ISO 14046: water footprint

Summary of the project

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ISO 14046: Towards an international standard for water footprinting
Working meetings
Environmental management — Water footprint — Principles, requirements and guidelines

1 Scope

This International Standard specifies principles, requirements and guidelines related to water footprint assessment of products, processes and organizations based on life cycle assessment (LCA).

This International Standard provides principles, requirements and guidelines for conducting and reporting a water footprint assessment as a stand-alone assessment or as part of a more comprehensive environmental assessment.

The result of a water footprint assessment is a single value or a profile of indicator results.

NOTE Specific requirements and guidelines for organizations are given in Annex A.
NWIP accepted in Cairo (June 2009)

The proposed International Standard will deliver **principles, requirements and guidelines** for a water footprint metric of **products, processes and organisations**, based on the guidance of **impact assessment** as given in ISO 14044. It will define how the different types of water sources (for example ground, surface, lake, river, green, blue, gray, etc.) should be considered, how the different types of water releases should be considered, and how the local environmental conditions (dry areas, wet areas) should be treated. For products, it will apply the life cycle approach and will be based on the same product system as specified in ISO 14040 and ISO 14044. At the organisation level, it will consider the guidance given by ISO 14064 for greenhouse gases. The standard will also address the **communication issues linked to the water footprint**
NWIP accepted in Oslo (June/July 2011)

• This International Standard specifies requirements and guidelines to assess and report the water footprints of products, processes and organizations based on life cycle assessment (LCA).

• This Standard provides requirements and guidance for calculating a water footprint as a stand alone assessment or as part of a more comprehensive environmental assessment.

• This International Standard is applicable to the assessment of full and partial water footprints.

• The water footprint is calculated as one impact indicator result or multiple impact indicator results.
ISO 14046 (DIS)
Environmental management — Water footprint — Principles, requirements and guidelines

• This International Standard specifies principles, requirements and guidelines related to water footprint assessment of products, processes and organizations based on life cycle assessment (LCA).
• This International Standard provides principles, requirements and guidelines for conducting and reporting a water footprint assessment as a stand-alone assessment or as part of a more comprehensive environmental assessment.
• The result of a water footprint assessment is a single value or a profile of indicator results.
• NOTE Specific requirements and guidelines for organizations are given in Annex A.
Planning

• Launch of the project:
  – 25+.Sep.2009: List of P and O participants

• Working meetings
    • (Stockholm, Sweden)
    • Title, Scope; Draft structure PWD
    • (Leon, Mexico)
    • Detailed sections PWD (Discussion on PWD1)
  – 24-26.01.2011: Third working meeting
    • (Lausanne, Switzerland)
    • Finalization of draft PWD (Discussion on PWD2)
  – 26.06-02.07.2011: Fourth working meeting
    • (Oslo, Norway)
    • Finalization of draft (Discussion on PWD3) + Submission of PWI for vote to advance it to AWI and acceptance
    • Acceptance of NWIP as WD1
  – 28.11-02.12.2011: Fifth working meeting
    • (Sao Paulo, Brazil)
    • Discussion on WD2, Acceptance to go for CD (TBC)
    • (Bangkok, Thailand)
    • Result for CD1 vote; Discussion on CD1
    • Decision to go for a CD2
    • (Padova, Italy)
    • Discussion on CD2
    • Decision to go for a DIS
    • (Gaborone, Botswana)
    • Decision to go for FDIS?
Organization

- WG 8, part of ISO / TC 207 / SC 5
  - ISO 14046
- Contact:
  - Proposer & Secretariat:
    - SNV, Swiss Association for Standardization
    - Barbara Mullis, barbara.mullis@snv.ch
    - (formerly Marcel Schulze)
  - Convener:
    - Sebastien Humbert, Quantis, Lausanne, Switzerland, sebastien.humbert@quantis-intl.com, +41-79-754-7566
  - Co-convener:
    - Nydia Suppen Reynaga, Centro de analisis de cyclo de vida y disenyo sustentable, Mexico, nsuppen@centroacv.com.mx
- List P and O members
  - App. 40 members
- To participate
  - As a national delegation or liaison member to TC207/SC5
Some background
Life Cycle Assessment: multiple synthetic indicators for decision-making
Going from inventory to risk and impacts

Inventory of water use (incl. affected)

Impact (midpoint; risk assessment)

Impact (endpoint; damages; area of protection)

Pollution
- Toxicity
- Eutrophication
- Acidification

Resource
- Thermal pollution

Water Inputs
- Surface water
- Groundwater
- Turbined water

Water Outputs
- Emissions generating water pollution

Pollution
- Acidification
- Eutrophication
- Toxicity

Impact (midpoint)

Human health [DALY]

Impact (endpoint, damages, area of protection)

Ecosystem quality [PDF-m²-y]

Resources [MJ]
**WATER FOOTPRINT = ALL IMPACTS ON WATER**

- **Outputs**
  - Pesticide
  - Chemicals

- **Impacts from lower water availability**
  - Direct impacts from pollution

- **Phosphate**
  - Carbon Dioxide

- **Respiratory effects**
  - Photochemical oxidation
  - Ozone layer depletion
  - Ionizing radiation
  - Toxic impacts
  - Global warming
  - Water use
  - Acidification
  - Eutrophication
  - Land use
  - Biotic resource use
  - Abiotic resource use
  - And hundreds more...

**Areas of protection**

- Human Health
- Ecosystem Quality
- Resources
QUESTIONS ?

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