

International Standards for Environmental Technical Regulations: Increasing the Ambition

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Abstract

International standards play an important role in assessing the WTO compatibility of national technical regulations.¹ This piece will focus on the International Organization for Standardization's (ISO) standards because it is the largest international standard-setting organization.² It will argue that the ISO has been important in addressing the climate emergency by establishing credible international environmental standards and including developing countries in the dialogue for developing technical regulations. However, the ISO needs to introduce more ambitious environmental standards to help states meet their Paris commitments and address the climate emergency.

¹See Agreement on Tech. Barriers to Trade, art. 2.4, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 120, https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm [hereinafter TBT].

²See ISO - Media kit, ISO, <https://www.iso.org/media-kit.html> (last visited May 28, 2024).

I. The Relevance of International Standards for Trade

International standards play a key role in the Technical Barriers to Trade Agreement (TBT). Where international standards exist, states are expected to use the international standards as the basis for their technical regulations.³ The only explicit exception to this is where the standards would be ineffective or inappropriate in the state's context.

Reliance on international standards changes a state's burden of proof when defending their technical regulations.⁴ If national technical regulations are based on international standards, there is a rebuttable presumption that the regulations do not create an unnecessary obstacle to international trade.⁵ This reversed burden of proof encourages states to rely on international standards when creating technical regulations.

Notably, it is difficult to quantify the prevalence of states' reliance on international standards for their technical regulations because there is no official published data. An old report found that ISO/IEC harmonization was 35% in Canada, 63% in Japan, and 55% in Korea.⁶ International standards are also referenced by WTO tribunal and appellate body when assessing TBT compatibility.⁷ Despite the evidential difficulties, it is clear that international standards are important and frequently used by states when developing technical regulations.

II. ISO's Method for Setting Standards

The ISO decides to create international standards in response to market needs.⁸ In practice, an industry or sector will petition their state to make a request to the ISO for a new international standard.⁹ The ISO relies on a diverse range of experts when creating their standards. The ISO has 250 technical committees with experts from around the world.¹⁰ The ISO has a multi-

³See *TBT*, *supra* note 1 at art. 2.4.

⁴In situations where international standards are used, the complainant country bears the burden of proof that the technical regulation is inconsistent with Article 2.4, TBT. See Bradley J. Condon & Tapen Sinha, *The Role of Climate Change in Global Economic Governance* 88 (Oxford University Press, 1st ed. 2013). Note, "the heart of Article 2.4 of the TBT Agreement is a requirement that Members use international standards as a basis for their technical regulations." See Appellate Body Report, *European Communities – Trade Description of Sardines*, ¶ 274-5, WTO Doc. WT/DS231/AB/R (adopted on Oct. 23, 2002).

⁵See *TBT*, *supra* note 1 at art. 2.5.

⁶See Dong Geun Choi & Erik Puskar, *A Review of U.S.A. Participation in ISO and IEC*, U.S. DEP'T OF COM., NAT'L INST. OF STANDARDS AND TECH., NISTIR 8007 <https://www.govinfo.gov/content/pkg/GOVPUB-C13-2941df4136f7861ed409188aec95bc16/pdf/GOVPUB-C13-2941df4136f7861ed409188aec95bc16.pdf> (last visited June 3, 2014).

⁷See generally Appellate Body Report, *European Communities – Trade Description of Sardines*, WTO Doc WT/DS231/AB/R, (Sept. 26, 2002). The Appellate Body held that CODEX STAN 94–1981, Rev.1–1995 was an "international standard." The Appellate Body then proceeded to assess whether the standard was used "as a basis for" the European Council Regulation (EEC) 2136/89, for the purposes of Art. 2.4 TBT, and ultimately concluded that it was not.

⁸See *ISO - Developing standards*, Int'l Org. of Standardization, <https://www.iso.org/developing-standards.html> (last visited May 29, 2024). ISO/IEC Directives, Part 1, Procedures for the technical work — Consolidated ISO Supplement — Procedures specific to ISO, VO1/2024, C.3.2.

