



**International Organization
for Standardization**

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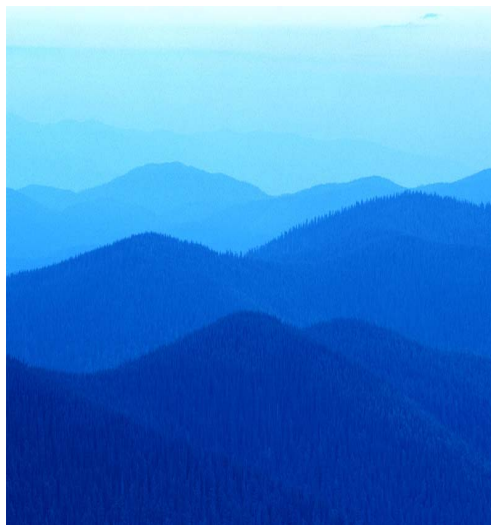
**Responding to
the global and related challenges of
climate change, energy, water and nutrition**

Presentation by Alan Bryden
ISO Secretary-General

**International Conference on Standards
in Response to Global Challenges
Cairo - 24-25 November 2008**

Outline of presentation

- The ISO system
- Climate change
- Energy efficiency
- Water
- Nutrition
- ISO's related international networking



The ISO system

157 national members

*98% of the world economy
97% of the world population*

At February 2008

Collection of 17 041
ISO Standards

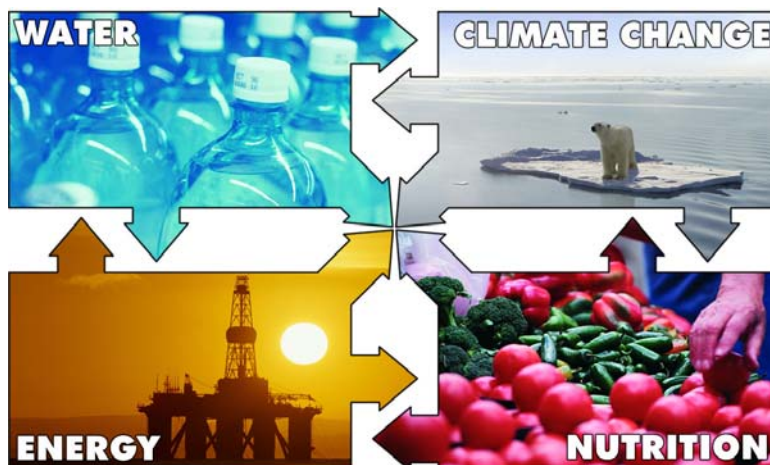
1 105 standards
produced in 2007

- IT tools
- Standards development procedures
- Consensus building
- Dissemination

186 active TCs
3 000 technical
bodies
50 000 experts

Central
Secretariat
in Geneva
153 staff

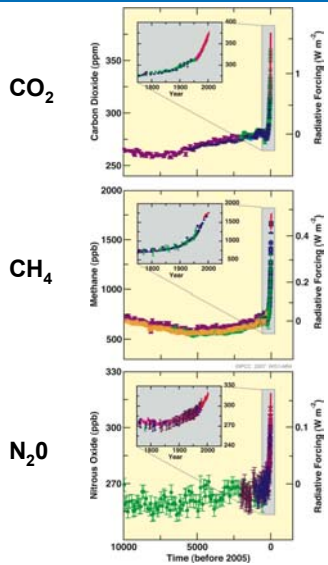
Intertwined Challenges



Climate change: nr 1 on the world agenda

- World Economic Forum – Davos 2008
- Extreme weather across globe (South Asia monsoons, heavy rains in northern Europe, unusual snowfall in South Africa and South America)
- 2007 Nobel Peace Prize to *Al Gore* and the *UN Intergovernmental Panel on Climate Change (IPCC)*
- “Bali Roadmap” - two-year process to finalize an agreement and to address concerns regarding “adaptation”, deforestation and clean technologies
- Oil prices from low of USD 50 at start of 2007 – peak at USD 150 and now around USD 120/barrel
- G8 meetings: from Gleneagles (UK) to Toyako (Japan)

