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ITU Forum on Conformance and Interoperability for the Americas and Caribbean region

12-15 June 2012, Brasilia, Brazil

UNIDO's Standard, Metrology, Testing and Quality (SMTQ) Services to Developing Countries

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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



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Presentation Overview

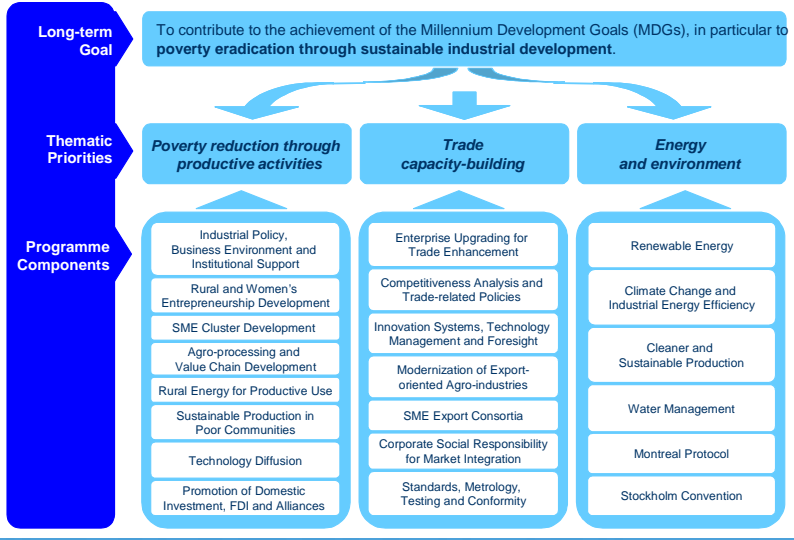
- ❖ Global Trade Opportunities & Challenges
- ❖ Role of Standards in Global value Chains
- ❖ Quality Infrastructure for Conformance
- ❖ UNIDO Quality Infrastructure Projects
- ❖ TCB – Global Forum & Partnerships
- ❖ UNIDO Supported Training Centres
- ❖ Cooperation Proposals



Poverty Reduction through Productive Activities • Trade Capacity Building • Energy and Environment



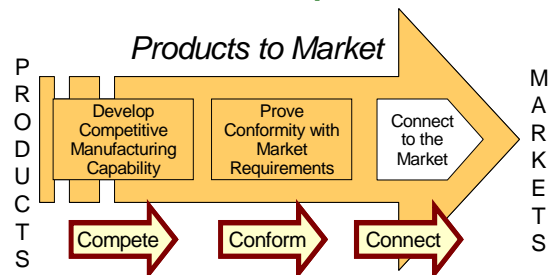
UNIDO: UN Specialized Agency with three thematic areas:



Poverty Reduction through Productive Activities • Trade Capacity Building • Energy and Environment



Succeeding Global Trade Participation: UNIDO 3Cs Approach



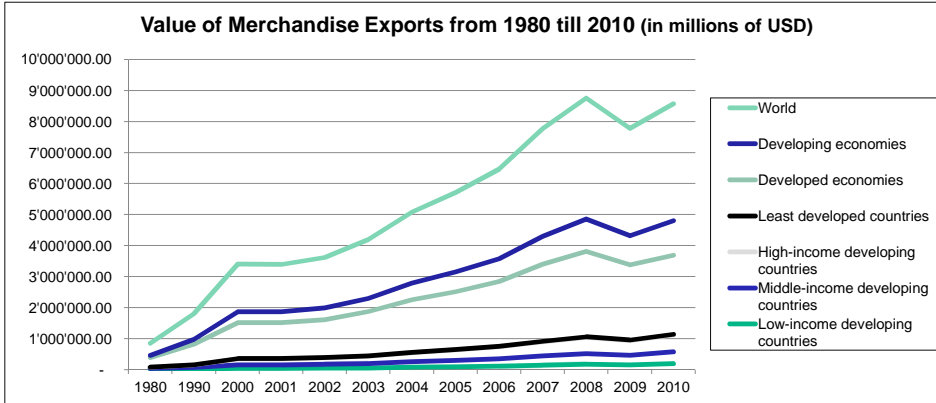
...by upgrading supply capacities and standards infrastructures

