CLEAN COOKSTOVES & CLEAN COOKING SOLUTIONS

ORGANIZATIONAL SPECIFICS

Standards Organizations:	ISO
Technical Committees:	ISO/IWA 11 and ISO/TC 285 Clean cookstoves and clean cooking solutions
Other Partnering Organizations:	ANSI, KEBS, Clean Cooking Alliance, United Nations Foundation, PCIA
Government Organizations:	EPA
Industry Sector(s) / Technology:	Household energy
Program / Activity Website URL(s):	https://www.iso.org/committee/4857971.html; https://www.ansi.org/iso/ansi-activities/ansi-administered-tags/tc-285-clean-cookstoves-clean-cooking-solutions

STANDARDS DRIVEN PUBLIC-PRIVATE PARTNERSHIP (PPP) OBJECTIVES

PPP Drivers:

In 2011, the U.S. Environmental Protection Agency (EPA) issued an RFQ entitled "Development of Fuel Efficiency, Emissions and Safety Performance Standards for the Partnership for Clean Indoor Air," to provide support for the development of voluntary performance standards for emissions, fuel efficiency, and safety of cooking and heating technologies and fuels being promoted in parts of Asia, Africa, and Latin America. These performance standards were intended to provide policy makers, donors, stove programs, and other stakeholders with a credible basis for: comparing stove performance and safety; helping all stakeholders have a common set of terminology (Clean, Efficient, Safe, Durable) for communicating and understanding stove performance; giving stove makers affirmation of product quality; letting stove users know that they are making a worthwhile investment; driving innovation in the industry; and enabling governments and non-governmental organizations to certify that locally available technologies meet uniform performance benchmarks based on the current state of knowledge. ANSI was interested in partnering in order to align the activity with the existing U.S. and international standards landscape, which includes a robust system designed to produce standards and other deliverables in a consensus process, inclusive of the viewpoints of affected stakeholders.

PPP Goals:

The objectives were to:

1. Identify existing and in-progress performance standards related to cooking and heating stoves and fuels (e.g., biomass, kerosene, coal) commonly used in developing countries.
2. Conduct detailed consultations with key individuals to solicit input on existing performance standards, as well as suggestions for new performance standards.
3. Draft proposed fuel efficiency, emissions, and safety performance standards for a variety of cooking and heating technologies and fuels for public comment.
4. Convene a well-attended international workshop of key stakeholder organizations and subject matter experts to resolve the public comments, further refine the performance standards, and develop a list of proposed actions to promote the adoption of voluntary cook stove performance standards.
5. Document the discussions and the outcomes of the workshop for dissemination via Partnership for Clean Indoor Air communication channels (e.g., bulletin, website, and emails) and publication in a peer reviewed journal.
6. Develop additional ISO standards to support efforts identified through the workshop.

Public Sector Role & Participation:

ANSI was awarded a contract with EPA and EPA provided funding to the Global Alliance for Clean Cookstoves (GACC) through a Cooperative Agreement. The Global Alliance for Clean Cookstoves had built a network of technical experts from around the world and ANSI brought expertise as the U.S. member body to ISO, coordinator of the U.S. standards system, and connections with other standards bodies around the world. Together, ANSI, EPA, and GACC developed a multi-step plan to build on the initial work done through the technical expert network by introducing a proposal for an ISO International Workshop Agreement (IWA). The IWA provided an opportunity to expand the stakeholder input into the interim draft technical document, expand consensus around parameters of a future standard, and introduce the subject and stakeholders to the ISO process. EPA and GACC organized the meeting, including ensuring that stakeholder voices were present, EPA staff chaired the workshop meeting, and ANSI staff served as the secretariat, facilitating the meeting, drafting the document, and communicating with stakeholders.

Once the workshop was complete, and IWA 11:2012 was published, ANSI, with support from GACC and EPA, proposed the creation of a new ISO Technical Committee that would continue the progress made with the goal of developing international standards for clean cookstoves and cooking solutions. As the work transitioned to ISO Technical Committee TC 285 Clean cookstoves and clean cooking solutions, EPA, GACC, and all other affected U.S. stakeholders continued to provide their input and vote on the standards under development, participating through ANSI and its established process for U.S. Technical Advisory Groups (TAGs), or if located outside the U.S., through one of the other 21 participating member countries and 27 observer countries that sit on TC 285.