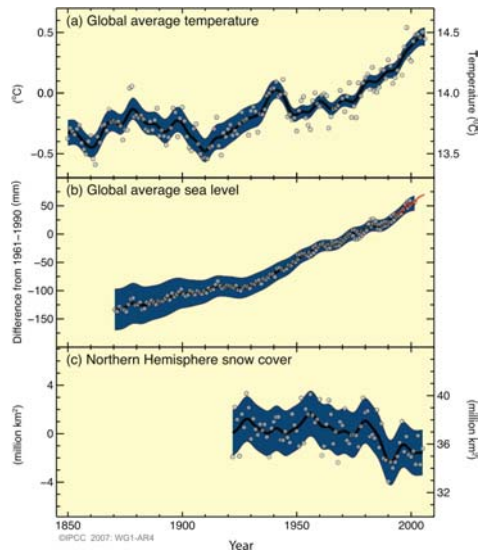
Climate change is unequivocal!



Temp

Sea levels

Snow cover



ISO and the response to climate change

Consensus-based International Standards to:

- Monitor the phenomenon
- Quantify and communicate GHG impact and carbon footprint
- Promote good environmental management, practices and design
- Open world markets for green and energy efficient technologies, and sustainable energy sources



Climate change: monitoring the phenomenon

- ISO/TC 211 on *geographic information and geomatics*
- Work currently initiated with FAO/WMO with ISO/TC 211 to help track “essential climate variables”
- ISO/TC 146/SC 5 on *air quality, meteorology*
 - Collaboration with the UN Food and Agriculture Organization (FAO) on satellite mapping and data acquisition and processing – *formal cooperation agreement underway*
 - Collaboration with World Meteorological Organization (WMO) on meteorological, climatological data and related standards – *formal cooperation agreement underway*

Climate change: quantifying and communicating environmental and GHG impact (“carbon footprint”)

- **ISO 14020:2000** - *Environmental labels and declarations*
- **ISO 14063:2006** - *Environmental communication*
- **ISO 21930:2007** - *Environmental declaration of building products*
- **ISO 14064:2006** - *GHG emissions*
ISO 14065:2007 accounting and verification
- Future work on “carbon footprint” in new ISO/TC 207 Subcommittee

ISO 14064/65: a basic tool box

- **ISO 14064-1:** Greenhouse gases-- Part 1: Specification with guidance at the **organization level** for quantification and reporting of GHG emissions and removals
- **ISO 14064-2:** Greenhouse gases-- Part 2: Specification with guidance at the **project level** for quantification, monitoring and reporting of GHG emission reductions or removal enhancements
- **ISO 14064-3:** Greenhouse gases-- Part 3: Specification with guidance for the **validation and verification** of GHG assertions
- **ISO 14065:** Greenhouse gases -- Requirements for greenhouse gas validation and verification bodies **for use in accreditation** or other forms of recognition

ISO and linkages with other GHG accounting approaches

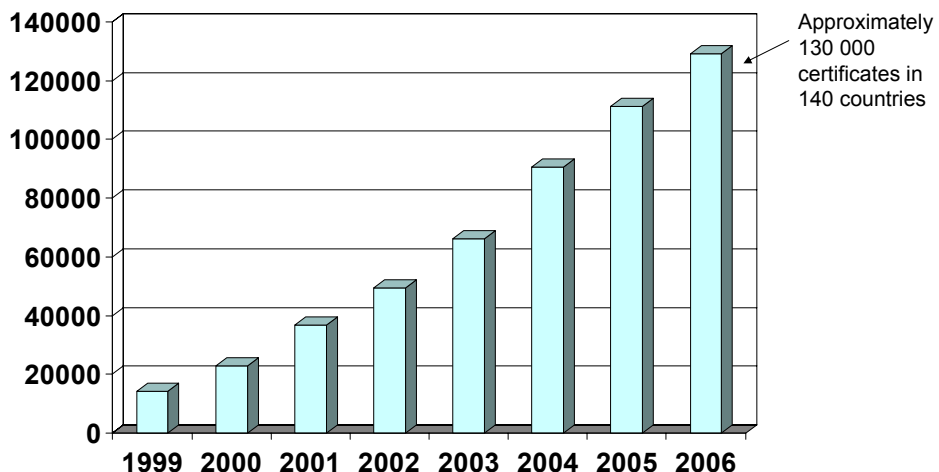
- MoU with WRI/WBSCD addressing technical cooperation, promotion and training: complementary between ISO 14064 - providing “*What*”- and the GHG Protocol providing “*How*”
- MoU with the “Voluntary Carbon Standard” (VCS) using ISO 14064 as framework and referencing ISO 14065
- UNFCCC in active liaison with ISO TC/207

