

NATIONALLY DETERMINED CONTRIBUTIONS AND CLEAN COOKING



Why action on clean cooking is critical to achieving climate goals

We cannot achieve our global climate goals without reductions in emissions from cooking. Transitioning to clean cooking reduces demand on forests, thereby reducing CO₂ emissions. Further, household fuel combustion is the single largest source of manmade emissions of black carbon, a powerful short-lived climate pollutant that warms the atmosphere much more quickly than CO₂. Recognizing clean cooking as a critical climate solution will help to unlock the political will and financing needed to deliver clean cooking solutions at scale, and more effectively meet our climate goals.

Clean cooking and related measures in Nationally Determined Contributions (NDCs)

The inclusion of clean cooking in NDCs represents significant progress in utilizing clean cooking to mitigate climate change while also taking advantage of adaptation and development co-benefits.

As of March 2023, 98 low- and middle-income countries (LMICs) have already included household energy or clean cooking measures in their NDCs (see full list on next page). Of those, 72 LMICs include specific clean cooking targets in their NDC, while the remaining 26 LMICs include adjacent goals, such as household energy efficiency, forest conservation, and/or air quality, that could be partially met through clean cooking activities.

Climate impacts of cooking

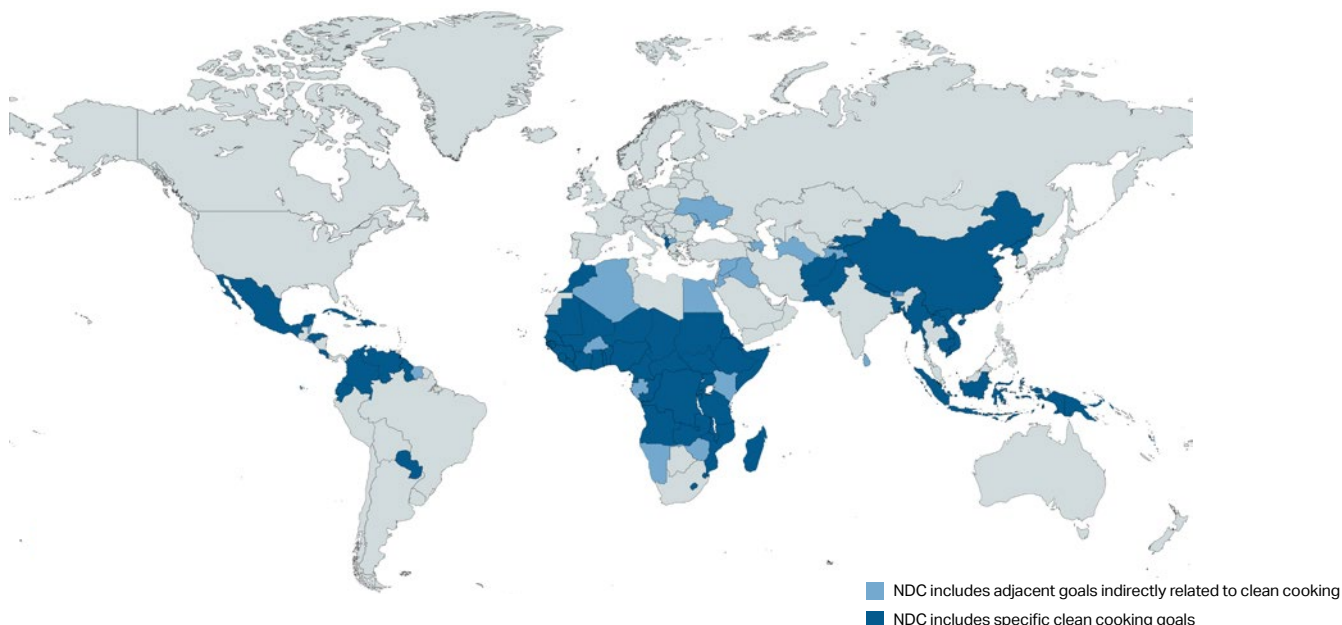
- Greenhouse gas emissions from non-renewable woodfuels for cooking amount to a gigaton of CO₂e per year, **representing about 2% of global emissions**, on par with emissions from aviation or shipping
- **>50% of anthropogenic black carbon emissions** come from household energy use
- **27-34% of woodfuel harvested globally** for all uses is unsustainable
- **High-efficiency stoves** can achieve a 30-60% reduction in fuel use

Examples of clean cooking targets in NDCs

Nepal: "By 2030, ensure 50% of households use electric stoves as their primary mode of cooking."

Rwanda: "Dissemination of modern efficient cookstoves to 80% of the rural population and 50% of the urban population by 2030."

The Clean Cooking and Climate Consortium (4C) applauds the 98 LMICs* that have included clean cooking or related goals in their NDCs [1,2].