- **Selecting sectors having best potential for export**
- **Supporting Value addition** (Technology, Investment)
- **Promoting SME development** (Cluster, Export Consortia)
- **Supporting Standards and Quality compliance**
- **Ensuring Sustainable industrial development** (Energy, Environment)

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World's Merchandise Exports



Source: UNCTADSTAT

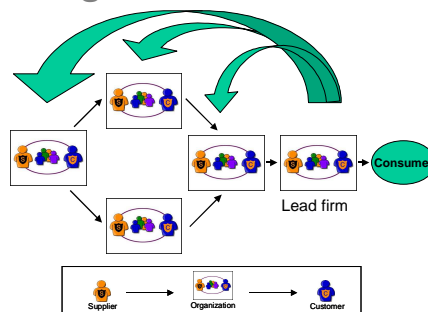
Over 80% of merchandise exports - Industrial Goods



Global Value Chains: Defining Market Access



To promote market access, UNIDO supports international accreditation of laboratories.



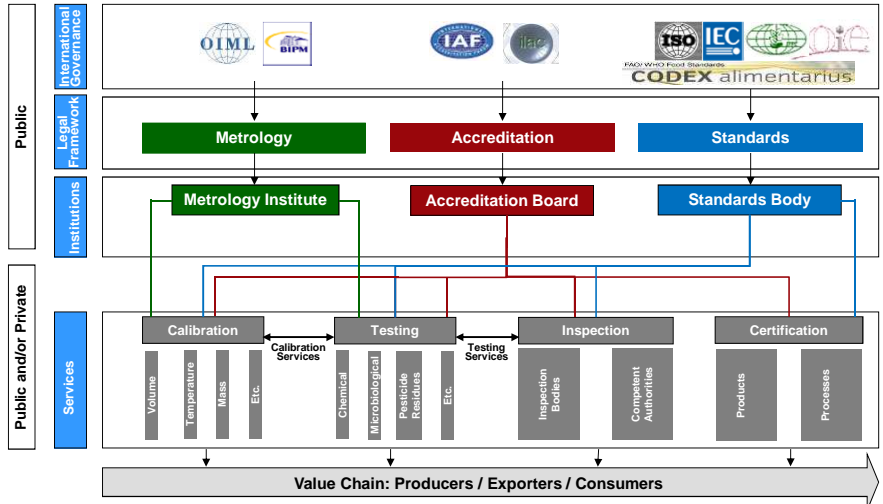
Auditing the Value Chain – Compliance to Standards

- ✓ Product/Process standards (ISO/IEC)
- ✓ Quality Standards (ISO 9001)
- ✓ Environment Standards (ISO 14001)
- ✓ Food Safety Standards (ISO 22000)
- ✓ Labour Social Standards (SA 8000)
- ✓ Safety Standards (OSHAS)
- ✓ Testing (ISO/IEC 17025)
- ✓ Calibration
- ✓ Traceability (Farm-to-Fork)
- ✓ Private Standards (GlobalGAP)



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Quality Assurance Infrastructure



Source: UNIDO

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TBT/SPS capacity-building demands linkages to International Standards & Conformity Organizations

**Andrew J. Wallard, Director BIPM,
Kandeh K. Yumkella, DG, UNIDO
Alan Johnston, President, CIML**

MoU signed in Vienna, Austria on 03 December 2008

**Kandeh K. Yumkella, Director-General, UNIDO
Bob Steele, Secretary-General of ISO**

ISO & UNIDO reinforce partnership for sustainable development

MoU signed on 23 June 2009 in Vienna

MOU signed at the Joint ILAC/IAF General Assembly in Cape Town on 10 October 2004

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UNIDO's Quality Infrastructure Tech. Assistance: \$110 Mn (2009-2012)

