Solar Cooking and National Commitments

REVIEW OF NATIONAL DETERMINED CONTRIBUTIONS (NDCs) TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

2025

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This report was prepared by Solar Cookers International, a 501©3 organization headquartered in Sacramento, CA, U.S.A.

Data listed in this document was sourced from the UNFCCC NC Database (https://unfccc.int/NDCREG)

Front Cover: Kakuma Refugee Camp resident attends a solar cooking training facilitated by Eco-Impact Hub CBO, in Kenya. Programming is made possible through collaboration with Solar Cookers International.

Photo credit – Eco-Impact Hub, CBO

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CLEAN, SUSTAINABLE COOKING

Examining how Nationally Determined Contributions (NDCs) support the transition to clean, sustainable cooking.

Every day, families gather to cook, and that simple act affects health, forests, livelihoods, and the climate. Cooking with clean energy can nourish both people and the planet. Yet, according to the World Health Organization, ~2.1 billion people still rely on polluting fuels — a practice that harms health, especially for women who bear the brunt of cooking tasks, degrades the environment, and drives greenhouse-gas emissions.

Clean, zero-emission solutions are available, but they remain too often absent from national climate plans. This report shows how Nationally Determined Contributions (NDCs) can change that by placing durable, solar cooking solutions at the center of national strategies for emissions reduction and resilience.

NATIONALLY DETERMINED CONTRIBUTIONS

An NDC is a national climate action plan submitted under the Paris Agreement. NDCs set out how a country intends to reduce greenhouse gas emissions and adapt to climate impacts. Countries set their own targets, allowing NDCs to reflect national needs, priorities, and capacities. Measures in NDCs span sectors, from energy systems and forest management to food systems, and many also identify gaps where finance, partnerships, and technical assistance from the international community are needed.

When NDCs include measurable, time-bound cooking targets, they become a lever for transformational change in household energy: channeling policy, public finance, and private investment toward zero-emission solutions.

Some NDCs include incremental measures such as expanded LPG. While such steps may play a transitional role, they can be costly and may prolong dependence on fossil fuels. The next generation of NDCs presents an opportunity to move beyond transitional fuels toward lasting, renewable solutions.

This year many Parties are preparing their third-round NDCs (NDC 3.0). These updates should be informed by the outcome of the First Global Stocktake and are expected to be progressive, demonstrating increased ambition in mitigation, adaptation, and support. NDCs 3.0 are a chance to translate the Stocktake's findings into stronger, clearer, and more forward-looking national plans that accelerate the shift to clean cooking for all.

Parabolic solar cookers ready for distribution in Central African Republic. Photo credit: Ulrich Lassida

THE SOLUTION

Solar thermal cooking produces no direct emissions and supports both mitigation and adaptation goals. Solar cookers convert sunlight into thermal energy to cook food, pasteurize water, and dry produce — reducing demand for wood and other polluting fuels, cutting emissions, and lowering smoke exposure. As an adaptable, locally deployable technology, solar cooking can form part of a country's clean-cooking pathway in NDCs and related climate and development plans.

The scale of the challenge is staggering. An estimated 2.8–3.3 million deaths each year are linked to household air pollution driven largely by polluting cooking fuels. Even partial adoption of solar cooking could avoid millions of tonnes of CO_2e and save billions of US dollars in health and environmental costs.

In response to this urgent challenge, Solar Cookers International (SCI) applies decades of scientific and practical expertise to advance clean, solar-powered cooking solutions worldwide. Since 1987, SCI has worked with partners and communities worldwide to reduce energy poverty and support climate goals. SCI holds special consultative status with the UN Economic and Social Council and provides technical input aligned with the Sustainable Development Goals.

The following pages highlight language from national NDCs and point to opportunities to strengthen references to clean, sustainable cooking by country.

The need to cook food for nourishment is fundamental and requires the use of energy in some form. In light of…the inability for low-income families to purchase the gas needed for cooking, the utilization of a natural source, in the form of solar energy, that can be converted into heat was a viable alternative

- United Nations Development Programme (UNDP https://tinyurl.com/UNDPAssistance

METHODOLOGY

For this report, Solar Cookers International analyzed the most recent Nationally Determined Contributions submitted by each Party to the Paris Agreement. The review focused on how countries address cooking energy, including mitigation and adaptation goals, measures, and initiatives that could indicate potential for solar cooking adoption.