These countries include:

- | | | | | |
|------------------------|----------------------|--------------------|--------------------|----------------------------------|
| ■ Afghanistan | ■ Congo, Rep. | ■ Haiti | ■ Montenegro | ■ Suriname |
| ■ Albania | ■ Costa Rica | ■ Honduras | ■ Morocco | ■ St. Lucia |
| ■ Algeria | ■ Cote d'Ivoire | ■ Indonesia | ■ Mozambique | ■ St. Vincent and the Grenadines |
| ■ Angola | ■ Cuba | ■ Iraq | ■ Myanmar | ■ Syrian Arab Republic |
| ■ Azerbaijan | ■ Djibouti | ■ Jordan | ■ Namibia | ■ Tajikistan |
| ■ Bangladesh | ■ Dominica | ■ Kenya | ■ Nepal | ■ Tanzania |
| ■ Belize | ■ Dominican Republic | ■ Kiribati | ■ Niger | ■ Timor-Leste |
| ■ Benin | ■ Ecuador | ■ Korea, DPR | ■ Nigeria | ■ Togo |
| ■ Bhutan | ■ Equatorial Guinea | ■ Kyrgyzstan | ■ North Macedonia | ■ Tonga |
| ■ Burkina Faso | ■ Egypt | ■ Lao, PDR | ■ Pakistan | ■ Turkmenistan |
| ■ Burundi | ■ El Salvador | ■ Lesotho | ■ Palau | ■ Tuvalu |
| ■ Cabo Verde | ■ Eritrea | ■ Liberia | ■ Papua New Guinea | ■ Uganda |
| ■ Cambodia | ■ Eswatini | ■ Madagascar | ■ Paraguay | ■ Ukraine |
| ■ Cameroon | ■ Ethiopia | ■ Malawi | ■ Rwanda | ■ Vanuatu |
| ■ Central African Rep. | ■ Gabon | ■ Mali | ■ Senegal | ■ Venezuela |
| ■ Chad | ■ Gambia | ■ Marshall Islands | ■ Sierra Leone | ■ Vietnam |
| ■ China | ■ Ghana | ■ Mauritania | ■ Somalia | ■ Zambia |
| ■ Colombia | ■ Guinea | ■ Mexico | ■ South Sudan | ■ Zimbabwe |
| ■ Comoros | ■ Guinea-Bissau | ■ Micronesia | ■ Sri Lanka | |
| ■ Congo, DR | ■ Guyana | ■ Moldova | ■ Sudan | |

*As of March 2023

[1] This preliminary analysis was conducted by 4C. If you know of a country that has clean cooking or related measures in their NDC and is not listed here, please contact us at climate@cleancooking.org.

[2] The amount of detail that countries provide at the clean cooking level varies significantly; some countries include broad goals without detail, while others provide specific targets and technologies, costs of implementation, expected emissions reduction potential, conditionality, and more.

About the Clean Cooking and Climate Consortium

In 2021, the Clean Cooking Alliance (CCA) convened the Clean Cooking & Climate Consortium (4C), a partnership led by CCA that includes the United Nations Framework Convention on Climate Change (UNFCCC) secretariat, the United States Environmental Protection Agency (U.S. EPA), the Climate and Clean Air Coalition (CCAC), Berkeley Air Monitoring Group (Berkeley Air), and Stockholm Environment Institute (SEI). This consortium was formed to support countries' efforts in using cooking energy interventions to achieve climate goals as part of their NDC targets or through the international carbon market.

How can countries access support in identifying how to best meet their climate goals through clean cooking?

4C provides support at multiple levels, through [webinars](#) and guidance documents (see right), multi-country expert consultations that our partners request, in-depth country-specific technical consultations, including for the development of MRV plans and funding proposals, and technical advising on carbon standards and methodologies.

For more information, please visit 4C online [here](#) or email climate@cleancooking.org.



4C has released two guidance documents as part of its initial offerings

- *Clean Cooking for Climate Action: Roadmap for National Clean Cooking Programs to Achieve Emission Reduction Targets.* [This document](#) provides an overview of the benefits of and new opportunities for clean cooking transitions. It is intended to help governments and other stakeholders initiate, expand, or enhance clean cooking initiatives with the goal of reducing harmful climate-forcing emissions and supporting their commitments under the Paris Agreement.
- *Introductory Framework for Measuring, Reporting, and Verification for Clean Cooking Energy Initiatives: Clean Cooking MRV in the Paris Context.* [This document](#) introduces measurement, reporting, and verification (MRV) approaches and recommendations as they apply to cooking energy interventions. The document builds on existing MRV experience and highlights how these approaches may evolve in the context of the Paris Agreement. This guide is intended for any professional involved in the planning, execution, or funding of clean cooking projects that aim to reduce climate-harming emissions, within the context of the Paris Agreement goals.