Promoting good environmental design and management practices

- **ISO 14040:2000** - Principles and framework for *life cycle analysis*
- **ISO 14001:2004** - *Environmental management system requirements* with guidance for use
- **ISO 14004:2004** - *Environmental management system guidelines*
- **ISO 21930:2007** - *Environmental declaration of building products*
- **ISO 13823:2008** - *General principles on the design of structures for durability*
- **ISO 15392:2008** - *Sustainability in building construction*

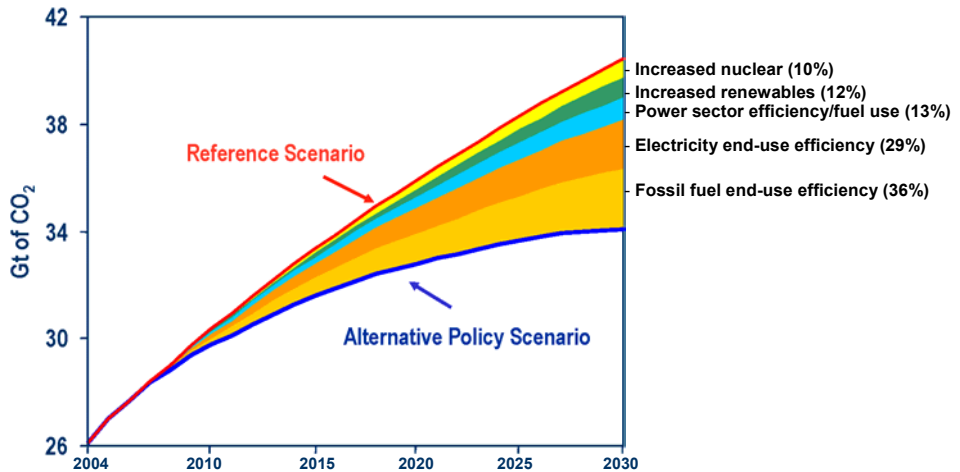


One indicator of global take-up: 3rd party certificates to ISO 14001



Energy efficiency + renewable sources Future key to cutting/reducing CO₂

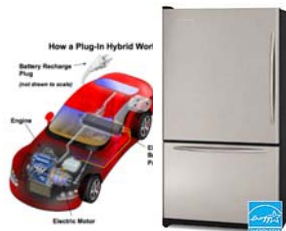
International Energy Agency (IEA) 'Alternative Policy Scenario'



Energy efficiency: a necessary 'first point of attack'

- Powerful and cost-effective tool for achieving a sustainable energy future
- Reduce need for investment in energy infrastructure, cut fuel costs and increase competitiveness
- Reduce impact on environment and contribute substantially to lower GHG emissions

End-Use



Power Generation



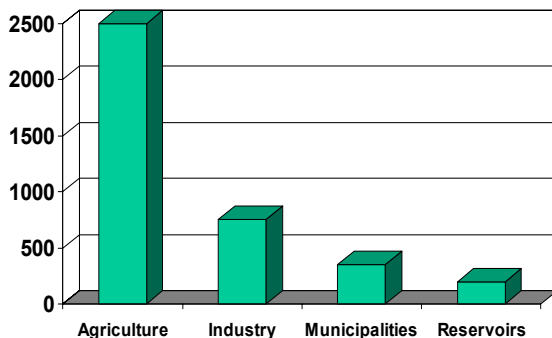
Energy efficiency – ISO's response

- ❖ 18 ISO technical committees involved in aspects of energy efficiency
- ❖ Sustainability in construction and energy efficiency of buildings
- ❖ Intelligent transport systems
- ❖ Energy weighting, aggregation and calculation methods (energyware)
- ❖ NEW ISO SAG on Energy efficiency and renewable sources
- ❖ NEW activity - Energy Management, systems approach to energy performance
- ❖ NEW SC on biofuels to first establish specs for biodiesel and bioethanol quality
- ❖ Cooperation with IEA, WEC, IEC and UNIDO