European Union		Bangladesh, Cameroon, Cote D'Ivoire, Malawi, Nepal, Pakistan, ECOWAS, UEMOA
Norway		East Africa, Mekong, Sri Lanka, Bangladesh; SAARC, Zambia, Uganda, GLOBAL FORUM
Switzerland		Vietnam, Tanzania, Ghana, Mozambique, Tanzania, Lebanon, Egypt
Italy		Egypt, Iraq
Sweden		Trade Trust Fund, AIDMO
Poland		Ukraine, Moldova
Korea		Mongolia, South -South Metrology Centre
India		South-South Lab Testing Centre, Timor-Leste
Finland		Trade Trust Fund
Spain		China, Egypt
China		China (Food safety)



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UNIDO Support to Laboratory Accreditation

Action	Regions
1. Laboratory design/ modification	SAARC MEKONG UEMOA EAC LAC
2. Provision of Equipment/ Reference material	
3. Training in house and Overseas	
4. Supporting quality manual development	
5. Supporting PT participation	
6. International accreditation	
7. Business planning/marketing	

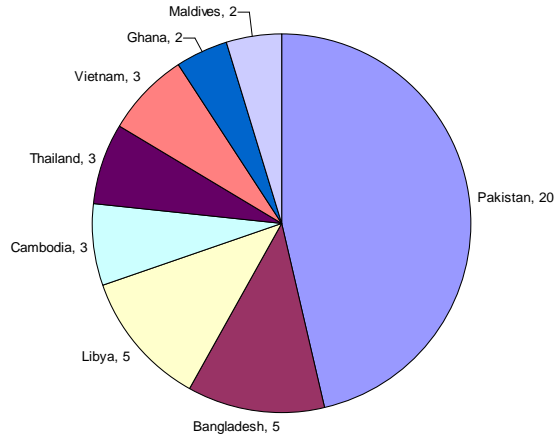


No. Countries: 25
Budget: EUR 20 mn

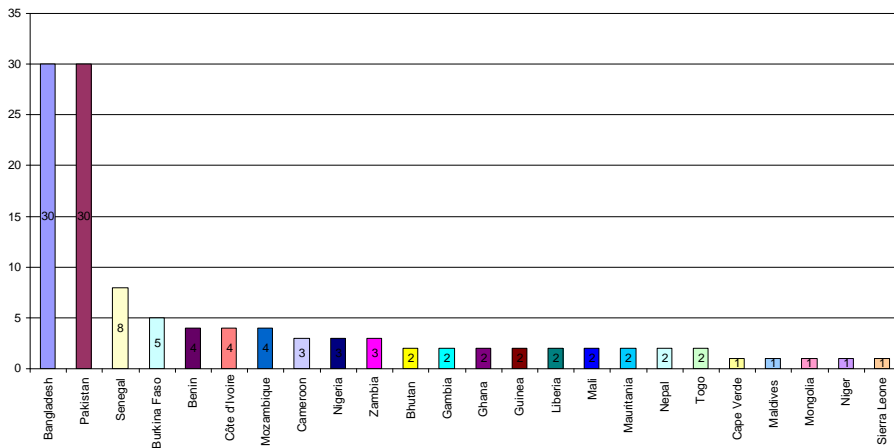
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List of testing and calibration labs supported by UNIDO towards accreditation (ISO 17025)



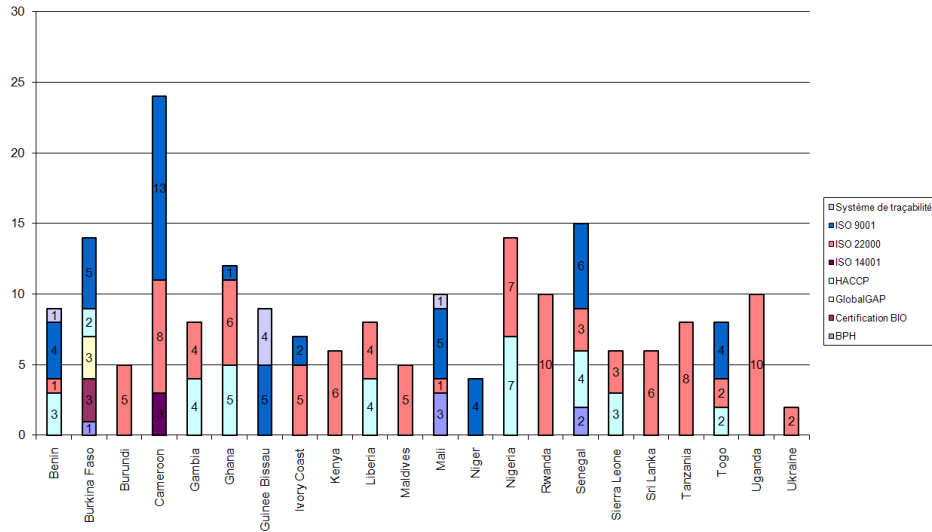
List of testing and calibration labs supported by UNIDO With the intention to be accredited





