CSN Network/Portal component Mapping

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**Specific Objectives of the Assignment**:

- to identify accurately which ISO and IEC standards have been adopted by each of the 54 Commonwealth countries,
- to identify and document any trends or obstacles in the adoption of IS, analyze info gathering gaps and recommend a methodology/timeframe of how it can be obtained.

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# Abbreviations

| | |
|---|---|
| ARSO | African Organisation for Standardisation |
| BS | British Standards |
| CARICOM | Caribbean Regional Integrated Community |
| COMESA | Common Market for Eastern and Southern Africa |
| CROSQ | CARICOM Regional Organization for Standards and Quality |
| CRS | CARICOM Region Standard |
| CSN | Commonwealth Standards Network |
| DFID | Department for International Development |
| EAS | East Africa Community Standards |
| NSB | National Standards Body |
| NQI | National Quality Infrastructure |
| NRCA | National Regulatory Compliance Authority (of Jamaica) |
| SADC | South Africa Development Community |
| SANS | South Africa National Standard |
| TBT | Technical Barriers to Trade |

## 1. Executive Summary

The study is based on available data, which was not always coherent or up-to-date. Despite such limitations, the figures provide an overall valid picture on the adoption of IS in the Commonwealth countries. Harmonization can be summarized as follows: half of the members have adopted 50% or more IS, one third have adopted between 15% and 50% of IS, and one fifth of the members have adopted less than 10% of IS in their corpus.

These figures, as well as the wide disparity of formats and channels to present the standards corpus, call for targeted support in the purpose to rationalize, improve, and enlarge the use of IS and its reporting among the Commonwealth Members.

## 2. Mission Objectives

- i) to identify accurately which ISO and IEC standards have been adopted by each of the 54 Commonwealth countries,

- ii) to identify and document any trends or obstacles in the adoption of IS, gathering gaps and recommend a methodology/timeframe of how it can be obtained.

## 3. Issues encountered

- WTO members don't always publish their Standards Catalogue and Work Programme; when such documents are available, they are not always up-to-date. Other NSB have 'Standards' List' or keep the National Gazette/Bulletin with the adoption. However, the lists are not always updated (in particular for standards that have been withdrawn subsequently). The Gazette issues do not include cumulative lists/numbers. At times, the information on the website contradicts the numbers in the catalogue or list. In most cases, it remains uneasy to determine the exact numbers of nationally developed standards and adopted IS in use: the consultant has done some extrapolation based on the fact that standards proposal in the work programme will eventually become part of the national corpus.
- With very few exceptions, NSBs do not provide a summary of information on the adoption and maintenance of their standard corpus.
- The same remarks stand for the on-line catalogues. Logically, the page-based search function allows to find standards based on their number or on key words. However, depending on the systems used, the search function is not always user friendly (can't combine criteria, or don't offer useful criteria…). Very few on-line catalogues allow displaying sub-groups, and virtually none shows an information summary. The key-word based search is not always performing well; therefore, the consultant had to copy and paste the online pages into Excel tables for further analyses.
- Globally, the numbers gathered though the above-mentioned process can't be considered as 'current and accurate'. The consultant estimates a margin of error of ten percent (±5%) for both total and adopted international standards numbers. The figures obtained are nevertheless adequate to form a global picture that is relatively coherent; it should be relatively easy to further update NSBs' data through individual interactions.
- There is a significant number of regional standards adopted in the national corpus; for example, in the Caribbean region, in the East Africa region, and in the South Africa Development Community. The extent to which these regional standards are similar or equivalent to IS is not known. While it would be theoretically possible to check the regional standards lists and then to identify those present in the concerned NSBs' corpuses, this exercise is likely to require significant amount of time.

## 4. Deliverables of adoptions

- A summary table with the adoption of IS has been completed. A copy of the table is in Appendices.
- The analysis shows that about half (25 out of 53) members have a harmonization rate above 50%. About a third of Commonwealth members have a harmonization rate between 15 and 50%; and about a fifth have very low or null alignment rate.

## 5. NSB status, constraints and gap analysis

The percent figure is the proportion of standards identical or equivalent with ISO, IEC and CODEX[1] standards.)

### 1. Antigua & Barbuda

*Status:*
- Website was modern and user-friendly.
- The NSB is a member of the CARICOM and CROSQ, the regional Standardization Organization.

*Gaps:*
- The web-based standards list was not updated (March 2017), but recent adoptions were indicated (2019).

*Trends:*
- CARICOM standards were found to consist of 80% of the corpus.
- A&B has adopted a few Code of Practice for areas of interest: water, fruit/juices, food hygiene and safety, tourism...
- The current specifications targeted mostly food& beverages, with a few on drugs, pesticides, cosmetics, and services (vehicle rental, tourism, SME management...).
- Four ISO standards, for tourism services, have been adopted.

*Sales point:*
- **ABBS:** https://abbs.gov.ag/the-bureau/about-abbs/; https://abbs.gov.ag/contact-us/
- **Key CSN contact(s):**
  - Dianne Lalla-Rodrigues: dianne.rodrigues@antigua.gov.ag
  - Gem Reynolds: gem.reynolds@ab.gov.ag
- **WTO TBT contact(s):** tbt.enquiries@ab.gov.ag; solange.baptiste@ab.gov.ag
- **Standards for Sale:** https://abbs.gov.ag/standards/standards-for-sale/
- **Standards Catalogue:** TBC

### 2. Australia

*Sales point:*
- **SA:** https://www.standards.org.au/about/what-we-do; https://www.standards.org.au/contact
- **Key CSN contact(s):**
  - Pamela Tarif: pamela.tarif@standards.org.au
  - Torrin Marquardt: torrin.marquardt@standards.org.au
- **WTO TBT contact(s):** tbt.enquiry@dfat.gov.au
- **Standards for Sale:** https://www.standards.org.au/access-standards/buy-standards
- **Standards Catalogue:** TBC

### 3. The Bahamas - 56 %

*Status:*
- The BBS was created in 2017, and recently reorganized (2019);
- The BBS website shows three standards and eight codes of practice gazetted, and 14 IS in preparation for adoption.

[1] The figure does not include ASTM and EN norms, since these are not strictly speaking international standards despite being widely used.

- The BBS is a member of CARICOM and CROSQ, the regional Standardization Organization.

*Gaps:*
- Most of the TC had become inactive, four were noted as 'active' on the website.

*Trends:*
- No catalogue and no work programme were published although the NSB has developed a NQP and a strategic plan.
- Focus was on conformity assessment with 14 ISO standards being adopted.

*Sales point:*
- **BBSQ:** https://www.bbsq.bs/en/about-bbsq; https://www.bbsq.bs/en/contact-us
- **Key CSN contact(s):**
  - Renae Ferguson-Bufford: renae.bufford@bbsq.bs
  - Marva Williams: marva.williams@bbsq.bs
- **WTO TBT contact(s):** info@bbsq.bs
- **Standards for Sale:** https://www.bbsq.bs/en/standards/purchase-standards
- **Standards Catalogue:** TBC

## 4. Bangladesh

*Status:*
- The NSB appeared active with involvement in all functions of conformity assessment.

*Trends:*
- Bangladesh had a high harmonization rate, which could be explained partly by the export orientation of the country. The average proportion of standards equivalent to IS was 71%, with almost 100% for the engineering standards.

| Area | % Total | Number of National Standards | Identical or Equivalent to IS | Rate of Harmonization |
|---|---|---|---|---|
| Chemical | 17% | 372 | 170 | 46% |
| Agriculture | 18% | 388 | 248 | 64% |
| Engineering | 34% | 737 | 724 | 98% |
| Electrical | 20% | 435 | 251 | 58% |
| Textiles and jute | 11% | 245 | 142 | 58% |
| All areas | 100% | 2,177 | 1,535 | **71%** |

- International standards used were those of ISO, IEC and CEN, and to a lesser extent those of CAC (agriculture products).

*Sales point:*
- **BSTI:** https://www.bstibds.com/welcome/about; https://www.bstibds.com/welcome/contact
- **Key CSN contact(s):**
  - Mamun Khaled: mamunbsti@gmail.com
  - Rahima Talukder: reshmart.12@gmail.com
- **WTO TBT contact(s):** bsti_std@bangla.net; bsti_ad@bangla.net
- **Standards for Sale:** https://www.bstibds.com/welcome/store_products
- **Standards Catalogue:** https://www.bstibds.com/catalouge

## 5. Barbados

*Status:*
- The NSB is a member of CARICOM and CROSQ, the regional Standardization Organization.

*Gaps:*

- Over the period 1970 to 1990, a number of International Standards in the form of Codex Alimentarius Commission standards were adopted as National Standards and given a code number without reference to the original CODEX standard code. It is estimated that about 50 of these product specifications were similar to CODEX ones.

*Trends:*
- BNSI seemed to focus on regulatory activity: a total of 44 compulsory standards were related to health, public safety, food, labelling and environmental protection; only 25 'compulsory standards' are based on the CODEX standards.
- Among the ISO adoptions, the focus was on QMS and environmental standards, and on tourism services.