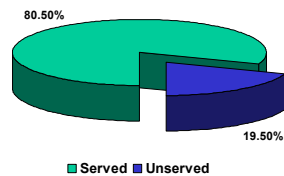


Water A stressed renewable resource

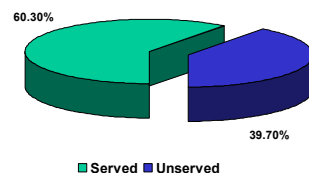
Global Water Use (km³)



2000 Global Water Supply (Population %)



2000 Global Sanitation (Population %)



The water challenge – ISO's response

- ISO/TC 30 : increasingly important work on “water metering” in closed conduits
- ISO/TC 113 on Hydrometry: open channels & groundwater: assessment of water resources possible only by its proper measurement
- ISO/TC 147 on water quality – 238 published standards: sampling and measurement of water characteristics
- ISO/TC 224 - Water treatment and drinking water – quality of services – providing confidence in areas of public/private transition

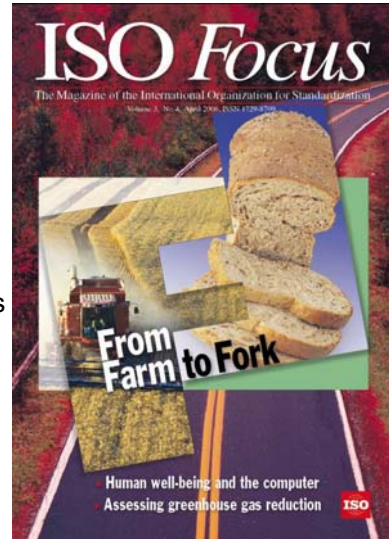


Global nutrition challenge *Impacting those least able to respond*

- Current acute food crisis – low stocks, high prices, aggravated by climate change effects such as extreme weather and water scarcity.
- Biofuel debate: common standards and sustainability considerations to support sound public policy
- Food safety, use of GMOs, value-adding aspects related to food production, processing and distribution (fair-trade, low carbon footprint, organic food...)

Overview of ISO key activities in food standardization

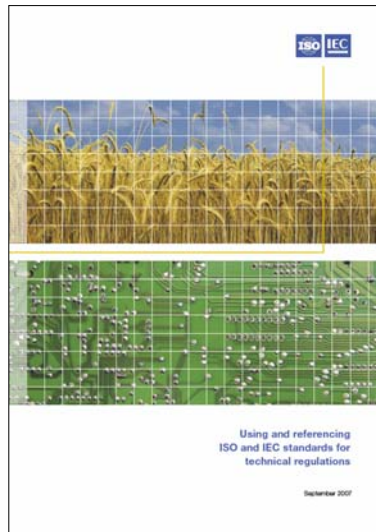
- ISO/TC 34, Food products
 - 724 standards
 - Food safety (ISO 22000 series)
 - Detection of GMOs
 - Food traceability systems
 - Irradiation of food
 - Sensory and Microbiological analysis
 - many test methods for seeds, fruits and vegetables, cereals, milk, meat and poultry, spices ..
- ISO/TC 93 on starch – established test methods
- ISO/TC 234 on fisheries and aquaculture – ensuring sound 'farmed fish' production
- New SC on biofuels to establish specs for biodiesel and bioethanol quality
- New project on "Sustainability criteria for biofuels"



ISO Work programme and sustainability



Using and referencing ISO/IEC standards in technical regulations (information document)



ISO's related global networking

- WTO: TBT, SPS, Committee on Environment and Trade
- UN and UN agencies: CODEX, FAO, UN-DESA, UNEP, UN-FCCC and IPCC, UNIDO, WHO, WMO, WTO-Tourism,,..
- G8
- OECD: Transports Forum, IEA
- International Biofuels Forum
- Links with seven regional standardization bodies (ACCSQ, AIDMO, ARSO, CEN, COPANT, EASC, PASC)
- Economic actors: Accreditation: IAF and ILAC, Consumers International, World Economic Forum, World Energy Council, World Petroleum Congress, WRI, IISD, etc...
- World Standards Cooperation: IEC-ISO-ITU

ISO

International Standards for a sustainable world



Thank you for your attention !

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