendations**

- 1 Need to establish a mechanism to stop substandard products entering Bhutan or a mechanism to ensure only the BSB certified products are allowed to enter the country.
- 2 2. Short term training for Dzongkhag engineers to keep abreast of the latest developments in the construction technology including different software systems.

- 3 3. Need for Standard Operating Procedure (SoP) for site engineers in the Dzongkhags/Thromdes.
- 4 4. Quality control is not active as there is no monitoring system in place. There should be a dedicated authority to monitor quality in the construction sector.
- 5 5. Need to support Concrete brick manufacturers with in-house testing facilities to improve the quality.
- 6 6. There is a need to establish a mechanism to ascertain the genuineness of products.
- 7 7. Provide workshops and basic training related to quality infrastructure to Dzongkhags from time to time.
- 8 8. Calibration of Compressive Testing Machines (CTM) to be facilitated by BSB.
- 9 9. Awareness program is important and should be given to the lowest level involved in the construction sector and should be conducted more frequently.
- 10 10. Frequent Monitoring/surveillance of the certified products/manufacturers.
- 11 11. Need for coordination between Engineering Services Division, MoWHS (ESD) who prepare BSR and BSB to ensure all the quality products and items are incorporated with rates. This is because BSB certified concrete bricks and other products are not incorporated in BSR.
- 12 12. The quality of crusher dust which is used as the aggregate for manufacture of concrete bricks must be checked by BSB.
- 13 13. Need of basic testing equipment for construction materials (or laboratory) at Dzongkhag to ensure and check the quality of products including training of the Engineers on testing. This is due to non-availability of a BSB laboratory nearby and it takes time for products to be tested.
- 14 14. The sampling of products for testing to be carried out either by site engineers or BSB officials as contractors submit different samples for testing.

- 15 Need for a case study on the use of certified products in construction for review and research.
- 16 17. Test report to indicate whether the product tested is passed or failed.
- 17 18. To take the red bricks out from the BSR, since there is a notification to use only locally manufactured bricks in public infrastructure constructions.
- 18 19. To have the certificate prominently displayed in manufacturer's premises certified by BSB.
- 19 20. To provide awareness to contractors, especially during the refresher course.
- 20 21. The government could control the cost of locally manufactured products such as bricks and pipes since the cost is escalated by the local manufacturers as there are only a few manufacturers.
- 21 22. There is a need for a quality officer in the Dzongkhags.



Awareness workshop in Bumthang

## Standardization Activities in pictures



20th technical committee meeting on Food and Agriculture Standards at BSB, Thimphu



1st subcommittee meeting on Quinoa standard development at Hotel Sonamgang, Punakha



20th technical committee meeting on Mechanical Engineering standards at BSB, Thimphu



1st Subcommittee meeting on Yartsa Guenbub (Cordyceps) at Namsey Choeling Resort, Paro



1st Working Group meeting on Cotton at Tashi Namgay Resort, Paro



1st Working Group meeting on nettle at IMS, Thimphu



17th Technical Committee meeting of Electrical and Electronics Engineering Standards at BSB, Thimphu



## INTERNATIONAL RELATIONS SERVICES

### Mandate

As per the Bhutan Standards Act 2010 (Act), Chapter 2, Article (4) the International Relation Division (IRD) of the Bhutan Standards Bureau (BSB) is established to provide support to the programme divisions such as Standardization Division (SD), Certification Division (CD) & Metrology and Laboratory Services Division (MLSD) facilitating international and regional cooperation critical for the recognition of standards and certification issued by BSB as a national standard body. The function among other things involve liaising with international, regional and bilateral bodies; initiating and negotiating memorandum of understanding/agreements; initiating, developing and implementing projects; and planning cross-cutting programmes including the National Accreditation Focal Point. The IRD is also entrusted with the following areas of work:

### Memorandum of Understanding & Cooperation Agreements

1. Initiating new memorandum of understanding and cooperation agreement for the approval of the RGOB
2. Reviewing the existing Memorandum of Understanding (MoU) and Bilateral Cooperation Agreements (BCA) signed with International/Regional/Bilateral organizations for renewal or such other actions. BSB has signed MOUs and BCA with the following international, and regional organizations including:
  - a) Formerly American Society for Testing Materials (ASTM) International.