*Sales point:*
- **BNSI:** https://commerce.gov.bb/barbados-national-standards-institution-bnsi/; https://commerce.gov.bb/contact-us/
- **Key CSN contact(s):**
  - Fabian Scott: fscott@bnsi.com.bb;
  - Hadyn Rhynd: hrhynd@bnsi.com.bb
- **WTO TBT contact(s)**: rsealy@bnsi.com.bb
- **Standards for Sale:** TBC https://commerce.gov.bb/national-standard/
- **Standards Catalogue**: TBC

## 6. Belize

*Status:*
- The NSB is a member of CARICOM and CROSQ, the regional Standardization Organization.
- Based on the web site information, 24 regional standards were in process of being adopted and 15 new standards were under development.

*Trends:*
- BBSQ's activity had focus on consumer protection through the mandatory application of standards: 22 out of the 32 standards and codes have been made compulsory.
- The work programme included more engineering and mechanical standards, that are under-represented in the current corpus (7 texts for chemical, engineering, and petroleum products).

*Sales point:*
- **BBS:** https://bbs.gov.bz/about-bbs/; https://bbs.gov.bz/contact-us/
- **Key CSN contact(s):**
  - Jose Trejo: jose.trejo@bbs.gov.bz
  - Lloyd Orellano: lloyd.orellano@bbs.gov.bz
- **WTO TBT contact(s)**: tbtenquiry-belize@bbs.gov.bz
- **Standards for Sale:** TBC
- **Standards Catalogue:** https://bbs.gov.bz/standards-catalogue/

## 7. Botswana

*Status:*
- the NSB had a sustained activity as attested by the 54 technical committees and a very ambitious work programme.
- The work programme was published and included 267 new standards, of which 85 IS, 59 SANS and 26 EN texts.

*Trends:*
- Botswana is increasingly adopting regional standards (ARSO and SADC) as well as international standards ISO, IEC, EN.
- No CODEX standards (2 occurrences) were found in the corpus
- The BOBS created mandatory standards or technical regulations, in particular aimed at controlling quality of imports. Some products subject to import inspection include: electrical plugs, adaptors, socket outlets, electric irons, milk (raw and pasteurized), yoghurt, pulses, canned fish, cattle feeds and chicken feed.

*Sales point:*

- **BOBS:** http://www.bobstandards.bw/Pages/about; http://www.bobstandards.bw/Pages/bobcontactus.asp
- **Key CSN contact(s):**
  - Jonah Ernest: ernest@bobstandards.bw
  - Omri Mokgosi: mokgosi@bobstandards.bw
- **WTO TBT contact(s)**: infoc@hq.bobstandards.bw
- **Standards for Sale:** https://bobs.isolutions.iso.org/bobs
- **Standards Catalogue:** http://www.bobstandards.bw/Pages/Published-Standards.aspx?

## 8. Brunei Darussalam

*Status:*

- The NSB was under the authority of the Ministry of Energy, after being under Min. of Finances. The two Ministries are hosting pages for the 'National Standards Center'; however, the site of Ministry of Energy was noted as more recent; it showed links to the National Standards Library.
- Neither the Ministry, or the Library was responsive to requests.

*Trends:*

- Based on secondary sources, there would be about 150 standards or guidelines in use. These would include Brunei Darussalam Standard, Malaysia Standards, Singapore Standard, Philippines Standard, British Standards, some ISO management systems standards (HACCP, Quality Management System, GMP, GAP, GHP, FSMS), as well as thematic standards for construction, electrical and electronics (of which 74 equivalent to IEC), halal, agri-food, and tourism.

*Sales point:*

- **MoE/MOFE:** TBC
- **Key CSN contact(s): TBC**
- **WTO TBT contact(s)**: nationalstandard@mofe.gov.bn
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

## 9. Cameroon

*Trends:*

- The work programme included some 987 items, with increased adoption of CODEX and ISO standards in the fields of agriculture, food, food process, as well as water and environment.

*Sales point:*

- **ANOR:** https://www.anorcameroun.info/index.php/qui-sommes-nous; https://www.anorcameroun.info/index.php/site/contact
- **Key CSN contact(s):**
  - Emmanuel Chesami: emchesami@gmail.com
- **WTO TBT contact(s)**: TBC
- **Standards for Sale:** https://www.anorcameroun.info/index.php/vente-norme
- **Standards Catalogue:** https://www.anorcameroun.info/index.php/normes

## 10. Canada

*Trends:*

- Canada has several sources of standardization: the corpus includes both 'Canada national standards', Canada standards, and international adoptions.
- Harmonization rate is very high, with a high alignment with ISO and IEC standards.

*Sales point:*

- **SCC:** https://www.scc.ca/en/about-scc; https://www.scc.ca/en/contact-us
- **Key CSN contact(s):**
  - Alec Clark: alec.clark@scc.ca
  - Cristina Draghici: cdraghici@scc.ca

- **WTO TBT contact(s)**: enquirypoint@international.gc.ca
- **Standards for Sale:** https://www.scc.ca/en/standards/find-or-buy-standards/buy-standards
- **Standards Catalogue:** https://www.anorcameroun.info/index.php/normes

### 11. Cyprus

*Trends:*
- 31 Cyprus standards were still active, of which 11 based on BS.

*Sales point:*
- **CYS:** https://www.cys.org.cy/
- **Key CSN contact(s):**
  - Athina Panayiotou: apanayiotou@cycert.org.cy
- **WTO TBT contact(s)**: director@cys.mcit.gov.cy; aioannou@cys.mcit.gov.cy
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 12. Dominica

- Ten standards have been adopted and mandated on labelling requirement (8), food hygiene (COP:1) and lead contents in paint (1).
- There could be 16 other standards in use, mentioned in separate sources/websites but not gazetted.

*Sales point:*
- **DBOS:** website inaccessible
- **Key CSN contact(s):**
  - Median LaRocque: director@dominicastandards.org
  - Mara Abraham: mabraham@dominicastandards.org
- **WTO TBT contact(s)**: info@dominicastandards.org; sjohn@dominicastandards.org
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 13. ESwatini

*Status:*
- Website was well designed and informative, with online access to standards.
- SWASA has an MOU with South Africa's Bureau of Standards.

*Trends:*
- SWASA activity was relatively recent; in the past the country had adopted several South Africa national standards and some 68 SADC standards
- The work programme included adoption of 6 ISO and 3 regional standards.
- Regulations covered mainly labelling and marking for food, industrial and pharmaceutical imports. Labelling and pre-packaging regulations were being reviewed in order to harmonize them with SADC recommendations.

*Sales point:*
- **SWASA:** https://www.swasa.co.sz/; https://www.swasa.co.sz/contact.php
- **Key CSN contact(s):**
  - Sihle Busisiwe Zwane: sbzwane@swasa.co.sz
- **WTO TBT contact(s)**: mcit@gov.sz
- **Standards for Sale:** https://shop.swasa.online/
- **Standards Catalogue:** https://www.swasa.co.sz/standards.php

### 14. Fiji

*Status:*
- The standardization activity is supervised by the Department of Trade Measurement and National Standards (a division of Ministry of Commerce and Industry).

- The Standards Unit had signed a Memorandum of Understanding with Standards Australia International in 1998, which gave the Unit the opportunity to adopt and modify Australian Standards as Fiji Standards.

*Trends:*
- Technical regulations (10) has been adopted on adhoc bases by separate Ministries.
- The Central Food Board has issued food safety regulation based on CODEX standards.

*Sales point:*
- **DNTMS:** http://www.pasc.standards.org.au/
- **Key CSN contact(s):**
  - Ajeshni Lata: ajeshni.lata@govnet.gov.fj
- **WTO TBT contact(s)**: ssharma006@govnet.gov.fj
- **Standards for Sale:** https://dntms.isolutions.iso.org/sites/dntms-nws/home.html
- **Standards Catalogue:** TBC

### 15. The Gambia

*Status:*
- TGSB's standardization is subject to ECOWAS harmonization rules, which are based on WTO and ISO/IEC dispositions.

*Trends:*
- The DNSS indicated adoption of IS in the fields of agri-food, building and construction, mechanical/engineering, electrical/ electronical goods, consumer goods, transport, medical appliances... With the completion of the work programme, the Gambia would have achieved a harmonization rate of 65%.

*Sales point:*
- **TGSB:** https://tgsb.gm/
- **Key CSN contact(s):**
  - Ebrima Musa Jallow: emjallow2@gmail.com; emjallow@tgsb.gm
- **WTO TBT contact(s)**: icham@tgsb.gm
- **Standards for Sale:** TBC
- **Standards Catalogue:** https://tgsb.gm/standards/published-standards/

### 16. Ghana

*Status:*
- The Ghana Standards Catalogue and work programme were posted on the GSA web site.

*Trends:*
- Primarily the GSA adopts international standards, or standards from other countries when no IS are in place; they also develop local standards for indigenous products, such as for cassava chips or shea butter.
- The Ghana corpus had above 2,900 norms, of which 1,657 IS including 89 ITU standards and 4 OIML standards; in addition, a number of ASTM standards and EN had been adopted.
- The work programme had 484 new standards, of which 383 IS.
- Specific standards have been developed for low density polyethylene fill, wrappers and transit containers, for polystyrene boxes, for PVC bottles for oil, for jute sacks, for polypropylene woven sacks, for blow-moulded containers, and for paper sacks for cement.