⁹See Walter Mattli & Tim Büthe, *Setting International Standards: Technological Rationality or Primacy of Power?*, 56 *WORLD POLITICS*, 1, 8 (2003).

¹⁰See *ISO - Who develops standards*, INT'L ORG. OF STANDARDIZATION, <https://www.iso.org/who-develops-standards.html> (last visited May 29, 2024).

stakeholder process which considers the views of industry, consumer associations, NGOs, governments and academics.¹¹ The ISO ultimately acts on a “consensus basis,” so all perspectives are given recognition.¹²

III. ISO’s Important Role in Addressing the Climate Emergency

The ISO has multiple technical standards regarding the environment.¹³ A key standard was the establishment of an environment management system which helps organizations reduce their environmental impact and fulfil environmental commitments.¹⁴ The ISO has also established standards for environmental labelling,¹⁵ and greenhouse gas quantification.¹⁶

The ISO’s strong reputation gives credibility to the tools which can be used to address climate change. The ISO’s standards reflect that environmental technical standards can be practical and are feasible. The ISO’s strong reputation is rooted in its robust processes and diverse membership.¹⁷ It is the largest international standards organization, making it a key authority when assessing TBT compatibility. As a result, ISO standards are widely cited in WTO panel decisions and in national regulation.¹⁸

The ISO plays an important role in including developing countries in the dialogue for environmental product requirements.¹⁹ This is in line with the WTO’s sixth principle for developing international standards: facilitating developing countries’ participation.²⁰ 75% of

¹¹See *ISO - Developing standards*, INT’L ORG. OF STANDARDIZATION, <https://www.iso.org/developing-standards.html> (last visited May 29, 2024).

¹² See *id.*

¹³See generally *ISO - ISO 14000 family — Environmental management*, INT’L ORG. OF STANDARDIZATION, <https://www.iso.org/standards/popular/iso-14000-family> (last visited May 29, 2024).

¹⁴See generally *ISO 14001: Env’t Mgmt. Sys.*, INT’L ORG. FOR STANDARDIZATION, (Sept. 2015), <https://www.iso.org/standard/60857.html>

¹⁵See generally *ISO 14020: Env’t Statements and Programmes for Prod.*, INT’L ORG. FOR STANDARDIZATION, (Dec. 2022), <https://www.iso.org/standard/79479.html>; see also *ISO 14021: Env’t Labels and Declarations*, INT’L ORG. FOR STANDARDIZATION, (Mar. 2016) <https://www.iso.org/standard/66652.html>; *ISO 14024: Env’t Labels and Declarations*, INT’L ORG. FOR STANDARDIZATION, (Feb. 2018), [https://www.iso.org/standard/72458.html#:~:text=ISO%2014024%3A2018%20establishes%20the,for%20assessing%20and%20demonstrating%20compliance](https://www.iso.org/standard/72458.html#:~:text=ISO%2014024%3A2018%20establishes%20the,for%20assessing%20and%20demonstrating%20compliance;); *ISO 14025: Env’t Labels and Declarations*, INT’L ORG. FOR STANDARDIZATION, (Jul. 2006), <https://www.iso.org/standard/38131.html>

¹⁶See generally *ISO 14064: Greenhouse Gases*, INT’L ORG. FOR STANDARDIZATION, (Dec.2018), <https://www.iso.org/obp/ui/en/#iso:std:iso:14064:-1:ed-2:v1:en>

¹⁷ See Jeanne Dupondant, *International Regulatory Co-operation and International Organisations: The Case of the International Organization for Standardization (ISO)*, OECD and ISO, 43 – 44, (2016), https://www.oecd.org/gov/regulatory-policy/iso_full-report.pdf (last visited June 1, 2024).

¹⁸See Dong Geun Choi & Erik Puskar, A Review of U.S.A. Participation in ISO and IEC, U.S. Dep’t of Com., Nat’l Inst. of Standards and Tech., NISTIR 8007, (last visited June 3, 2014), <https://www.govinfo.gov/content/pkg/GOVPUB-C13-2941df4136f7861ed409188aacc95bc16/pdf/GOVPUB-C13-2941df4136f7861ed409188aacc95bc16.pdf>; See also Appellate Body Report, *European Communities – Trade Description of Sardines*, WTO Doc WT/DS231/AB/R (adopted on Oct. 23, 2002).