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UNIDO Support to the enterprises with the intention to be certified



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UNIDO Food Safety China (Fujian) Project (ISO 22000 Awarding Ceremony), 08 August 2011, Xiamen




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Cross Frontier Accreditations completed via UNIDO Projects

8 laboratories accredited in SRI LANKA through SWEDAC (Sweden) 

Microbiology (2); Chemical Testing (2); Garment/Textile (1);
Metrology (1); Rubber testing (1); Food Testing (1)

1 metrology laboratory accredited in TANZANIA through SANAS



19 public sector laboratories accredited in PAKISTAN through NA

Microbiology (6); Chemical Testing (6); Leather/Textile (5); Metrology (1); Electrical (1)

5 laboratories accredited in VIETNAM through NA (Norway)

Microbiology (2); Chemical Testing (1); Metrology (2);



5 laboratories accredited in LIBYA through DAP (Germany)

Building Material testing Laboratory (1); Metallurgy and Surface Protection Laboratory (1);
Food Testing Laboratory (1); Chemical Testing Laboratory (1); Textile Testing Laboratory (1)



2 laboratories accredited in CAMBODIA through NATA & BOA (Vietnam)

Rubber testing Laboratory (1); Micro-biology (1)



3 Testing laboratories accredited in BSTI, BANGLADESH through NABL

(Textile, food and building materials)

Cambodia Product Certification Scheme accredited by NA

Bangladesh Standards and Testing Institute (BSTI) Management System

Certification Body by NA



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UNIDO Support to Accreditation Bodies

- Legal framework setting the body
- Training of Assessors
- Support to running PT schemes
- Joint accreditation with MRA holder
- Examples:
 - Vietnam BOA
 - PNAC- Pakistan
 - UEMOA
 - EAC
 - SLAB- Sri Lanka
 - BAB- Bangladesh
 - MNAS - Mongolia



AFGHANISTAN
BANGLADESH
BHUTAN
CAMBODIA
Lao PDR



MALDIVES
NEPAL
PAKISTAN
SRI LANKA
VIETNAM



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UNIDO's Assistance to Metrology Building National Measurement Capabilities

ASIA

Sri Lanka	Nepal	Maldives
Viet Nam	Pakistan	Bhutan
Lao PDR	Afghanistan	Iraq
Cambodia	Bangladesh	



AFRICA

Mozambique
Zambia
Ivory Coast
Ghana
EAC
Kenya
Uganda
Tanzania
Rwanda
Burundi

ECOWAS (West Africa)

Non-UEMOA	UEMOA
Cape Verde	Benin
The Gambia	Burkina Faso
Ghana	Ivory Coast
Guinea	Guinea-Bissau
Liberia	Mali
Mauritania	Senegal
Nigeria	Togo
Sierra Leone	

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UNIDO-BIPM-Norad Support to AFRIMETS

Support institutional development of AFRIMETS:

1. Strategic Roadmap development
2. Pan-African Metrology School, Feb 2011
3. Strengthen technical structures (twinning with other RMOs)
4. Developing pool of assessors
5. Creation of Key and Supplementary comparisons for priority areas



Budget: € 630,000



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UNIDO TCB Programmes (TA combining Supply-side & Conformity)

BANGLADESH QUALITY SUPPORT PROGRAMME (BQSP)

Implemented by UNIDO and ITC

3-year (2006-09) programme: EUR 10 million

- National Quality Infrastructure Development
- Fisheries Sector Quality and value addition
- Textile Sector Competitiveness Development