*Sales point:*
- **GSA:** https://www.gsa.gov.gh/news/; https://www.gsa.gov.gh/contact/
- **Key CSN contact(s):**
  - Joyce Okoree: joyce.okoree@gsa.gov.gh
  - Andrew Lartey: andrew.lartey@gsa.gov.gh
- **WTO TBT contact(s)**: gsanep@gsa.gov.gh; jhammond@gsa.gov.gh
- **Standards for Sale:** https://gsa.isolutions.iso.org/sites/gsa-nws/home.html
- **Standards Catalogue:** https://www.gsa.gov.gh/resources/

### 17. Grenada

*Status:*
- GDBS is a member of CARICOM and CROSQ, the regional Standardization Organization.

*Trends:*
- The corpus included several regional standards (some of these may be based on IS)
- The standards collection had focus on agri-food products, on management system standards, and on consumer goods.
- Some 24 of the Grenada standards had been made mandatory, but only 2 of these are based on IS.

*Sales point:*
- **GDBS:** http://www.gdbs.gd/AboutUs.html; http://www.gdbs.gd/index.html
- **Key CSN contact(s):**
  - Lena Belgrave: lena.downes@spiceisle.com
- **WTO TBT contact(s)**: gdbs@spiceisle.com
- **Standards for Sale:** TBC
- **Standards Catalogue:** http://www.gdbs.gd/StandardsInfo.html

## 18. Guyana

*Status:*
- GNBS is under the Ministry of Industry.
- Guyana is a member of CARICOM and CROSQ, the regional Standardization Organization.

*Trends:*
- GNBS has been adopting CARICOM standards which could amount to about 10% of their corpus, and an increasing number of IS.
- GNBS has mandated 82 standards (of which 31 for electrical appliances in 2019); yet other regulated products are controlled by other agencies.

*Sales point:*
- **GNBS:** https://gnbsgy.org/about-us/; https://gnbsgy.org/contact/
- Key CSN contact(s):
  - Ramrattie Karan: rkaran@gnbsgy.org
  - Elton Patram: epatram@gnbsgy.org
- **WTO TBT contact(s)**: wto-tbt.enquiry@gnbsgy.org
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

## 19. India

*Trends:*

| Field of Activity | Nb. of Standards | Share |
|---|---|---|
| Food and Agriculture | 2,081 | 10% |
| Civil Engineering | 1,805 | 9% |
| Chemical | 1,819 | 9% |
| Electrotechnical &Electronics and IT | 3,476 | 17% |
| Mechanical & Engineering | 8,708 | 42% |
| Services | 1,578 | 8% |
| Textile Clothing & leather | 1,325 | 6% |
| ***All Activity Fields*** | 20,792 | 100% |

- Harmonization rate was relatively low altogether as less than 25% of the Indian corpus is aligned with IS. Among the 5,787 standards harmonized: 4,824 are identical, 601 are equivalent, and 362 were modified.

| Degree of Equivalence | ISO | IEC | ISO / IEC | IEEE | Others | Total | Share of IS |
|---|---|---|---|---|---|---|---|
| Identical under dual numbering | 2,509 | 791 | 152 | 1 | 264 | 3,717 | 83.3% |
| Identical under single numbering | 510 | 221 | 87 | 0 | 289 | 1,107 | |
| Modified/Technically Equivalent | 109 | 397 | 1 | 2 | 92 | 601 | 10.4% |
| Not Equivalent | 311 | 0 | 1 | 0 | 50 | 362 | 6.3% |
| ***Sub-total IS*** | 3,439 | 1,409 | 241 | 3 | 695 | 5,787 | |
| Indigenous | | | | | | 15,005 | |
| **Total Indian Stds published** | 3,439 | 1,409 | 241 | 3 | 695 | 20,792 | |

*Sales point:*
- **BIS:** https://bis.gov.in/
- **Key CSN contact(s):**
  - Roy Chowdhury: ird@bis.gov.in
- **WTO TBT contact(s)**: enquirypoint@bis.gov.in
- **Standards for Sale:** https://standardsbis.bsbedge.com/
- **Standards Catalogue:** TBC

## 20. Jamaica

*Status:*
- Jamaica is a member of the CARICOM and CROSQ, the regional Standardization Organization.

*Trends:*
- The work programme published to WTO included 108 work items, of which 89 new standards proposals (included in the above figures and calculation).
- Jamaica had progressively increased its alignment to regional and international standards, with her harmonization rate reaching 38%, or nearly 50% when considering alignment with ASTM and regional standards.
- The use of regional standards remained moderate; these form only 6.5% of the corpus.
- The harmonization rate was moderate, at 38%. The rate was higher for the fields of electrical standards (80%), mechanical (41%), and services such as quality, environment, testing, labelling, tourism (52%).
- Jamaica has a limited number of standards in the chemical, electrical, textile/footwear, and civil engineering fields; in addition, harmonization in such fields is low, apart for electrical field where IEC standards are used largely.
- 150 standards have been made mandatory for high risk goods, labelling, civil engineering..., only 10 of these are based on IS.
- BJS has progressively relinquished all standards 'enforcement' activities to another adhoc entity (National Regulatory Compliance Authority), yet remains responsible for monitoring about thirty compulsory standards.

| FIELD / Type of IS | AGRIFOOD | SERVICES | MECHANICAL | CHEMICAL | ELECTRICAL | CIVIL ENG. | TEXTILE | ALL FIELDS |
|---|---|---|---|---|---|---|---|---|
| ISO | 22 | 63 | 54 | | 1 | 20 | 25 | 185 |
| ISO/IEC | | 22 | | | | | | 22 |
| IEC | | 1 | | | 60 | | | 61 |
| CODEX | 16 | | | | | | | 16 |
| CRS/CCS | 36 | 5 | 5 | 2 | | | | 48 |
| EN | | | 5 | | | | | 5 |
| ASTM/ANSI | 5 | | 12 | | 4 | 10 | | 31 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Indigenous | 103 | 77 | 55 | 41 | 11 | 44 | 48 | 379 |
| ALL Standards | **182** | **168** | **131** | **43** | **76** | **74** | **73** | **747** |
| % Harmonization | *21%* | *51%* | *41%* | *0%* | *80%* | *27%* | *34%* | *38%* |

*Sales point:*
- **BSJ:** https://www.bsj.org.jm/
- **Key CSN contact(s):**
  - Hopeton Heron: HHeron@bsj.org.jm
  - Julia Douett: JDouett@bsj.org.jm
- **WTO TBT contact(s)**: tbtenquirypoint@bsj.org.jm
- **Standards for Sale:** https://shop.bsj.org.jm/
- **Standards Catalogue:** https://www.bsj.org.jm/technical-information-centre

## 21. Kenya

*Status:*
-
- Kenya is a member of the East Africa Community.

*Trends:*
- Besides ISO and IEC, KEBS has adopted OIML, AOAC, ATSM standards, as well as regional standard from EAC and ARSO.
- The harmonization rate was 58%, up to 65% when considering regional standards. The rates were higher in the fields of services, mechanical engineering, electrical goods, and lower in agri-food, chemical and textile fields.
- The work programme included 183 new standards, of which 80 adopted from ISO, two from IEC and one Codex, with 39 additional EAS.

| FIELD<br>Type STD | AGRIFOOD | SERVICES | MECHANICAL | ELECTRICAL | CHEMICAL | CIVIL ENGINEERING | TEXTILE | ALL FIELDS |
|---|---|---|---|---|---|---|---|---|
| ISO | 188 | 570 | 619 | 79 | 203 | 150 | 164 | 1,770 |
| ISO/IEC | 0 | 36 | 13 | 471 | 0 | 0 | 2 | 522 |
| IEC | 0 | 11 | 5 | 191 | 4 | 1 | 1 | 209 |
| CODEX | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| EAS/ARS | 112 | 5 | 38 | 28 | 20 | 17 | 19 | 219 |
| EN | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 27 |
| ASTM/ANSI | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| Indigenous | 171 | 178 | 194 | 328 | 171 | 332 | 314 | 1,517 |
| **ALL TYPES** | **491** | **800** | **896** | **1,097** | **383** | **500** | **500** | **4,667** |
| *% Harmonized* | *42%* | *77%* | *71%* | *68%* | *42%* | *30%* | *33%* | *58%* |

*Sales point:*
- **KEBS:** https://www.kebs.org/
- **Key CSN contact(s):**
  - Samson Ombok: omboks@kebs.org
- **WTO TBT contact(s)**: info@kebs.org
- **Standards for Sale:** https://webstore.kebs.org/
- **Standards Catalogue:** http://onlinecatalogue.kebs.org/

## 22. Kiribati

*Status:*

- Kiribati didn't have an NSB. The Quality Division under Ministry of Commerce Industry and Cooperatives is responsible for standard-related activities.
- Kiribati has been using only a few IS in the fisheries, health regulations, and construction sector (Australia codes).

*Trends:*

- Kiribati has developed a National Quality policy and seeks to strengthen their standardization and metrology capacities.