While the focus is on the most recent NDCs, earlier submissions were referenced when they provided relevant context or reflected continuity in national priorities. All NDCs are publicly available through the United Nations at https://unfccc.int/NDCREG.

Parties were noted as recognizing the cooking sector if their NDC mentioned cooking activities or the resources households devote to food preparation. However, NDCs that did not identify clean cooking solutions, specific targets, or focused narrowly on a single transitional technology were not classified as especially receptive to solar cooking initiatives.

Parties were categorized as receptive if their NDCs explicitly mentioned solar cooking or renewable energy in relation to cooking. NDCs were considered potentially receptive when they described multipronged or technology-neutral approaches, identified relevant targets, called for knowledge sharing or capacity building in the cooking sector, or described specific supportive policies or initiatives.

To illustrate these findings, this report includes selected excerpts from the NDCs themselves, highlighting how countries currently frame cooking energy within their climate strategies.

KEY FINDINGS

Of the 196 NDCs, **77 explicitly mention cooking or cookstoves,** reflecting growing recognition of clean cooking's role in achieving climate goals. Among these, **53 include language that may support solar cooking solutions,** highlighting opportunities to integrate renewable cooking technologies into national strategies.

Five of the 53 updated NDCs specifically reference solar cooking, signaling awareness of its potential to reduce emissions, ease pressure on forests, and improve public health. **Central African Republic** and **Lesotho** stand out for setting clear targets related to solar cooking.

> **Scaling up access and adoption of solar cooking technology will reduce quantities of biomass and kerosene used for cooking**
>
> **SOLAR COOKING TARGET- Unconditional: 8,400 solar cookers by 2030 Conditional: 9,450 stoves by 2030**
>
> **-Lesotho, NDC, 2025**

> **[Energy sector objectives include] Penetration of improved stoves in households, 5% in 2025 and 10% in 2030; 5% of household equipped with solar cookers in 2025 and 10% equipped in 2030 (targets: 50% female heads of household)**
>
> **-Central African Republic, NDC, 2025**

Clean cooking appears in NDCs as a **cross-cutting solution** linked to multiple priorities. Common themes include reducing dependence on fuelwood and forest degradation, mitigating household air pollution, and addressing gender inequities tied to women's unpaid labour and time use. Many NDCs also underscore the importance of off-grid energy solutions to expand energy access—an area where solar cooking can play a transformative role.

Mali program participants transporting their new solar box oven. Photo credit: Emmanuel Théra

AT A GLANCE

77 PARTIES

Acknowledge the cooking sector as an area of concern or potential development.

53 PARTIES

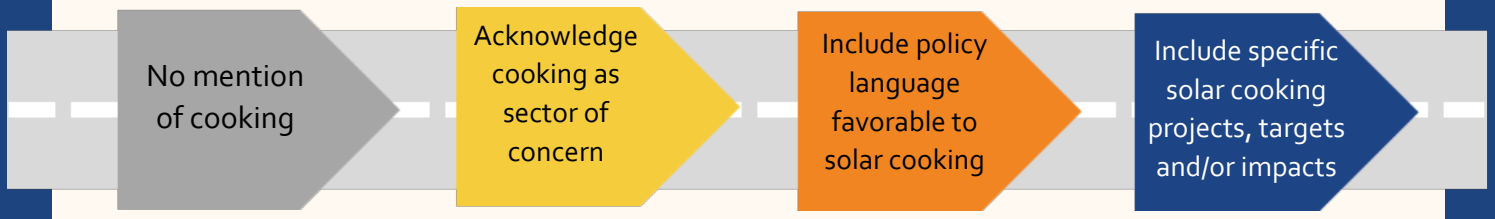
Include language that may be favorable to solar cooking interventions.

5 PARTIES

Specifically identify solar cooking as a clean cooking solution

NEXT STEPS

Including supportive language in policy documents can help pave the way for collaboration, funding, and project opportunities. Ideally, NDCs would explicitly reference solar cooking projects, goals, or impacts. However, broader or more general language can still serve as an important early step toward no-emission cooking solutions.



Decision-makers, civil society, and individuals can each play a role in moving parties further along this path by taking the recommended actions below.