After the initial funding provided by EPA that supported ANSI's preliminary consultations and the logistics of the IWA, funding was also provided by GACC to support ANSI to serve as secretariat of TC 285, and engage in a twinning arrangement with Kenya Bureau of Standards (KEBS), the ISO member from Kenya, with the goal of transitioning the secretariat to Kenya, which occurred in 2018.

Today, Kenya serves as the secretariat of the international committee, while ANSI, through EPA funding, continues to serve as the U.S. TAG administrator for the committee. And GACC, now called the Clean Cooking Alliance, is a member of the U.S. TAG.

Implementation Methods:

A phased approach was used.

- **Phase 1**: The purpose of Phase 1 was to identify the standards, documents, and procedures in place for cookstoves around the world, with the goal of defining the parameters for a globally accepted standard for clean cookstoves. The activities in Phase 1 included: identifying a core "working group" of individuals that supported and provided guidance towards the initiative, as well as a broader group of cookstove stakeholders; identifying the existing national and international standards, policies, procedures, and documents pertaining to cookstove performance; and conducting consultations with key representatives of cookstove stakeholders such as national standards bodies (NSBs), domestic and international policy-makers, donor organizations, and other stakeholders.
- **Phase 2**: Using the information gathered in Phase 1, the activities in Phase 2 were geared toward identifying potential paths forward in advancing a globally accepted standard for testing the performance of cookstoves and reporting that performance for a number of attributes like emissions, efficiency, and safety, and gathering stakeholders to reach consensus on a recommended path. A workshop was held to present the findings in Phase 1 and then moderated discussion to gather feedback, identify elements that should be included in a globally recognized standard for clean cook stove technology, and begin to work towards consensus. The output of this work was published as IWA 11:2012 Guidelines for evaluating cookstove performance.
- **Phase 3**: Using the information gathered in Phases 1 and 2, ANSI proposed the formation of an ISO Technical Committee on Clean cookstoves and cooking solutions (ISO/TC 285) to further elaborate on the work in IWA 11:2012 and create additional standards.

To date, ISO/TC 285 has published seven standards and has membership from over 40 ISO member countries.

Measurement of Success:

The PPP goals were met and standards were produced, leveraging the expertise and input from both public and private sector stakeholders throughout. At the five-year review cycle for ISO 19867-1:2018 *Clean cookstoves and clean cooking solutions — Harmonized laboratory test protocols — Part 1: Standard test sequence for emissions and performance, safety and durability*, the following countries indicated that they have adopted or intended to adopt the standard: Austria, Burundi, China, Ethiopia, Germany, Ghana, Kenya, Mexico, Rwanda, Tanzania, Uganda, UK. It is also likely other countries that did not respond to the five-year review are using the document as well.

It is important to note that more than 200 representatives from more than 40 countries participated in regional action-planning workshops to disseminate the ISO standard and to encourage its adoption or adaptation. These workshops were co-organized by EPA, CCA, the ISO capacity building division, and the World Health Organization, and two in-person workshops were held, in Asia and East Africa, and given Covid barriers, two virtual workshops were held, in French for Francophone African countries and Haiti, and in Spanish for Latin America countries.

Key Takeaways:

One takeaway from this experience was confirmation of the value that international standards provide to achieving public policy and development goals and the needs of users and industry. Even though the subject of clean cookstoves had not previously been addressed through international standards at the scale of this project, the work successfully progressed from a lack of relevant standards, to an international deliverable (IWA), to a suite of seven ISO international standards, increasing the level of consensus each step of the way.

Advice for Others:

The development of ISO standards requires both time and travel in many cases. This PPP was able to eliminate some of the barrier by funding the travel of experts (equally distributed among the members) and allowed experts to focus on the technical content of the documents.

Last updated September 2024. This use case was developed as part of an ANSI project performed under the following financial assistance award 70NANB24H075 from U.S. Department of Commerce, National Institute of Standards and Technology.