*Sales point:*

- **NSB:** NA
- **Key CSN contact(s):**
  - Ruuta Tiira: rtiira@commerce.gov.ki
- **WTO TBT contact(s)**: quality@commerce.gov.ki
- **Standards for Sale:** NA
- **Standards Catalogue:** NA

## 23. Lesotho

*Status:*

- The Lesotho Standards Institute was created in 2018.

*Sales point:*

- **LSI:** NA
- **Key CSN contact(s):**
  - Molebatsi Rabolinyane: rabolinyanem@yahoo.com
- **WTO TBT contact(s)**: dsqa.gov@gmail.com
- **Standards for Sale:** NA
- **Standards Catalogue:** NA

## 24. Malawi

*Status:*

- The MBS' website was found to be well organized and informative

*Trends:*

- The repartition by fields shows the prevalence of mechanical, engineering and services standards.

| Field of Activity | Nb. of Standards | Share |
|---|---|---|
| Food and Agriculture | 215 | 17% |
| Chemical & Textile | 161 | 13% |
| Electrotechnical &Electronics and IT | 170 | 13.5% |
| Mechanical & Engineering | 438 | 35% |
| Services | 272 | 21.5% |
| ***All Activity Fields*** | 1,256 | 100% |

  - MBS has adopted 237 IS (ISO: 52, ISO/IEC: 15, IEC: 170)
- The harmonization rate was thus calculated at 19%
- All the 170 standards in the field of electrical & electronics have been adopted from the IEC.

*Sales point:*

- **MBS:** http://mbsmw.org/
- **Key CSN contact(s):**
  - Willy Harrison Muyila: willymuyila@mbsmw.org
  - Fred E. Sikwese: fsikwese@mbsmw.org
- **WTO TBT contact(s)**: mbs@mbsmw.org

- **Standards for Sale:** TBC
- **Standards Catalogue:** http://mbsmw.org/wp-content/uploads/2019/05/2019-Catalogue-of-Malawi-Standards.pdf

## 25. Malaysia

*Status:*
- The website was found well designed and fully informative on the standardization and work programme.
- The harmonization rate and detail of standards by activities was available on the website.

*Trends:*
- The work program was published on the WTO website. It included 120 work items, of which 13 adoptions, 5 IS identical and 8 IS modified.
- Malaysia has adopted a large number of IS, mostly equivalent or identical; but 301 IS were adopted with modifications (11% of adoptions).
- The harmonization rate was calculated at 55%. The rate was very high (above 80%) in electrical/electronic & IT fields, and high in the fields of engineering and services. In contrast, agricultural standards were found less aligned, at 17%. This could be explained by the country's early exports shift from primary sector products to industry and services products; with nowadays agricultural exports limited to a few commodities (palm oil, rubber, and timber).

| | **Identical** | **Modified** | **Indigenous/ Adapted** | **All** | ***% Harmonized*** |
|---|---|---|---|---|---|
| Agriculture | 104 | 10 | 566 | 680 | 17% |
| Chemicals and Materials | 563 | 122 | 673 | 1,358 | 50% |
| Mechanical Engineering | 798 | 84 | 402 | 1,284 | 69% |
| Buildings, Construction and Civil Engineering | 182 | 18 | 168 | 368 | 54% |
| Electrical & Electronics, and ITC | 424 | 33 | 104 | 561 | 81% |
| Services | 390 | 31 | 313 | 734 | 57% |
| Textiles and Apparels | 15 | 3 | 18 | 36 | 50% |
| **All Fields** | **2,476** | **301** | **2,244** | **5,021** | **55%** |

*Sales point:*
- **JSM:** http://www.jsm.gov.my/
- **Key CSN contact(s):**
  - Hussain Mizzar: mizzar@jsm.gov.my
- **WTO TBT contact(s)**: tbt@sirim.my
- **Standards for Sale:** http://www.jsm.gov.my/buy-international-standards
- **Standards Catalogue:** NA

## 26. Malta

*Status:*
- Malta, as an EU member, is bound to adopt CEN standards.

*Trends:*
- Malta has 4,418 international standards from ISO and IEC, included in a corpus of some 56,000 European standards.

*Sales point:*
- **MCCAA:** https://mccaa.org.mt/Section/Content?contentId=1272
- **Key CSN contact(s):**
  - Helga Pizzuto: hpizzuto@mccaa.org.mt
- **WTO TBT contact(s)**: info@mccaa.org.mt
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 27. Mauritius

*Status:*

- The standards catalogue was not yet online, the standards are accessible on the Technical committees' sections.

*Trends:*

- To be noted, the significant proportion (35%) of IS related to metrology, management systems, safety, conformity assessment. This could be related to the adoption of a national quality policy and support programmes, which have been implemented in Mauritius recently. Standard development is seen as a priority, in the perspective of developing the tourism sector (hospitality for seniors)
- Another important group is that of electrical standards (18%).
- Mauritius has mandated 54 of their standards, and 41 of these regulations are based on IS.

*Sales point:*

- **MSB:** http://msb.intnet.mu/English/Pages/default.aspx
- **Key CSN contact(s):**
  - Shyam Kumar Gujadhur: gujadhursk@gmail.com
- **WTO TBT contact(s)**: msb@intnet.mu; kramsarrun@msb.intnet.mu
- **Standards for Sale:** TBC
- **Standards Catalogue:** http://msb.intnet.mu/English/Standards/Pages/Mauritian-Standards-Catalogue.aspx

### 28. Mozambique

*Status:*

- The catalogue and work programme 2018-2020 were available on the INNOQ website.

*Sales point:*

- **INNOQ:** http://www.innoq.gov.mz/
- **Key CSN contact(s):**
  - Alfredo Sitoe: asitoe1961@gmail.com
  - Joaquim Paulo Branco: jbranco13@gmail.com
- **WTO TBT contact(s)**: mmaxlhuza@gmail.com; marcia.maxlhuza@gov.mz
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 29. Namibia

*Status:*

- Namibia has a quality policy and strong focus on standard development and conformity assessment

*Trends:*

- Most standards have been adopted from external references (South Africa, SADC, or ISO, IEC, and OIML).

*Sales point:*

- **NSI:** https://www.nsi.com.na/
- **Key CSN contact(s):**
  - Lahya Hambinga: hambingal@nsi.com.na
- **WTO TBT contact(s)**: uundjenu@nsi.com.na
- **Standards for Sale:** https://www.nsi.com.na/shop/
- **Standards Catalogue:** TBC

### 30. Nauru

*Status:*

- No standard body was in place.

*Trends:*

- Based on secondary data, Nauru is using AS/NZS 3000:2018 'Wiring rules'; as well as Australia's 'drinking water rules' as guidance for their water facility.

*Sales point:*

- **NSB:** NA
- **Key CSN contact(s):**
  - Masau Detudamo: detudamo@gmail.com
- **WTO TBT contact(s)**: NA
- **Standards for Sale:** NA
- **Standards Catalogue:** NA

### 31. New Zealand

*Status:*

- The website allowed accessing to the work programme, as well as searching standards online based on the ICS.

*Trends:*

- Close collaboration with Australia on standards development; the corpus has both joint (ANZ) standards and New Zealand standards.
- New Zealand has not adopted any Codex standards.
- Among the 1,236 IS adopted, 224 have been modified, and 42 are not equivalent.

*Sales point:*

- **NZSO:** https://www.standards.govt.nz/
- **Key CSN contact(s):**
  - Steve Lowes: Steve.Lowes@mbie.govt.nz
  - Silvie Zantza: Silvie.Zantza@mbie.govt.nz
- **WTO TBT contact(s)**: wto@standards.govt.nz
- **Standards for Sale:** https://shop.standards.govt.nz/catalog/ics/
- **Standards Catalogue:** https://www.standards.govt.nz/our-services/online-library/catalogues/

### 32. Nigeria

*Status:*

- The consultant retrieved a previous version of the catalogue (2005), as well as an official publication on standards adopted (dates ranging 2006-2017). There were 141 international standards adopted, and none for electrical products.

*Sales point:*

- **SON:** https://son.gov.ng/
- **Key CSN contact(s):**
  - Fashina Rilwan Bola: rilwanfash@gmail.com; bola.fashina@son.gov.ng
- **WTO TBT contact(s)**: chioma.chudi-anaukwu@son.gov.ng; chivivlinjet@yahoo.com
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 33. Pakistan

*Trends:*

- Pakistan has an impressive list of standards, with a high alignment rate. Out of some 21,800 texts, 6,132 have been developed locally, and the rest were adopted from ISO, IEC, or ASTM.