	DECISION MAKERS	CIVIL SOCIETY & INDIVIDUALS
If your NDC does not mention cooking:	Consider including language that recognizes the impact cooking and cooking-related activities, such as harvesting firewood, has on climate change.	Encourage decision makers to include language that recognizes the impact cooking and cooking-related activities, such as harvesting firewood, has on climate change.
If your NDC mentions cooking but does not contain language that is favorable to solar cooking:	Strengthen existing NDC language to highlight clean cooking solutions that utilize renewable energy sources	Encourage decision makers to strengthen existing NDC language to highlight clean cooking solutions that utilize renewable energy sources
If your NDC includes language that is favorable to or specifically mentions solar cooking:	**Talk to Solar Cookers International to learn more about opportunities for collaboration and unlocking support for solar cooking initiatives**	**Encourage decision makers to commit resources to solar cooking initiatives. Include solar cooking in your organization's efforts.**

RESOURCES

Understanding and promoting solar cooking starts with exploring the right resources. By learning the fundamentals and reviewing a summary of its potential economic impact in your country at https://solarcookers.org/resources/download, you can see how solar cooking contributes both socially and economically.

Around the world, solar cooking is gaining traction, and the SCI Wiki at https://solarcooking.org provides a window into this global movement, highlighting organizations, manufacturers, projects, and events in your region.

Health considerations are equally critical: the World Health Organization (WHO) at https://who.int/news-room/fact-sheets/details/household-air-pollution-and-health offers essential insights into the impact of household air pollution on health, underscoring why clean cooking solutions matter.

Program participants attend a training on heat-retention basked, a complementary technology used to keep solar cooked food warm for hours. Photo credit: Emmanuel Théra

PROPOSED LANGUAGE

If a party seeks to reduce CO_2 emissions by cutting reliance on fossil fuels (including LPG) and biomass (wood, charcoal, animal, and crop waste) for cooking, SCI encourages highlighting clean cooking opportunities in policy documents. We recommend working with technical experts to identify strategies and set clear targets, such as the number of cookers deployed or the amount of related CO_2e reductions a country aims to achieve. Broader language can also be a powerful tool to initiate activities and unlock support. For example:

> Goal: Transition from biomass and fossil fuels for cooking to renewable energy sources, including solar thermal cooking solutions.

Addressing deforestation, smoke-related health risks, women's empowerment, and renewable energy targets further reinforces clean cooking initiatives and aligns with global priorities in health, gender equity, and environmental sustainability. As a cross-cutting solution, solar cooking intersects the energy transition, sustainable development, and climate justice, making it relevant across policies. By integrating solar cooking into NDCs and national strategies, parties can advance clean energy goals while delivering tangible benefits to communities, forests, and public health, turning a shift in cooking practices into meaningful climate action.

Program participants gather for a solar cooking demonstration in Tenimbala, Mali. Photo credit: Emmanuel Théra

Nationally Determined Contribution Analysis

Year	Year of the most recent NDC publication, includes new and updated NDCs
%	Percentage of the population dependant on polluting fuels for cooking
C	**Cooking** – Acknowledges the cooking sector as an area of concern or potential development
CC	**Clean Cooking**- Includes language that may be favorable to solar cooking, such as references to clean cooking activities, targets, strategies, or support needed to achieve them
SC	**Solar Cooking –** Specifically mentions solar cooking

Afghanistan	2016	61.4%	C	CC	Clean cooking is a sector gap. There is a need to reduce rural peoples' dependence on fuel for cooking and heating by building capacity and improving technology. (Pg 8, 2016)
Albania	2021	13.9%	C		In rural areas firewood is used for cooking and water heating (Pg 32, 2021).
Algeria	2021	0.3%			
Andorra	2025				
Angola	2025	49.8%	C	CC	only 9.2% of rural households use clean cooking fuels, compared to 79% in urban areas (pg. 14, 2025) Women and girls are often more exposed to specific health risks due to their caregiving roles and the nature of their daily tasks…cooking with biomass fuels contributes to higher rates of respiratory illnesses… It is therefore important that health adaptation measures consider these dynamics to ensure a comprehensive and inclusive response to climate-related health challenges (Pg 54, 2025) Angola's energy landscape also heavily relies on biomass, particularly charcoal and firewood, for domestic energy consumption. According to the UNFCCC Biennial Update Report and FAO data, biomass accounts for more than 60% of household energy consumption, especially in rural and peri-urban areas (Pg 19, 2025) The persistent use of biomass in rural areas continues to raise environmental concerns, particularly in terms of deforestation on the outskirts of villages and small towns (Pg 22, 2025) [National Electricity Fund (FUNEL)] Support[s] the distribution of improved solar lanterns and ovens, manufactured in Angola (Pg 70, 2021)