¹⁹See *ISO’s Action Plan for Developing Countries 2021-2025*, INT’L ORG. OF STANDARDIZATION(2021), <https://www.iso.org/cms/render/live/en/sites/isoorg/contents/news/2021/05/Ref2667.html> (last visited May 29, 2024).

²⁰See Principles for the Development of International Standards, Guides and Recommendations, World Trade Organization, https://www.wto.org/english/tratop_e/tbt_e/principles_standards_tbt_e.htm (last visited Mar. 3, 2024).

the ISO membership is from developing countries.²¹ This is particularly important because product requirements are often disadvantageous to developing countries who do not have the capacity to conform with the requirements.²² As a result, the inclusion of developing countries in the setting of ISO standards can help ensure the feasibility of the environmental standards throughout the world.²³ In addition, the ISO provides capacity building for developing countries, namely by providing technical assistance.²⁴

Furthermore, the ISO's multi-stakeholder process ensures that a diverse range of perspectives are reflected in the environmental standards. Consideration of both consumer and industry views encourages practical, but also progressive, standards.²⁵

IV. Increasing Ambition

The ISO's powerful position in setting international technical standards makes it a crucial body for taking ambitious steps to address the climate emergency. The ISO has important environmental standards but there is huge opportunity for the ISO to introduce ambitious standards in new areas. In particular, the ISO should introduce standards for products' energy efficiency requirements.²⁶

Product energy efficiency requirements can build on the existing ISO standard for energy management systems which lays out methods for organizations to improve their energy efficiency, but does not directly require manufacturers to produce energy efficient products.²⁷ In addition, the ISO's energy efficient product standard should act as a floor, with options for products to have higher energy efficiency ratings and be labelled as such.²⁸

²¹ See Clare Naden, *ISO's Action Plan for Developing Countries 2021-2025*, INT'L ORG. OF STANDARDIZATION, (2021), <https://www.iso.org/cms/render/live/en/sites/isoorg/contents/news/2021/05/Ref2667.html> (last visited May 29, 2024).

²² The difficulties faced by developing countries is explicitly referenced in the preamble of the TBT Agreement.

²³ See *Making developing country voices count*, INT'L ORG. OF STANDARDIZATION, <https://capacity.iso.org/cms/render/live/en/sites/cb-mini/home/projects/making-developing-country-voices.html> (last visited May 29, 2024).

²⁴ See *ISO Action Plan for Developing Countries 2021-2025*, INT'L ORG. FOR STANDARDIZATION, (2021), <https://www.iso.org/news/ref2667.html>

²⁵ See generally Genevieve Diesing, *The Essential Benefits of ISO Standards for Manufacturers*, QUALITY MAG., (Aug. 2023), <https://www.qualitymag.com/articles/97509-the-essential-benefits-of-iso-standards-for-manufacturers> (last visited May 29, 2024).

²⁶ See generally Ryerson Neal, *Trade and Climate Change: Synergies and Conflicts*, CTR. FOR INT'L GOV. INNOVATION (2018), https://www.cigionline.org/static/documents/documents/ILRP%202018%20Ottawa_0.pdf

²⁷ See *ISO 50001: Energy Management Systems*, INT'L ORG. FOR STANDARDIZATION, (Aug. 2018), <https://www.iso.org/obp/ui/en/#iso:std:iso:50001:ed-2:v1:en>

²⁸ See generally *ISO 14020: Environmental Statements and Programmes for Products*, INT'L ORG. FOR STANDARDIZATION, (Dec. 2022), <https://www.iso.org/standard/79479.html>; see also *ISO 14021: Env't Labels and Declarations*, INT'L ORG. FOR STANDARDIZATION, (Mar. 2016), <https://www.iso.org/standard/66652.html>; *ISO 14024: Env't Labels and Declarations*, INT'L ORG. FOR STANDARDIZATION, (Feb. 2018), <https://www.iso.org/standard/72458.html#:~:text=ISO%2014024%3A2018%20establishes%20the,for%20assessing%20and%20demonstrating%20compliance>; *ISO 14025: Env't Labels and Declarations*, INT'L ORG. FOR STANDARDIZATION, (Jul. 2006), <https://www.iso.org/standard/38131.html>