*Sales point:*

- **PSQCA:** http://updated.psqca.com.pk/
- **Key CSN contact(s):**
  - Obaid Khan: obaidkhan@psqca.com.pk
- **WTO TBT contact(s)**: tbt@psqca.com.pk; wto.nep@psqca.com.pk; info@wto-pakistan.org
- **Standards for Sale:** https://psqca.isolutions.iso.org/sites/psqca-nws/home.html
- **Standards Catalogue:** TBC

### 34. Papua New Guinea

*Gaps:*

- The major source for standardization reference was Australia, and 432 Australian standards were incorporated in the corpus. The work programme included 2 adoptions (ISO, ISO/IEC), 4 development, and 6 revisions

*Sales point:*
- **NISIT:** https://www.nisit.gov.pg/home
- **Key CSN contact(s):**
  - Victor Gabi: Victor.Gabi@nisit.gov.pg
- **WTO TBT contact(s)**: pngnisit@nisit.gov.pg
- **Standards for Sale:** NA
- **Standards Catalogue:** NA

### 35. Rwanda

*Status:*
- The RSB website was found modern, well maintained, and offering online access to the standard catalogue (registration requested)
- Rwanda is member of East African Community

*Trends:*
- Rwanda has adopted 1,556 international standards. Most adoptions were from ISO (1,150) and IEC (383), only 21 from Codex. The corpus included as well 198 East African Standards, 26 ARSO standards, and 26 OIML and 46 AOAC texts.
- 262 standards have been made mandatory, of which 77 based on IS (list dated 2013)

*Sales point:*
- **RSB:** https://www.rsb.gov.rw/index.php?id=8
- **Key CSN contact(s):**
  - Dr. Raymond Murenzi: raymond.murenzi@rsb.gov.rw
- **WTO TBT contact(s)**: info@rsb.gov.rw; johnny.uwimana@rsb.gov.rw
- **Standards for Sale:** TBC
- **Standards Catalogue:** https://www.rsb.gov.rw/fileadmin/user_upload/files/pdf/new_stds/RSB_Catalogue.pdf

### 36. Saint Kitts and Nevis

*Status:*
- The website was up to date and provided sufficient information.
- St Kitts & Nevis is a member of the CARICOM and CROSQ, the regional Standardization Organization.

*Trends:*
- Only 5 standards, one draft standard, and one draft regulation were shown on the site.
- The work programme included 2 ISO and 2 CARICOM regional standard adoptions, plus 1 standard on energy efficiency.

*Sales point:*
- **SKNBS:** https://www.sknbs.org/#
- **Key CSN contact(s):**
  - Stuart LaPlace: stuart.laplace@gov.kn
- **WTO TBT contact(s)**: sknbs@gov.kn; tbt@gov.kn
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 37. Saint Lucia

*Status:*
- St Lucia is a member of the CARICOM and CROSQ, the regional Standardization Organization.

*Trends:*
- Recent update and adoption of significant number of IS: the alignment reaches 66%.
- Significant number of regional standards adopted 'by default'.

*Sales point:*
- **SLBS:** https://www.slbs.org/

- **Key CSN contact(s):**
  - Verne Emmanuel: v.emmanuel@slbs.org
- **WTO TBT contact(s)**: info@slbs.org; slbs@candw.lc
- **Standards for Sale:** https://www.slbs.org/shop/
- **Standards Catalogue:** TBC

### 38. Saint Vincent and the Grenadines

*Status:*
- The SVG bureau of standards has been attached under Ministry of Agriculture in 2018.
- SVG is a member of the CARICOM and CROSQ, the regional Standardization Organization.

*Trends:*
- Most standards were specification for agri-food products, labelling, and a narrow list of consumers products and services (tourism).
- 3 Codex adoptions, no other IS used; 8 standards adopted from Regional ones.
- The work programme of the bureau includes 26 standards for revision, and 48 for adoption or development.

*Sales point:*
- **SVGBS:** http://www.svgbs.gov.vc/bos/
- **Key CSN contact(s):**
  - Ezra D. Ledger: deledger@gov.vc
  - Jennifer Douglas-Bullock: jdouglas@gov.vc
- **WTO TBT contact(s)**: info.svgbs@gov.vc
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 39. Samoa

*Status:*
- The development and implementation of technical regulations was within the remit of various ministries and agencies, such as the MCIL and the Office of the Regulator for the telecommunications, electricity, broadcasting and postal sectors.
- The regulatory and standard-setting bodies pursue policies based on international standards, and the Government is committed to making use of standards developed by international standard-setting bodies as the basis for its national technical regulation
- The NSB was created recently under the Min of Trade; the 'National Samoa Standards' is hosted within a unit that includes Fair Trading, Codex, Metrology & Competition/ Focal Points for SPS & TBT.

*Trends:*
- 6 standards were noted being used in the different Ministries, 4 as technical regulations. One IS was adopted from Codex.

*Sales point:*
- **SVGBS:** http://www.svgbs.gov.vc/bos/
- **Key CSN contact(s):**
  - Ezra D. Ledger: deledger@gov.vc
  - Jennifer Douglas-Bullock: jdouglas@gov.vc
- **WTO TBT contact(s)**: info.svgbs@gov.vc
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 40. Seychelles

*Status:*
- The SBS operates a management system compliant with ISO/IEC9001

*Trends:*
- The country has developed a limited number of standards but has adopted largely international texts. However, there are very few IEC standards in the corpus.

*Sales point:*
- **SBS:** https://sbs.sc/

- **Key CSN contact(s):**
  - Elvis Nicette: mcistid-sbs@email.sc
- **WTO TBT contact(s)**: enquirywto@finance.gov.sc
- **Standards for Sale:** https://sbs.sc/sale-of-standards/
- **Standards Catalogue:** https://sbs.sc/standards-catalogue/

### 41. Sierra Leone

*Trends:*

- The total was noted as 75 texts, they were mostly for agri-food products (36) and petroleum (22), and then a few for building materials (7), and management systems (8).
- 76% of the corpus are adopted IS

*Sales point:*

- **SLSB:** http://standards-sl.org
- **Key CSN contact(s):**
  - Prof. Dr Thomas B. R. Yormah: tom_yormah@yahoo.com
- **WTO TBT contact(s)**: tom_yormah@yahoo.com
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 42. Singapore

*Status:*

- The NSB is organised as a private entity

*Gaps:*

- Online access to standards is available only in the premises of the documentation center, there was no external online access. It is assumed that most if not all the Singapore standards are equivalent to IS

*Sales point:*

- **Enterprise SG:** https://www.enterprisesg.gov.sg/
- **Key CSN contact(s):**
  - Michelle Khoo michelle_khoo@enterprisesg.gov.sg
- **WTO TBT contact(s)**: PPD_Enquiry@enterprisesg.gov.sg
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 43. Solomon Islands

*Status:*

- No NSB, the Ministry of Foreign Affairs and Trade would be the point of contact for standard-related matters. Contact and request for information were sent to MFAT.

*Trends:*

- Some legal text refers to CODEX standards (the Coconut and copra export regulation), similarly the regulations for the Safe food Act include (yet without reference) some elements that are in CODEX standards such as GMP, HACCP and MRL for PCB.

*Sales point:*

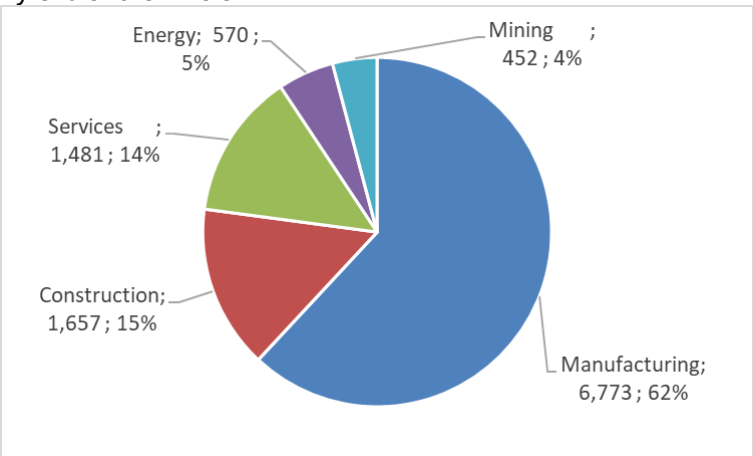
- **NSB:** NA
- **Key CSN contact(s):**
  - Jenny Barile: JBarile@mfaet.gov.sb
- **WTO TBT contact(s)**: NA
- **Standards for Sale:** NA
- **Standards Catalogue:** NA

### 44. South Africa

*Status:*

- The SABS is actively involved in standardization and is leading the SADC regional committee on standards.

*Trends:*
- South Africa has a large number of standards and has adopted international standards (all identical) in the fields of engineering, electricity, telecommunications.
- Harmonization is fairly high at 55%; to note, all adoptions are identical.
- The engineering and electrical sectors made the largest part of the corpus, with food and agriculture standards taking only 5% of the whole.




*1 - Distribution of South African Standards (web site values)*

*Sales point:*
- **SABS:** https://www.sabs.co.za/
- **Key CSN contact(s):**
  - Dr Sadhvir Bissoon sadhvir.bissoon@sabs.co.za
- **WTO TBT contact(s)**: wto@sabs.co.za; dineo.hexana@sabs.co.za
- **Standards for Sale:** https://store.sabs.co.za/
- **Standards Catalogue:** https://www.sabs.co.za/Standard-Sales/index.asp

## 45. Sri Lanka

*Status:*
- The NSB was active and lists were available on-line.

*Trends:*
- The harmonization rate was very high, Sri Lanka has been an early adopter of ISO standards (from the eighties' onward).