- b) Bangladesh Standards and Testing Institution (BSTI).
- c) Bureau of Indian Standards (BIS).
- d) National Accreditation Board for Testing & Calibration Laboratories (NABL).
- e) National Accreditation Board for Certification Bodies (NABCB).
- f) The National Standardization Agency of the Republic of Indonesia (BSNI).
- g) Delhi Test House (DTH)
- h) Office of Consumer Protection (OCP) - Note of Understanding (NoU)
- i) Menjong Sorig Pharmaceuticals Cooperation Ltd.
- j) The Institute of Electrical & Electronics Engineers Incorporated (IEEE).

#### Memberships:

- a) Correspondent membership to International Organization for Standards (ISO) since 2005
- b) Affiliate + membership to International Electrotechnical Commission (IEC) since 2006
- c) South Asian Regional Standardization Organization (SARSO) since 2011
- d) SAARC Expert Group on Accreditation (SEGA)



**Liaison work with International organizations involving:**

- (a) Technical assistance and collaboration for update and reporting purpose

**Coordinating participation of the BSB at international forum including meetings:**

- (a) Participation at decision making as well as member of technical committees

**Liaison work with companies from India and Bangladesh for product certification involving:**

- (a) Acting as the interface for all product certification matters including receipt of applications, negotiating travel arrangements for the BSB auditors to the respective factory sites.
- (b) Facilitating travel arrangements for companies visiting BSB to submit product samples.

### **Major Plans of BSB for 2022-2023**

1. Initiate increase in scope of accreditation for product certification to include ferro-silicon. This is the biggest export commodity for Bhutan. Currently only cement, steel and bitumen emulsion have accreditation.
2. Initiate increase in scope of accreditation for Metrology Laboratory to include volume and temperature. Currently only mass and length are accredited.
3. Expand scope of accreditation to include Vernier calipers and micrometers under length laboratory.
4. Introduce calibration services for CTM (Compressive Testing Machine) to benefit concrete blocks manufacturing industries.
5. Initiate accreditation of the steel and concrete blocks testing laboratories.
6. Verification of Pre-packaged goods in terms of quality.
7. Start charging fees for verification of weights and measures including pre-packaged commodities.
8. Signing of MRA between RGoB and GoI for the acceptance of each other's conformity assessment (certification) on an agreed list of products. This will do away with the need for local manufacturers to get certification and marking licenses from external certification bodies.
9. Implementation of the strategy to stop the inflow of spurious products entering the Bhutanese Market.
10. Formulate 15 national standards for local products annually in support of Brand Bhutan Initiatives.
11. Provide 10 specific standards training annually to manufacturing industries and regulators.

12. Increased support to the Cottage and Small Industries to tap regional and international markets for their products through standardization and conformity assessment.

### **Roadmap for the future**

1. Vigorous awareness programs on the services provided by BSB.
2. Increased support to the Cottage and Small Industries to tap regional and international markets for their products through standardization and conformity assessment including Brand Bhutan Initiatives.
3. Increased collaboration and coordination in standardization, conformity assessment and metrology with other relevant stakeholders to facilitate import and export of goods and services.
4. Clarity in the mandates and reduced duplication in the services provided.
5. BSB as an institution strengthened and its importance and service delivery enhanced.
6. Facilitate and support trading of local goods and services.
7. Facilitate the prohibition of import of products not conforming to mandatory Bhutan Standards.
8. Promote Quality and Standardization.
9. Enhanced verification of weights and measures.
10. Strengthen the metrology and product testing laboratory.



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