Phase 1



BETTER WORK AND STANDARDS PROGRAMME (BEST)

Implemented by UNIDO and GTZ

5-year (2010-14) programme: EUR 16.9 million for Quality, Fisheries and Textile sectors of Bangladesh

Objective of BEST is to contribute to economic growth and poverty reduction by supporting Bangladesh in taking advantage of global market opportunities

Phase 2



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UNIDO TCB Programmes (TA combining Supply-side & Conformity)



Pakistan TRADE RELATED TECHNICAL ASSISTANCE PROGRAMME

Budget: € 5.0 million Donor: EU

Barrier to Trade Survey
Study on SPS Compliance for Exports

Standards (PSQCA)

- Standards development
- Certification Body (Systems)
- Consumer affairs
- Product certification

Metrology (IPSC)

- Lab upgrading, international recognition

Product Testing (MFD, PCSIR, etc): Fisheries, Food, Leather, Textile

- Lab upgrading, PT participation
- Implementation of PT schemes

Accreditation (NACC)

- Organizational strengthening, international recognition
- National accreditation scheme
- Training of auditors
- Setting-up of PT schemes

Quality/Hygiene (Private sector, FPCCI, etc.) Fish/foc

- Management systems
- Good practices
- Compliance with market requirements
- Pilot certifications HACCP, ISO 9001, 14001, SA 8000)
- Pilot traceability systems



19 Labs Accredited by Norwegian Accreditation

Phase 2: €10 Mn

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Metrology & Accreditation Projects in Cambodia & Lao PDR



Trade Capacity Building in the Mekong Delta Countries of Cambodia, Lao PDR and Vietnam, through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ)

Budget: US\$ 2.5 million

Donor: Norway



- ✓ Metrology legal framework put in place
- ✓ Metrology laboratories developed
- ✓ Chemical & microbiology labs developed
- ✓ Equipment supplied
- ✓ Staff trained

Cambodia and Lao PDR



Legal metrology launched by UNIDO

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Metrology & Accreditation Projects in Bangladesh, Bhutan, Maldives and Nepal



MARKET ACCESS AND TRADE FACILITATION SUPPORT FOR SOUTH ASIAN LDCs, THROUGH STRENGTHENING INSTITUTIONAL AND NATIONAL CAPACITIES RELATED TO STANDARDS, METROLOGY, TESTING AND QUALITY

Budget: US\$ 3.5 million

Donor: Norway, India



- Upgrade the required technical infrastructure for standards development and harmonization; metrology and testing laboratories required by the selected sectors; standards for labeling and accreditation of laboratories and quality systems
- National capacities for setting up HACCP, ISO9001, ISO14001 schemes at enterprise level, as well as the capacity of national certification bodies to assess the systems developed
- SAARC led regional accreditation body and a regional calibration service developed and launched

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Metrology & Accreditation Projects in Latin America and the Caribbean



Haiti

- Quality infrastructure development through supporting metrology development for Haiti legal metrology entity within the Ministry of Trade and Industry
- Estimated to start in 2nd half of 2012
- Budget: € 1 million



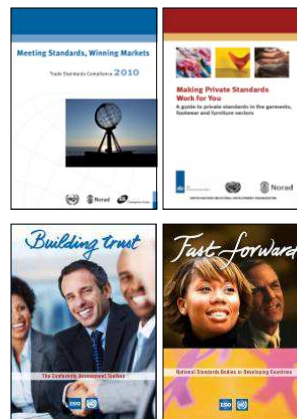
Ecuador (pipeline)

- Traceability programme for the agro-industrial sector in Ecuador with special emphasis on cocoa
- Laboratory support activities:
 - Establishing and strengthening of the reference laboratories
 - Forming a network of public and private testing laboratories at the national level
- Testing scopes aims to cover those that have become increasingly important in the light of the new EU legislation



TCB – Global Forum & Partnerships

- ✓ Laboratory Network Portal (Labnet)
- ✓ Trade Standards Compliance Report (2010)
- ✓ ISO - UNIDO publications
- ✓ South-South Training Centres
- ✓ ISO/IEC 17025 – A Practical Guide