*Sales point:*
- **SLSI:** https://www.slsi.lk/index.php?lang=en
- **Key CSN contact(s):**
  - Dr. Siddhika Senaratna: dg@slsi.lk; sidsenara@gmail.com
- **WTO TBT contact(s)**: dg@slsi.lk; fortrade@doc.gov.lk
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

## 46. Tanzania

*Status:*
- The TSB seemed very active and home of the East Africa Community (regional standards).

*Trends:*
- The work programme 2020 has 433 proposed new standards, among these 180 based on IS.
- Tanzania has developed a significant number of standards (~2,400), while adopting relatively few IS (harmonization rate was 29%). ISO standards were noted in the field of engineering, chemicals, water, and agri-food products, and IEC standards for electrical goods.
- Almost half of the corpus (46%) has been made compulsory; only 20% of these regulations are based on IS adoptions.

*Sales point:*
- **TBS:** https://www.tbs.go.tz/
- **Key CSN contact(s):**
  - Stephanie Kaaya: stephanie.kaaya@tbs.go.tz
- **WTO TBT contact(s)**: nep@tbs.go.tz; bahati.samillani@tbs.go.tz
- **Standards for Sale:** https://standards.tbs.go.tz/
- **Standards Catalogue:** https://www.tbs.go.tz/pages/standards-catalogue

### 47. Tonga

*Status:*
- Tonga has no NSB. The Ministry of Foreign Affairs and Trade is a focal point and could provide some information.

*Trends:*
- Australian standards have been used in regulation for Aviation, building codes; and international CODEX or WHO standards for the food safety and drinking water regulations (Min. of Health). The Department of Fisheries has a regulation for fisheries products that includes some aspects of the international hygiene and safety standards (GMP-HACCP).

*Sales point:*
- **NSB:** NA
- **Key CSN contact(s):**
  - Esterlina Alipate: esterlinaa@mted.gov.to; esterlina.alipate@gmail.com
- **WTO TBT contact(s)**: ceo@mted.gov.to; paulines@mted.gov.to
- **Standards for Sale:** NA
- **Standards Catalogue:** NA

### 48. Trinidad and Tobago

*Status:*
- Standards were accessible online with a good (modern and responsive) website.
- Trinidad & Tobago is a member of CARICOM and of the CROSQ.

*Trends:*
- The country is fairly harmonized, with higher rate in engineering and construction sectors.
- On a total of 364 standards, 142 were nationally developed and 222 adopted; among the latter 63 with modification (not equivalent).
- Trinidad has also adopted, with or without modifications, a range of regional and national standards: BS, CSA, UL, OHSAS, NFPA, CRS, ASTM, ICC…
- In term of sectors, the corpus is dominated by construction, mechanical engineering, electrical and textiles.
- The regulatory regime is moderate with 87 technical regulations adopted, of which more than half (47) based on IS.

*Sales point:*
- **TTBS:** https://gottbs.com/
- **Key CSN contact(s):**
  - Nadita Ramachala: nadita.ramachala@ttbs.org.tt
- **WTO TBT contact(s)**: enquiry.point@ttbs.org.tt
- **Standards for Sale:** https://gottbs.com/shop/#.YD_37ej7Q2w
- **Standards Catalogue:** NA

### 49. Tuvalu

*Status:*
- Tuvalu has no NSB, Min of Foreign Affairs and Trade would be the focal point
- Information was derived from the EIF Tier1 project.

*Sales point:*
- **NSB:** NA

- **Key CSN contact(s):**
  - Pulaalofa Saulo Haulagi:pulahaulagi@gmail.com
- **WTO TBT contact(s)**: NA
- **Standards for Sale:** NA
- **Standards Catalogue:** NA

### 50. Uganda

*Status:*

- Web access is quite efficient.
- Uganda is a member of the East Africa Community.

*Trends:*

| (based on catalogue) | Total | Mandatory | ISO | ISO/IEC | IEC | CODEX | EAS |
|---|---|---|---|---|---|---|---|
| Food-agriculture (27%) | 991 | 440 | 621 | 0 | 0 | 122 | 276 |
| Engineering (33%) | 1215 | 592 | 561 | 58 | 311 | | 72 |
| Chemical & Consumer Products (28%) | 1016 | 389 | 350 | 0 | 0 | 0 | 161 |
| Management & Services (11%) | 400 | 0 | 294 | 34 | 0 | 0 | 0 |

- The overall harmonization rate is high (63%); the rate is lower for the chemical and consumer products group standards (34%). Management and service standards are aligned at 83%, and agri-food and engineering at around 75%.
- The country has mandated a very high number of standards; no less than about 1,420 standards or codes are compulsory; 77% of these are based on IS
- Uganda has adopted 509 regional (EAC) standards.

*Sales point:*

- **UNBS:** https://www.unbs.go.ug/
- **Key CSN contact(s):**
  - Johnson Ssubi: johnson.ssubi@unbs.go.ug
  - Enoch Mutumba: enochmutumba@gmail.com
- **WTO TBT contact(s)**: info@unbs.go.ug; george.opiyo@unbs.go.ug; george.lanyuru@hotmail.com
- **Standards for Sale:** https://webstore.unbs.go.ug/
- **Standards Catalogue:** https://unbs.go.ug/content.php?src=information-resource-center&pg=content

### 51. United Kingdom

- Established in 1901, BSI was the world's first national standards body
- 90 offices in 193 countries. 4,600 members of staff.
- 63,000 current or draft standards available on BSOL

- **BSI:** www.bsigoup.com
- **Key CSN contact(s):**
  - Ben Hedley: ben.hedley@bsigroup.com
- **WTO TBT contact(s)**: TBTEnquiriesUK@trade.gov.uk
- **Standards for Sale:** https://shop.bsigroup.com/
- **Standards Catalogue:** https://bsol.bsigroup.com

*Sales point:*
- **BSI:** https://www.bsigroup.com/en-GB/
- **Key CSN contact(s):**
  - Ben Hedley: ben.hedley@bsigroup.com
  - Peter Sissons: peter.sissons@bsigroup.com
- **WTO TBT contact(s)**: TBTEnquiriesUK@trade.gov.uk
- **Standards for Sale:** https://shop.bsigroup.com/?_ga=2.186073961.1748789805.1614805762-2134661026.1576509543
- **Standards Catalogue:** TBC

### 52. Vanuatu -N/A

*Status:*
- VBS is recent and as such, Vanuatu has no national standards yet.
- VBS is under the Ministry of Tourism, Trade, Commerce, Industry and Ni-Vanuatu Business.

*Gaps:*
- There were no published standards, and no repository; although a list of subsidiary legislation is available (some text may refer to international standards).
- VBS has no work programme
- Standardization activity is not formally organized (no TC, no resource); Vanuatu has yet to adopt the Code of Good Standardization Practice.

*Trends:*
- Laws and regulation might contain a few references to IS; however, very few IS (OIE, Codex…) have been used, through references in legal texts such as for Cocoa, meat, dairy…
- The National Building Code is based on Australian standards.

*Sales point:*
- **VBS:** https://vbs.gov.vu/
- **Key CSN contact(s):**
  - Ruth Amos ramos@vanuatu.gov.vu
- **WTO TBT contact(s)**: ramos@vanuatu.gov.vu
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

### 53. Zambia

*Status:*
- The NSB was responsive.
- The standardization activity

*Gaps:*
- The ZABS has no web-based access to standards; only the draft standards are shown for discussion;
- The Work programme was not available on-line
- The Catalogue was forwarded upon request. It is arranged in alphanumerical list, but entries are not classified by TC themes or according to ICS. The regional and international adoptions are presented separately.

*Trends:*
- Zambia has a high level of harmonization; it has adopted about 2,400 regional or international standards. IS were from ITU & ETSI (128), IEC & IEEE (564), ISO (937), and CODEX (21). Besides, the Zambian corpus includes standards from the EU (96), from ASTM and ANSI (640), as well as 250 regional standards (SADC or COMESA).
- Zambia has developed only 60 mandatory standards (of which only 2 based on IS).

*Sales point:*

- **ZABS:** https://www.zabs.org.zm/
- **Key CSN contact(s):**
  - Margaret Lwenje Lungu: mlungu@zabs.org.zm
- **WTO TBT contact(s)**: zabs@zamnet.zm; info@zabs.org.zm
- **Standards for Sale:** TBC
- **Standards Catalogue:** TBC

## 6. Recommendations

R1. Information on standards and work programme is not easily accessible or up-to-date. The CSN has an opportunity to seek regular updates from members, and to present their standards related information (see R5.) on the portal.

R2. The gaps assessment indicated a wide disparity in the levels of quality in the standards list, and in the accessibility of the lists for users. The CSN may consider the opportunity to provide 1) guidance about the catalogue format, and 2) support for some NSB to re-formatting their catalogue.

R3. Similarly, the web-based pages and search functions are not user-friendly and poorly designed. It may be worth assessing the need and feasibility for a unified software solution, allowing the NSB to provide online useful information in a user-friendly manner.

R4. Regulatory regime is an important information for assessing trade and investment opportunities. However, there is scarce info on regulations on the NSB pages. The CSN has an opportunity to develop a simple metrics showing the stringency of regulation (number of TR vs total standard; rate of TR based on IS), for adoption and regular updating by members.

