



HOW STANDARDS CAN IMPROVE ENVIRONMENTAL SUSTAINABILITY

Many places around the world are experiencing climate change, including higher temperatures; rising sea levels; less predictable rains and harvests; and more frequent and intense droughts, storms, and floods. The greenhouse gas emissions driving climate change also create toxic smog that blankets many urban environments, posing serious health risks to people in many developing countries.

To slow the advance of global climate change and mitigate its harmful effects in developing countries, governments and industry are seeking to pursue green innovation and adopt clean technologies and processes. Governments, often in tandem with industry, have sought to create supporting regulatory frameworks, including product and process standards that spur innovation and encourage the adoption of new technologies.

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Environmental regulation can encourage home-grown innovation, knowledge sharing, efficient use of resources, and the spread of proven clean technologies. However, regulations that fail to meet international standards or new standards that restrict competition, are non-transparent, or impede market access can prevent the most effective and innovative environmental solutions from reaching communities that could benefit greatly from them.



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THE POTENTIAL OF STANDARDS FOR DEVELOPING COUNTRIES

CASE STUDY: EPA STANDARDS BOOST FREIGHT EFFICIENCY ABROAD

SmartWay Transport is the US Environmental Protection Agency's (EPA) flagship program establishing standards for improving fuel efficiency and reducing greenhouse gases and air pollution from the transportation supply chain industry. Its multi-stakeholder program, which was designed based on input from EPA,

environmental groups, and the business community, has proven to be a good template for freight sustainability programs in other countries seeking to set equipment specifications and efficiency targets.



EPA has provided technical guidance for a successful Green Truck demonstration pilot in Guangzhou, China, in 2009. SmartWay technology was installed on three fleets of trucks to demonstrate the fuel saving benefits of advanced aerodynamics and improved tire systems—results showed fuel savings of between 2% and 18%. The project's success led to a \$5 million grant from the World Bank's Global Environment

Facility to implement an extended project with the goal of retrofitting over 2,000 trucks with SmartWay technologies.

Mexico also modeled its freight efficiency effort, Transporte Limpio, on SmartWay tools, quantification, and reporting methods. Mexico's program now includes over 70 partners and works to educate the industry on SmartWay technologies and operational practices. *Source: EPA*



Adoption of consensus standards can play a key role in helping developing countries manage the environmental effects typically associated with economic growth.

REDUCING HOUSEHOLD POLLUTION

Growing populations in developing countries are increasingly contributing to global climate change by burning waste and by heating and cooking using coal and biomass fuels. Household fuel combustion contributes to outdoor air pollution and climate change, and, in some regions, fuel-gathering for inefficient stoves contributes to environmental degradation, including deforestation and desertification.

The adoption of innovative, cleaner household products can go a long way toward reducing a family's environmental footprint and protecting the most vulnerable populations from exposure to pollution. However, it is essential that these new technologies are safe for use in homes, fuel efficient, economical, and reduce indoor and outdoor emissions. If they fail in any of these aspects, they will not be adopted by target populations. International standards for environmentally sustainable household products can help ensure new technologies adequately address the needs of at-risk populations and also help governments and donors mitigate household impacts on the environment.

MINIMIZING TRANSPORTATION POLLUTION

The emissions generated by road, rail, air, and sea travel can create harmful emissions that expose populations to serious

health risks and contribute to global climate change. Countries can enable effective and innovative transportation solutions by adopting international regulatory standards for transportation needs. Having access to quality products with high efficiency and low emissions can enable developing countries to foster healthier air and slow the pace of climate change.

International standards for efficiency and emissions reduction are developed by a variety of organizations in which developing country participation can help assure standards meet their regulatory needs. Examples of these organizations include the World Forum for Harmonization of Vehicle Regulations, CODEX, and the International SmartGrid Alliance.

PROMOTING SUSTAINABLE DEVELOPMENT

Development of natural resources, including minerals, fossil fuels and forests, often generates significant quantities of greenhouse gases. Moreover, the destruction of the natural landscape can reduce the environment's capacity to absorb these greenhouse gases and thereby mitigate climate change. As developing countries seek to responsibly use their natural resources, it is critical that accompanying regulations are adopted to ensure environmental protection. Regulators in developing countries can benefit from the experiences of other resource-based economies by adopting international consensus standards for the development and management of natural resources. These standards, which reflect state-of-the-art thinking in environmental management and the use of environmentally sound harvesting and extraction processes, can help developing countries pursue economic growth while simultaneously reducing emissions and guarding against environmental degradation.



OPPORTUNITIES TO ENGAGE

International consensus standards are a critical tool for regulators seeking to balance economic development with environmental goals. Donors can play a key role in working with developing country partners to ensure that standards are effectively integrated into environmental protection programs. Potential interventions include:

- Mitigate the environmental impact of households by encouraging governments, donors, and consumers to purchase environmentally sustainable household products and appliances that meet consensus standards for quality, efficacy, and safety.
- Reduce transportation and industrial pollution by working with governments to adopt regulations based on consensus standards that address emissions.
- Support resource development while protecting the environment by encouraging governments to adopt regulations based on international consensus standards that will help them to manage the environmental impacts of mining and forestry.
- Build local capacity to develop environmental regulation by encouraging the adoption of international standards that reflect the best practices recommended by international experts.
- Increase access to new, state-of-the-art environmental technologies by ensuring national regulations do not discriminate against products from specific countries or producers, and are based on how technologies perform rather than how they are designed.

CASE STUDY: CLEAN COOKSTOVES

A public-private partnership—the Global Alliance for Clean Cookstoves—is now using International Standards Organization standards, regional testing, and knowledge centers throughout the world to ensure clean cookstove technologies reduce greenhouse gas emissions and improve safety and performance. The initiative is aiming to create new internationally recognized clean cookstove standards to facilitate investment, ensure and elevate cookstove quality, and improve cooking practices in poorer communities. *Source: Global Alliance for Clean Cookstoves*



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