LABNETWORK

www.labnetwork.org

In Partnership With :

LABNETWORK

A UNIDO & WAITRO Initiative
Concept to Realization

Key Resources: Chemical Lab | Metrology Lab | Microbiology Lab

Home
About Labnetwork
International Trade
Laboratory Accreditation
Testing Areas
Success stories
Reference Materials
Proficiency Testing
Sustainability
Training

Profile
LABNETWORK is an online platform set up by UNIDO and WAITRO to disseminate information of value to testing and calibration laboratories from all fields of science, and to those seeking their services.
Users of LABNETWORK will be able to contact each other either directly or through LABNETWORK's message board, where they can post their problems to be answered by experts in their field, those in UNIDO, or by other members of LABNETWORK.

LabNetwork: vision
Provide access to and disseminate information related to testing laboratories
Share experiences about testing laboratory capabilities, management, design, development and maintenance
Provide an avenue for promoting and sourcing laboratories and their services
Facilitate the dissemination of information to industry and trade on testing and calibration, including product-specific information

News
UNIDO-WAITRO-INTERMATIONAL Conference EMB (WUJCSME) 2009
International Conference on Electric Beams Radiation
JAWP UNIDO-WAITRO-INDO-WHO

Events Calendar
Sep-2009
M T W T F S S
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30

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The site benefits:

- **Laboratories** (environmental, metrology, testing, chemical, microbiology, textile, etc.)
- **Professional laboratory staff** in developing countries
- **Exporters** from developing countries
- **Industry**, in particular **small and medium-sized enterprises**, seeking metrology and calibration laboratories in developing countries
- **Emerging accreditation/certification bodies**
- Laboratories with the potential to obtain accreditation
- **Academia and researchers**

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www.unido.org

NORAD
DIREKTORATET FOR UTVIKLINGSSAMARBEID
NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION

Trade Standards Compliance Report 2010

Project Objective:
Design and establish an innovative annual publication on compliance challenges and advocating related technical assistance

MEETING STANDARDS, WINNING MARKETS
Trade Standards Compliance 2010

UNIDO UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
NORAD DIREKTORATET FOR UTVIKLINGSSAMARBEID NORWEGIAN AGENCY FOR DEVELOPMENT COOPERATION
IDS Institute of Development Studies

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Making Private Standards Work for You

A guide to private standards for suppliers in the garments, footwear and furniture sectors.

- Funded by Norad & UNIDO
- Launched in October 2010 in cooperation with Norad and CBI Netherlands
- Further cooperation with CBI, Netherlands to develop training modules based on the Guide

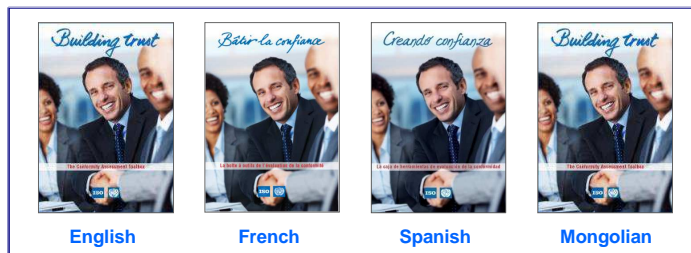
Contents

- The landscape of Private Standards in the apparel, footwear and furniture sectors
- Buyer Codes of conducts
- Strategies for developing country suppliers
- Trends



Building trust – The Conformity Assessment Toolbox

Published in 4 languages



- **A comprehensive, user-friendly handbook covering all aspects of conformity assessment and its role in international trade**
- **Useful for business managers, regulators and consumer representatives**
- **Websites:**

UNIDO Institute for Capacity Building: <http://institute.unido.org/tradecapacitybuilding.html>

International Organization for Standardization: http://www.iso.org/iso/publications_and_products/conformity_assessment_.htm



ISO 9001 – Its relevance and impact in Asian Developing Economies

Based on Project TE/RAS/09/003

A survey covering quality management system development, certification, accreditation and economic benefits