R5. A simple benchmarking index could be developed featuring four or five key criteria on standards-related information, such as e.g. harmonization, regulatory regime, rate of progress (new text and revision vs. total corpus), etc

R6. Regional standards organization are playing a key role in certain regions, in particular in East Africa and in the Caribbean zone. The CNS should engage with these and use those organizations as relay to reach out and elicit info from the countries.

R7. Four countries have no NSB. It would be useful for the CSN project to engage with these, and to assist developing the bases for a standardization function. There might be opportunities to fund such efforts via the EIF facility in certain countries, or via regional support programmes (UNIDO, the EU, or PTB).

R8. In terms of support, there would be needs for assisting some members developing standards and reviewing their corpus to replace aged entries by IS. The CSM may consider such support, preferably through the regional organizations, for the smaller countries (Pacific, Caribbean area) and/or for those who have very low harmonization rates.

## Appendix 1 - Service Proposal

**PROPOSAL FOR**
**AN ASSESSMENT OF THE ADOPTION OF INTERNATIONAL STANDARDS**
**IN COMMONWEALTH COUNTRIES**

**UNDERSTANDING OF THE ACTIVITY**

The inclusion of trade partners in global value chains is accelerated by the use of international standards. Importers and exporters may build market strategies based on the type of standards used in respective countries, for their products. However, the information shared on international standards portals e.g. of ISO, WTO, and ITC… is not sufficiently detailed in that regard.

The CSN project deems thus necessary to identify accurately, which international standards have been adopted in each Commonwealth country.

The objectives of the assignment are then: i) to identify accurately which ISO and IEC standards have been adopted by each of the 53 Commonwealth countries, ii) to identify and document any trends or obstacles in the adoption of IS, analyze info gathering gaps and recommend a methodology/timeframe of how it can be obtained.

It is also noted that the disparity of performance between the standard bodies (NSB) and other communication issues would constraint this exercise, and that a flexible and adaptative methodology should be used.

Finally, it would be useful _depending on feasibility/accessibility_ to assess the formal adoption or informal use of the standards from Codex Alimentarius Commission, World Organization for Animal Health (OIE), and International Plant Protection Convention (IPPC), since these are referred in the SPS and TBT agreements.

**OUTLINE OF METHODS**

The consultant will seek to optimize the effort, by adapting the information gathering to each country's situation.

**First step: desk research**, classification of countries.

- Gather basic info from the CSN project, cross-checked by information on ISO, WTO, ITC sites
  ➔ This will result in a first stratification
- Refining the results above, through initial quick appraisals by the NSB focal persons, and contacting regional experts from network.
  ➔ This will result in the final classification in three groups: A) information verified and online, B) information partly verifiable/ online, and C) information deemed unreliable, outdated, or unverifiable.

Then, the activities for data gathering will start.

**Second Step: data gathering**

- for group A, downloading data or email campaign for querying NSBs, and then data coding and processing.
- Reaching out NSBs in Group B via phone/ emails; while in parallel seeking info from regional bodies, Development Partners, experts in networks, etc.
- Reaching out NSBs in group C extensively through phone interviews

To note, the above processes would be run in parallel, with focus on groups B and C that are likely to require more time.

Finally, data will be tabulated and relevant info summarized.

**Third step: data treatment**

- Processing and summarizing data
- Sending back to each NSBs focal person for validation
- Analyzing and presentation of findings.

**Timeline**

**DELIVERABLES**
The deliverables would include:

- Results on a spreadsheet with lists of ISO-IEC and other international standards adopted
- Written summary of NSBs status, and gap analysis
- Negatively salient cases and issues encountered
- Updated list of NSB contacts and resource persons
- Brief final mission report.

**RESOURCES**

The resources needed for the above tasks are estimated as follows:

- Work time: 185 hours, rounded to 23 work days

| Tasks | Load |
|---|---|
| 1. initial info search & cross checking | 8 hours |
| 2. initial appraisal | 16 hours |
| 3. stratification of countries | 4 hours |
| 4. outreach group A (10 countries) | 10 hours |
| 5. outreach group B (28 countries) | 32 hours |
| 6. outreach group C (15 countries) | 30 hours |
| 7. tabulating/ processing data | 24 hours |
| 8. cross checking and validation | 12 hours |
| 9. analysis and summaries | 18 hours |
| 10. report writing | 16 hours |
| 11. admin tasks | 8 hours |
| 12. unforeseen/unallocated | 7 hours |
| Total | 185 hours |

- Communication costs (phone and web)

# Appendix 2 - Updated Status of the NSB

| Country | NSB | PHONE | First Contact | Email address |
|---|---|---|---|---|
| Antigua and Barbuda | ABBS | +1 268 562 4011; F 268 562 0094 | Mrs Dianne Lalla- | dianne.rodrigues@antigua.gov.ag |
| Australia | SA | +61 2 9237 6000 | Ms Karen Batt | karen.batt@standards.org.au |
| Bahamas, The | BBSQ | +1 242 328 5071; 397 9900; | Mrs Renae Ferguson- | renaefbufford@bahamas.gov.bs; |
| Bangladesh | BSTI | +880 2 8870275 | Mr Md. Muazzem Hossain, | dg@bsti.gov.bd |
| Barbados | BNSI | +1 246 4263870 | Fabian Scott | fscott@bnsi.com.bb. |
| Belize | BBS | +501 822 0446 ; 47 | Mr Jose E. Trejo, Director | jose.trejo@bbs.gov.bz |
| Botswana | BOBS | +267 390 3200 | Mrs Masego B. Marobela, | marobela@bobstandards.bw |
| Brunei Darussalam | MEMI-NSC | +673 2384488 ext 1475 | Hjh Noorlela Binti DPS Hj | noorlela.rahman@mofe.gov.bn |
| Cameroon | ANOR | +23722012197 ; +23777708326 ; | Emmanuel Chesami | emchesami@gmail.com |
| Canada | SCC | +1 613 238 32 22 | Mkabi Walcott | mkabi.walcott@scc.ca |
| Cyprus | CYS | +357 22 41 14 11 | Dr. Athina Panayiotou | apanayiotou@cycert.org.cy; |
| Dominica | DBOS | +1 767 275 3017 | Mr La Rocque, Director | director@dominicastandards.org |
| Eswatini (Swaziland) | SWASA | +268 2518 4610 | Ms Sihle Busisiwe Zwane, | sbzwane@swasa.co.sz |
| Fiji | MITT | +679 330 5411 | Ajeshni Lata | ajeshni.lata@govnet.gov.fj ; lajesh |
| Gambia, The | TGSB | +220 9977035; +220 4464210; | Mr Muhammed Njie | mnjie@tgsb.gm |
| Ghana | GSA | +233 244381351; +233 30250065 | George Anti | ganti@gsa.gov.gh |
| Grenada | GDBS | + 473 4405886 ; +473 440 6783 | Lena Belgrave | lena.downes@spiceisle.com |
| Guyana | GNBS | +592 219 0062 | Ramrattie Karan Deputy | rkaran@gnbsgy.org |
| India | BIS | +91 23231082; +91 11 23230131; | Shri Pramod Khumar | dg@bis.gov.in |
| Jamaica | BSJ | +1 876 6181534 ; +1 876 6324275 | Hopeton Heron, Exec. Dir. | Hheron@bsj.org.jm |
| Kenya | KEBS | +254 20 6948000 | Samson Ombok | omboks@kebs.org |
| Kiribati | MCIC | +686 75126156 Ext 203 | Ms Ruuta Tiira | rtiira@commerce.gov.ki |
| Lesotho | LSI | +266 22324939 | Mr. Molebatsi | rabolinyanem@yahoo.com |
| Malawi | MBS | +265 1 870 488 | Fred E. Sikwese | fsikwese@mbsmw.org |
| Malaysia | DSM | +603 8008 2900 | Mr. Shaharul Sadri Alwi | shaharul@jsm.gov.my |
| Malta | MCCAA | +356 21 24 24 20; +356 2395 | Helga Pizzuto | hpizzuto@mccaa.org.mt |
| Mauritius | MSB | +230 4333648 | Rashida Nanhuck | RNanhuck@msb.intnet.mu |
| Mozambique | INNOQ | +258 21303822; +258 21344600; | Alfredo Sitoe | asitoe1961@gmail.com |
| Namibia | NSI | +264 61386409; +264 812432044 | Jekonia Haufiku | HaufikuJ@nsi.com.na |
| Nauru | *No NSB* | +674 557 3040 | Ms. Christiana Detenamo | christiana.detenamo@gmail.com |
| New Zealand | MBIE-SNZ | +64 4 498 59 90 | Ms. Carmen Mak | Carmen.Mak@mbie.govt.nz |
| Nigeria | SON | +234 1 27 08 247 | Mr. Osita Anthony | osita.aboloma@son.gov.ng |
| Pakistan | PSQCA | +9221 9926 1620; --1840; ---1870; | Mr. Abdul Aleem Memon, | abdulaleem7891@yahoo.com; |
| Papua New Guinea | NISIT | +675 323 18 52 | Mr. Victor Gabi | Victor.Gabi@nisit.gov.pg |
| Rwanda | RSB | +250 252 582945 | Dr Raymond Murenzi | raymond.murenzi@rsb.gov.rw |
| St Kitts and Nevis | SKNBS | +1 869 465 5279; 467 1498 ext | Stuart LaPlace, Director | stuart.laplace@gov.kn; sknbs@go |
| St Lucia | SLBS | +1 758 453 00 49 | Emmanuel Verne, director | v.emmanuel@slbs.org |
| Samoa | NSS | +685 20441; 20443 | Fepulea'i Roger Toleafoa, | mpal@mcil.gov.ws;Roger.toleafoa |
| Seychelles | SBS | 4380400 Ext: 425 | Mr Andy Ally, CEO | dgsbs@email.sc; sbsorg@seychel |
| Sierra Leone | SLSB | +232 7833 4134 ; 7788 0028; | Prof. Dr Thomas B. R. | tom_yormah@yahoo.com |
| Singapore | EnterpriseS | | Sabrina Anthony | Sabrina_Anthony@enterprisesg.g |
| Solomon islands | *No NSB* | +677 21250-53 | George Tuti | George.Tuti@mfaet.gov.sb |
| South Africa | SABS | 012 428 7911 | Dr Boni Mehlomakulu, | Boni.Mehlomakulu@sabs.co.za |
| Sri Lanka | SLSI | +94 11 2671567; +94 11 2671572, | Dr. Siddhika Senaratna | dg@slsi.lk; |
| St Vincent and the | SVGBS | +1 784 457 80 92 | Mr. Ezra D. Ledger | deledger@gov.vc |
| Tanzania, United | TBS | +255 22 245 0298; +255 22 245 | Ms. Stephanie Kaaya | stephanie.kaaya@tbs.go.tz |
| Tonga | *No NSB* | +676 23688; +676 7400104-5 | Pauline Siasau | paulines@mcctil.gov.to |
| Trinidad and Tobago | TTBS | +1 868 662 88 27 ext2041 | Nadita Ramachala | nadita.ramachala@ttbs.org.tt |
| Tuvalu | *No NSB* | +688 20102; F20820 | Darryl Ikbal, EIF | icedarryl.euny@gmail.com |
| Uganda | UNBS | +256 414505995; +256 | Dr. Ben Manyindo, Exec. | ben.manyindo@unbs.go.ug |
| United Kingdom | BSI | | Ben Hedley | ben.hedley@bsigroup.com |
| Vanuatu | VBS | +678 25978 | Ruth Amos | ramos@vanuatu.gov.vu |
| Zambia | ZABS | +260 211 231385 ; +260 211 227 | Margaret Lwenje Lungu, | mlungu@zabs.org.zm |