Antigua and Barbuda	2021	0% C	"Relies on liquid petroleum gas for cooking (pg31. 2021) A key priority is removing barriers that inhibit female-headed households and micro, small and medium enterprises (MSMEs) from accessing back-up renewable energy generation (pg9, 2021)"
Argentina	2021	0.1%	
Armenia	2021	1.2%	
Australia	2025	0%	We are on track to deliver over $3 billion towards global climate finance efforts over 2020–25. We have actively integrated climate change considerations into our International Development Policy. In 2023, the Australian Government set a goal that 80% of new bilateral and regional investments valued at over $3 million must have a climate change objective by 2028–29. (Pg 12, 2025)
Austria	2023	0%	
Azerbaijan	2021	1.1%	
Bahamas	2022	0% C	Waste can be a useful resource to produce energy (e.g., organic waste can produce cooking gas in household digesters, methane gas can be collected from landfills) (Pg 60, 2022)
Bahrain	2021	0%	
Bangladesh	2025	71.6% C CC	By 2035, mitigation in energy will deliver 69.84 $MtCO_2eq$ reduction. Measures include renewable expansion (solar, wind, biogas) ...rooftop solar, clean cooking (Pg i, 2025) Conditional Actions by 2035: Promote modern cooking systems - 20% of Cooking Energy Mix will be energy-efficient modern electric cookstoves; 20% of Cooking Energy Mix will be energy efficient improved cookstoves (ICS); 50% of Cooking Energy Mix will be energy efficient LPG (Pg 15, 2025) Proposed Actions: Promote women/youth entrepreneurship in solar, biogas, and clean cooking.- Provide targeted training and finance for women/PWDs in renewable and green manufacturing sectors; Expected Outcomes: Increased women/PWD participation in the clean energy workforce. Improved household health and safety through clean cooking. [Pg 39, 2025] [Priority Actions in Health] Health System Infrastructure and Operations: Encourage clean air and clean cooking initiatives around health and education facilities to reduce local pollution and improve child respiratory health (Pg 44, 2025) Credit Guarantee Schemes: Bangladesh Bank has launched two credit guarantee schemes. Green Credit Guarantee scheme will support clean brick and block production, industrial rooftop solar projects, biogas and clean cooking solutions projects with credit

		guarantee to encourage banks and FIs to provide finance in new cleaner technologies. (Pg 54, 2025) Voluntary Carbon Market (VERRA): A growing number of mitigation projects in Bangladesh are also being registered under voluntary carbon market mechanisms, particularly through the Verified Carbon Standard (VCS) managed by VERRA. These projects, which include renewable energy, improved cookstoves, and forestry initiatives, provide an additional avenue for mobilizing finance and enhancing the transparency of emission reductions beyond compliance mechanisms. (Pg 60, 2025)
Barbados	2025 0%	
Belarus	2021 0.3%	
Belgium	2023 0%	
Belize	2025 17.1% C CC	Aim is to achieve a reduction of fuel wood consumption by 27%-66%, depending on the technology, the duration of cooking and the replacement technology. (Pg 4, 2016)
Benin	2021 94% C CC	Promotion of access for 275,000 new households to cooking equipment using domestic gas (Pg 21, 2021) Support for the organization and development of internal markets for the manufacturing and marketing of high-performance cooking equipment cooking (improved stoves using wood energy; butane gas cooking equipment). (Pg 31, 2021) Projects to promote climate change mitigation measures at household level and the promotion of renewable energies and efficient economic stoves and pressure cookers in the commune of Dassa-Zoumé (Pg 31, 2021)
Bhutan	2021 8.4%	
Bolivia	2025 9.4%	
Bosnia and Herzegovina	2021 60.5%	
Botswana	2024 33.6%	
Brazil	2024 3.5% C CC	In buildings, Brazil will seek progress in terms of energy efficiency and the evaluation of alternatives to the use of liquefied petroleum gas (LPG) and natural gas for cooking, such as biomethane. (Pg 16, 2024) Brazil still faces pressing challenges in promoting access to clean technologies for cooking food (with around 6.7% of the country's