- **Summary:**
Clear empirical economic benefits to the effective implementation and accredited certification of quality management systems in the manufacturing sectors of the Asian developing countries
- **Dissemination** (as of 11th June 2012)
 - 800 copies distributed through UNIDO, ISO and IAF
 - Internet dissemination through UNIDO and ISO/TC176 Subcommittee 2
 - UNIDO website:
<http://www.unido.org/index.php?id=7681>



UNIDO Supported Training Centres

❖ UNIDO-VIMTA South-South Training Facility for Testing Laboratories



Hyderabad, India

Target beneficiaries:

- Testing laboratories (Chemical, Food, Microbiology, Pharmaceutical)
- National Standards bodies
- Quality control laboratories for industries
- Quality control labs of export houses
- Import product testing laboratories

No. of trainees:

100 during 2010-2011

Funding:

UCSSIC (India) - USD 273,460.-
 Vimta Labs Ltd. - USD 100,000.- (in kind)
 UNIDO - USD 156,000.-

Launched on 20. Sep. 2010

❖ UNIDO-KRISS Training Programme in Metrology



Daejeon, Rep. of Korea

Target beneficiaries:

- National metrology institutes
- Calibration laboratories

Parameters covered:

- Mass, length, volume, pressure, temperature, force and electrical

No. of trainees:

60 during 2011-2012

Funding:

Govt. of RoK - € 113,000.-
 KRISS - € 100,000.- (in kind)
 UNIDO - € 100,000.-

Launched on 26. Sep. 2011

❖ UNIDO-China Food Quality Safety and Testing Training Facility



Dali, China

Target beneficiaries:

- Milk and Dairy products testing labs

Parameters covered:

- Melamine in dairy products,
- Arsenic content in food and water
- Linoleic acid and DHA in milk formula
- Enterobacter sakazakii in milk formula
- Sudan Red dye in food products

No. of trainees:

40 international + 50 national during 2011-2013

Funding:

Dali Prefecture Govt: USD 200,000.-
 Dali Compre. Tech & Insp. Centre
 USD 100,000 (in-kind)
 UNIDO USD100,000.-

Launched on 21. Nov 2011



International organizations supporting conformity assessment activities

Organization	Main activity	Standards-writing organization?	Develops conformity assessment standards?	Conformity assessment activities
	Industrial development and trade capacity building	NO ❌	NO ❌	Provides technical assistance to developing countries, aimed primarily at developing conformity assessment infrastructures.
	International standards - general	YES ✅	YES ✅	Only by developing standards that are used for conformity assessment.
	International standards – specific to the electrotechnical sector	YES ✅	YES ✅	Carries out conformity assessment through the IECEE, IECEx and IECQ Schemes.
	United Nations specialized agency for information and communication technologies	YES ✅	Limited to development of test suites for its own standards	Encourages vendors to participate in ITU's conformity and interoperability programme, based on ISO/IEC assessment or self-assessment standards, and Self-Declarations of Conformity (SDOC).
	Global harmonization of legal metrology procedures	Develops International Recommendations which are considered international standards in the context of the WTO TBT Agreement.	NO ❌	Provides support and legal basis to conformity assessment infrastructure. Also produced a guide to the specifics of using ISO/IEC 17025 in legal metrology, and is in the process of developing other similar guides.
	Provides basis for a single, coherent system of measurements throughout the world, traceable to the International System of Units (SI)	NO ❌	NO ❌	Underpins uniformity of measurement worldwide, a necessary pre-requisite for effective conformity assessment.
	Global harmonization of accreditation practices for management systems, products, services, personnel and other similar programmes	NO ❌	Develops mandatory, guidance and informative documents for accreditation bodies	Carries out peer assessments of accreditation body members.
	Global harmonization of accreditation practices for laboratories, inspection bodies and other similar programmes	NO ❌	Develops mandatory, guidance and informative documents for accreditation bodies	Carries out peer assessments of accreditation body members.



Co-operation Proposal

- **Develop a roadmap on joint conformity assessment supporting testing laboratories development in collaboration with international partners**
- **Pursue joint technical assistance in developing such testing laboratories in pilot countries (Latin America)**



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***Thank You
for your attention!***

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