Despite the lack of international standards, energy efficient product regulations have been implemented around the world with tangible benefits. For example, in the United States, the Department of Energy's energy efficiency appliance standards have been beneficial to consumers, who save on average \$321 per year on their energy bills, and also beneficial on a national scale, with \$2 trillion in savings estimated by 2030.²⁹ In the EU, compliance with minimum Ecodesign standards saved households €900 in 2022.³⁰ The energy efficiency of products is especially pertinent in Europe due to the energy crisis created by Russia's invasion of Ukraine.

Product energy efficiency has been lauded as a key method to achieving countries' Paris targets and addressing the climate emergency.³¹ Energy efficiency standards can be implemented quickly using existing technologies.³² On a wider scale, modelling by the IEA shows energy efficiency standards across different sectors as the largest contributor to global energy emission reduction.³³

Thus, an ISO energy efficiency standard can harmonise existing national regulations on appliance energy efficiency. The energy efficiency standard would be in line with the ISO's multistakeholder approach as it provides benefits for consumers via reduced energy bills, for governments via reduced energy consumption, and to manufacturers via consistent product regulation.³⁴ Notably, ISO standards are created at the request of states.³⁵ The widespread benefits of an energy efficiency standard makes it practical and politically feasible for a state to request for the ISO to create a new energy efficiency standard.

²⁹See *Saving Energy and Money with Appliance and Equipment Standards in the United States*, U.S. Dep't of Energy, (Jan. 2017), <https://www.energy.gov/eere/buildings/articles/appliance-and-equipment-standards-fact-sheet>

³⁰See The Eur. Consumer Org. *Energy-Saving Appliances: The Silent Money Makers in Consumers' Homes*, (May2023), https://www.beuc.eu/sites/default/files/publications/BEUC-X-2023-056_Energy-savings_appliances_the_silent_money_makers_in_consumers_homes.pdf

³¹See *Insights Brief: Meeting climate change goals through energy efficiency – Analysis*, INT'L ENERGY AGENCY, (2017), <https://www.iea.org/reports/insights-brief-meeting-climate-change-goals-through-energy-efficiency> (last visited June 1, 2023).

³² See *id.*

³³ See *Meeting Climate Change Goals Energy Efficiency Insight Brief*, INT'L ENERGY AGENCY, (Dec. 2017), <https://www.iea.org/reports/insights-brief-meeting-climate-change-goals-through-energy-efficiency> (last visited June 1, 2024).

³⁴See *Public budgets – Multiple Benefits of Energy Efficiency – Analysis*, INT'L ENERGY AGENCY, <https://www.iea.org/reports/multiple-benefits-of-energy-efficiency/public-budgets> (last visited May 29, 2024); see also *Energy Efficiency*, ENERGY STAR <https://www.energystar.gov/about/how-energy-star-protects-environment/energy-efficiency> (last visited May 29, 2024).

³⁵See Walter Mattli & Tim Büthe, *Setting International Standards: Technological Rationality or Primacy of Power?*, 56 WORLD POLITICS 1, 8, (2003); see also *ISO - Stages and resources for standards development*, INT'L ORG. FOR STANDARDIZATION, <https://www.iso.org/stages-and-resources-for-standards-development.html> (last visited May 29, 2024).

V. Conclusion

The ISO's unique position in developing technical regulation makes it a key actor for increasing technical standards to address the climate emergency. The variety of stakeholders in the ISO (governments, consumer organisations, industry groups, NGOs and academics) must capitalise on the ISO's power to address the climate emergency. Introducing ambitious environmental international standards, such as energy efficiency requirements, is likely to empower countries to take these aggressive steps to address the climate emergency. Thus, in setting these standards, the ISO must raise the norm.