		population still using firewood and other rudimentary methods in 2022), with considerable regional levels of inequality still being recorded in the country. To address this issue, Brazil has proposed the creation of the LPG for All Program (Bill No. 3.335/2024), which aims to guarantee access to LPG cylinders for more than 20 million families in the coming years. (Pg 32, 2024)
Brunei Darussalam	2020 0%	
Bulgaria	2023	
Burkina Faso	2021 83% C CC	[Adaption projects include] 540,000 improved cook stoves are produced and distributed, at least 50% in urban and semi-urban areas. [and] 80% of dolo beer brewers use an improved cook stove…This contributes to a reduction of YY% in the demand for firewood. (Pg 16, 2016) The "improved cookstove project" is considered to have enormous socioeconomic impact but is challenging because it is not profitable and requires external investment… Use of the improved cook stove makes it possible to save 15% to 45% of the energy used in cooking; The cooking speed resulting from the use of an improved cook stove allows the user of the stove to save 50% to 75% of the original time devoted to cooking; improved cook stoves permits households and other users to reduce their exposure to respiratory diseases caused by smoke or the inhalation of carbon dioxide or carbon monoxide cooking, (Pg24, 2016)
Burundi	2021 99.9% C CC	Burundi has committed to …replacing 100%, by 2030, all carbonization ovens and all traditional domestic cookers. (Pg 3, 2020) In the residential sub-sector, the fuels used are wood energy, biogas made up of plant or agricultural waste for cooking, heating and lighting and oil for lighting by rural households. As for urban households, the fuels used are charcoal for cooking and kerosene for partial lighting. (Pg 21, 2020) [National priorities include] biogas digesters in schools to boarding school to compensate for usage wood for cooking. (Pg 43, 2020) [Energy Sector Priority Projects include] Strengthening the capacities of improved cookstove manufacturing technicians and organize exhibition fairs for improved cookstoves to develop new markets and establish contact with potential customers (Pg 52, 2020)
Cabo Verde	2021 16.1% C	[Firewood is the second most consumed fuel] …About 20% of households use wood as the main energy source for cooking. The vast majority (85%) of the wood used is collected mainly by women and only 13% is purchased. (pg. 14, 2021)

		[Mitigation Contribution:] Promote farm biogas units as a means to recover nutrients and improve soils, facilitate farm hygiene and health, substitute wood or fossil gas for cooking or electricity for lighting (Pg 23, 2021) The most frequently used indicators when assessing the effects of climate change on the disease profile in Cabo Verde are those related to... respiratory diseases caused by cooking stoves (pg. 44, 2021)
Cambodia	2025 42% C CC	This measure aims to transform Cambodia's household and institutional cooking practices by promoting widespread adoption of energy-efficient cookstoves and clean cooking solutions (e.g., improved biomass stoves, biogas, LPG, and electric induction). Targeting 72.8% of rural households still reliant on traditional wood/charcoal stoves (NIS 2021), the initiative addresses both forest conservation and public health by reducing indoor air pollution. The measure will target a 30% clean cookstove adoption by 2030 and 60% by 2035 GHG ER= 2.129 $MtCO_2e$ Clean cooking technologies—such as biogas digesters, LPG systems, and electric induction cooktops—are already in use. Digital tools, including mobile apps for maintenance and carbon credit tracking, are helping to ensure these technologies are used effectively and sustainably. (Pg 70, 2025) BASELINE: (Type of fuel/Cambodia/Phnom Penn/Other urban/Rural) Firewood/49.9/4.6/35.8/65.8 Charcoal/6.7/2.4/8.6/7 LPG/42.8//92.5/54.8/26.7 Publicly-provided electricity/Citypower/0.5/0.4/0.6/0.4 TARGET: -National: 60% - Rural: 50%, focus: Biogas/LPG + efficient biomass stoves - Phnom Penh: 98%, focus: LPG/electric induction saturation - Other urban: 95%: focus: LPG expansion + electric transition (Pg 75, 2025) Fuelwood is one of the key drivers of forest loss in Cambodia. (Pg 25, 2025)
Cameroon	2025 69.3% C	[Energy Sector Measures Include] Production and popularization of improved stoves and natural gas (methane): Distribution of 500,000 improved stoves in the Soudano-Sahelian zone (Pg51, 2021)
Canada	2025 0%	
Central African Republic	2022 99% C CC SC	**[Energy sector objectives include] Penetration of improved stoves in households, 5% in 2025 and 10% in 2030; 5% of household equipped with solar cookers in 2025 and 10% equipped in 2030 (targets: 50% female heads of household) (Pg 14, 15, 2021)**
Chad	2021 90.3% C CC	National energy consumption is dominated at 96.5% by the consumption of wood fuels...This overexploitation of wood resources for household uses combined with climate change has led to deforestation of more than 90%...As the main source energy for