## Appendix 3 - Status of Adoptions

| NSB country | ISO | IEC | ISO/IEC | CAC | EN | ASTM/ ANSI | Other | IS TOTAL | STD TOTAL | Rate IS |
|---|---|---|---|---|---|---|---|---|---|---|
| **Antigua and Barbuda** | | 5 | 4 | | | | 39 | 9 | 57 | 16% |
| **Australia** | | | | | | | | 0 | 7,106 | 0% |
| **Bahamas, The** | 14 | 0 | | | | | | 14 | 25 | 56% |
| **Bangladesh** | 1,075 | 165 | 18 | 78 | 136 | 4 | 59 | 1,535 | 2,177 | 71% |
| **Barbados** | 56 | 15 | | 52 | | | 66 | 123 | 330 | 37% |
| **Belize** | 15 | 0 | | | | | 24 | 15 | 47 | 32% |
| *Botswana with work program* | *853* | *233* | *7* | *2* | *26* | *2* | *59* | *1,095* | *1,280* | 86% |
| **Brunei Darussalam** | | 74 | | | | | | 74 | 150 | 49% |
| *Cameroon with work program* | 972 | 190 | 77 | 342 | 157 | | | 1,581 | 2,247 | 70% |
| **Canada** | 1,725 | 1,512 | 1,272 | 0 | 0 | 207 | | 4,509 | 5,171 | 87% |
| **Cyprus** | 2 | | | | 22,752 | | 11 | 2 | 22,783 | 0% |
| **Dominica** | | | | | | | | 0 | 26 | 0% |
| **eSwatini (Swaziland)** | 51 | 13 | 7 | 22 | 1 | | 71 | 93 | 275 | 34% |
| **Fiji** | 5 | 1 | 0 | 0 | 0 | 0 | | 6 | 72 | 8% |
| *Ghana with work program* | *1,279* | *312* | *13* | *53* | *24* | *157* | *16* | *1,657* | *2,927* | 57% |
| **Grenada** | 1 | | | 2 | | | 9 | 3 | 148 | 2% |
| **Guyana** | 114 | 137 | 19 | | | 72 | 36 | 270 | 573 | 47% |
| **India** | 3,439 | 1,409 | 241 | | | | 698 | 5,089 | 20,792 | 24% |
| **Jamaica** | 185 | 61 | 22 | 16 | 5 | 31 | 48 | 284 | 747 | 38% |
| *Kenya with work programme* | *1,890* | *211* | *522* | *21* | *31* | | *258* | *2,644* | *4,467* | 59% |
| **Kiribati** | | | | 2 | 1 | | 10 | 2 | 15 | 13% |
| **Lesotho** | | | | | | | | | 0 | 0% |
| **Malawi** | 52 | 170 | 15 | 0 | | | 235 | 237 | 1,256 | 19% |
| **Malaysia** | 1,827 | 699 | 115 | 0 | 129 | 6 | | 2,641 | 5,021 | 53% |
| **Malta** | 4,008 | 395 | 15 | | | | | 4,418 | 55,989 | 8% |
| **Mauritius** | 374 | 100 | 86 | 4 | 78 | 0 | | 564 | 820 | 69% |
| **Mozambique** | 112 | 39 | 21 | 6 | 12 | 0 | 1 | 178 | 743 | 24% |
| **Namibia** | 28 | 79 | | | 7 | | 25 | 107 | 177 | 60% |
| **Nauru** | | | | | | | 2 | 0 | 0 | 0% |
| **New Zealand** | 478 | 624 | 134 | | | | | 1,236 | 3,093 | 40% |
| **Nigeria** | 81 | | 59 | 1 | | | | 141 | 824 | 17% |
| **Pakistan** | 9,264 | 6,346 | | 36 | | 764 | 12 | 15,646 | 21,778 | 72% |
| **Papua New Guinea** | 26 | 12 | | 0 | | 20 | 490 | 38 | 573 | 7% |
| *Rwanda with work program* | *1,149* | *383* | *3* | *21* | | *35* | *249* | *1,556* | *2,556* | 61% |
| **Rwanda*** | 999 | 377 | | 20 | | 32 | 467 | 1,396 | 2,260 | 62% |
| **Saint Kitts and Nevis** | 1 | 0 | | | | | 5 | 1 | 6 | 17% |
| **Saint Lucia** | 282 | 31 | | 0 | | 12 | 12 | 313 | 474 | 66% |
| **Saint Vincent and the Grenadines** | | 0 | | 3 | | | 8 | 3 | 83 | 4% |
| **Samoa** | | | | 1 | | | 1 | 1 | 6 | 17% |
| **Seychelles** | 119 | 3 | 59 | 39 | 8 | | 28 | 220 | 310 | 71% |
| **Sierra Leone** | 27 | 27 | 3 | | | | | 57 | 75 | 76% |
| **Singapore** | 108 | 74 | 45 | | 118 | | | 227 | 780 | 29% |
| **Solomon islands** | | | | | | | | | | 0% |
| **South Africa** | 1,705 | 1,024 | 361 | 0 | 355 | | 149 | 3,090 | 5,591 | 55% |
| **Sri Lanka** | 1,199 | 191 | | 0 | 125 | 21 | | 1,390 | 1,536 | 90% |
| **Tanzania, United Republic of** | 297 | 198 | 1 | 3 | 4 | 16 | 11 | 499 | 1,959 | 25% |
| *Tanzania, with work program* | 428 | 235 | 8 | 8 | | | | 679 | 2,382 | 29% |
| **The Gambia** | 12 | 33 | 3 | 23 | | 6 | 8 | 71 | 101 | 70% |
| *The Gambia with work program* | *99* | *49* | *14* | *36* | *0* | *16* | *14* | *198* | *303* | 65% |
| **Tonga** | | | | | | | | 0 | | 0% |
| **Trinidad and Tobago** | 156 | 20 | 1 | 0 | 1 | 9 | 45 | 177 | 362 | 49% |
| **Tuvalu** | | | | | | | | 0 | | 0% |
| *Uganda with work Prgme* | *1,704* | *255* | *114* | *150* | | *22* | *592* | *2,223* | *4,324* | 51% |
| **Uganda*** | 1,826 | 311 | 112 | 149 | 4 | 16 | 576 | 2,398 | 3,781 | 63% |
| **UK** | | | | | | | | 0 | 53,362 | 0% |
| **Vanuatu** | | | | 3 | | | | 3 | | 0% |
| **Zambia** | 937 | 564 | 3 | 21 | 96 | 640 | 138 | 2,399 | 3,384 | 71% |