

Clean Cookstoves and Carbon Markets

March 6th 2025

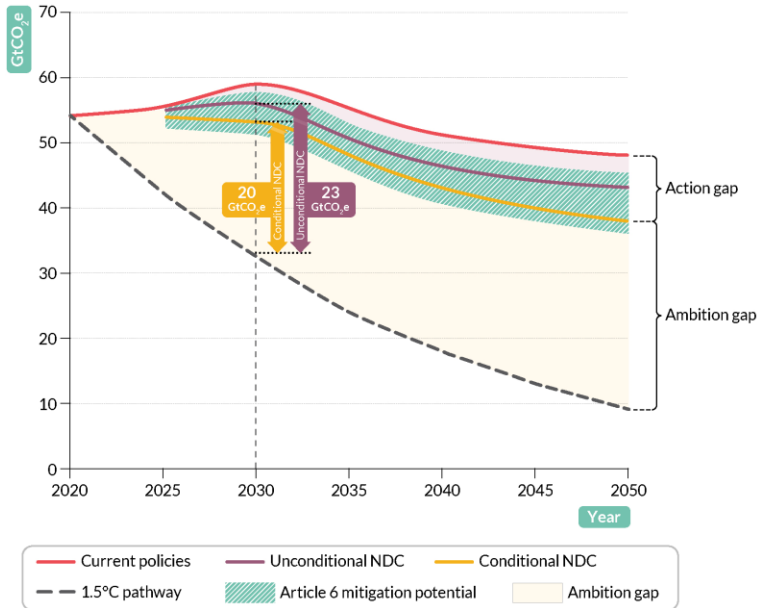
Gabriel Labbate
Head, Climate Mitigation Unit
Climate Change Division; UNEP

Background - Improved Cookstoves/Biodigesters

- **2.3 billion people** lack access to clean cooking (IEA, 2022)
- Biomass (wood/agricultural residues/dung/charcoal), kerosene and coal are the fuels that **typically cause the most harm** to people and planet
- Improved cookstove projects either introduce a more **efficient, cleaner burning** stove using the same fuel, or introduce a new stove and fuel (pellets/LPG/alcohol)
- Biodigester projects introduce a **new stove and fuel**
- High quality projects **reduce fuel consumption, reduce GHGs and indoor air pollution** (and may create jobs, save money, save cooking & collection time etc)



Carbon markets closing the emissions gap with non-carbon benefits



- UNEP's Emissions Gap Report (2022)⁸ estimates an **ambition gap** (what countries have pledged vs what is needed to achieve the 1.5°C) of **23 GtCO₂e** for unconditional NDC targets and **20 GtCO₂e** for conditional targets.
- **Contribution to close the Gap:** Full implementation of carbon market mechanisms could save **40–60% of the cost of NDC** implementation and could contribute to reduce **4–5 GtCO₂eq per year by 2030**, hence closing the global emissions gap^{2,6,7}.

Sources: IETA, University of Maryland and CPLC; Fujimori et al.; Edmonds, et al.; IKI SPAR6C, "Promoting ambition and transformational change (Guide 1)" – Forthcoming. For illustrative purposes only, building on UNEP.

Improved Cookstoves/Biodigesters in the VCM

Cookstoves (&biodigesters) have, historically, been subject to scrutiny and assertions of over-crediting, which may result from:

- fNRB (fraction of non-renewable biomass)
- Emission Factors
- Fuel Consumption measurements (numerous approaches are available)
- Usage/adoption/stacking (numerous approaches, lack of standardisation)

Projects are complex and involve large numbers of units distributed in remote, often rural locations

- Cookstoves and Biodigesters are **7.4%** of the VCM by issued volume (**127M**) and **18.6%** of the projects

Next steps

- On Friday March 7th, the IC-VCM will release its assessment of several cookstoves methodologies.
- Methodologies that receive the CCP label are of high integrity.
- Make sure to use CCP-labeled methodologies to finance cookstoves when tapping the carbon market.
- UNEP can be a source of neutral advice when in doubt.



Thanks!

Gabriel Labbate
Gabriel.Labbate@un.org