		cooking is wood or charcoal, the vulnerability of wood energy can have a considerable impact on households that are dependent on it, especially the poorest population. (Pg30, 2021) The actions in the following areas present an urgent need for capacity building and technology transfer…Promotion of Improved Stoves and clean cooking (Pg 40, 2021)
Chile	2025 0% C	Reducing black carbon emissions generates a series of important co-benefits at the local level, in terms of improved air quality, reducing the impacts on people's health (preventing deaths and respiratory, cardiovascular, and other diseases) and the costs associated with these health impacts. Additionally, this pollutant, if deposited in the cryosphere, can accelerate the melting of glaciers and snow…its main sources are diesel consumption for land transportation and firewood use for residential heating and cooking. (Pg 23, 2025)
China	2021 11.3%	
Colombia	2025 8.2% C CC	[Mitigation measures include] Replacing traditional wood stoves with efficient stoves: reducing the use of firewood in rural homes through the implementation of efficient stoves … 1,000,000 efficient firewood cooking stoves (2021-2030) (Pg43, 2020) [Territorial measures include] implementation of eco-efficient stoves and/or solar energy systems for cores towns [in Putumayo] (Pg 52, 2020) and Implementation of alternative energies (solar, wind, biomass) eco-efficient stoves, promotion and technology transfer actions for the reduction of deforestation. [in the Valley of the Cauca] (Pg 54, 2020)
Comoros	2021 89.6% C	Better access to renewable energies with adapted technologies would allow access to energy services for lighting, cooking and productive activities which would reduce their workload and free up time which they could devote to other tasks, including income-generating ones. (Pg 11, 2021)
Congo	2021 59.9% C	extend the use of improved stoves (20% in 2025 and 50% in 2035) (Pg7, 2015) the extension of improved charcoal stoves, as well as the production of improved millstones by charcoal makers should make it possible to significantly reduce consumption. of energy. (Pg 10, 2015)
Cook Islands	2016 25.3%	
Costa Rica	2020 3.4%	
Côte d'Ivoire	2022 55.9% C CC	emissions of air pollutants such as black carbon, nitrogen oxides and fine particulate matter can be significantly reduced through the implementation of mitigation measures including switching to cleaner fuels for cooking, (Pg 18, 2022)

		Development of sustainable domestic energy solutions for the cooking needs of populations; Actions: Reforestation with fast-growing species for wood energy; Promotion of improved stoves and Promotion of charcoal alternatives through the use of agricultural biomass; Co-Benefits: Diversification of income for local communities, Job creation Green, Improvement of living conditions of women in rural areas, Reduction of GHG emissions (Pg 7, 2016)
Croatia	2023 0%	
Cuba	2020 5.1% C	[for the period of 2031-2035] Goal Overview: The goal is to increase efficiency by replacing inefficient lighting, water heating, cooking, solar pumping, and hydraulic efficiency equipment in water conduction and distribution systems, steam boilers, and others with more efficient equipment, leading to an increase in avoided energy consumption (from 231,100.00 tep/year in 2030 to 329,000.00 tep/year in 2035).(Pg 42, 2025) In the period for 2031-2035... forest degradation will be reduced by 75 kha (pg. 42, 2025)
Cyprus	2023 0%	
Czechia	2023 0%	
Democratic People's Republic of Korea (North)	2019 85.5% C CC	[Mitigation measures] To use biogas from livestock manure and domestic sewage instead of coal or firewood for cooking; To replace conventional wood stoves for cooking with efficient wood stoves at rural households; To replace conventional coal stoves for cooking with efficient electric cookers at the households; (Pg 9,10, 2016)
Democratic Republic of Congo	2021 95% C CC	Since 2009, the electricity policy has been technically validated by all stakeholders. Current efforts are focused on developing clean cooking strategies. (Pg 25, 2023) Also, the DRC intends to implement a national energy framework policy specifically targeting clean cooking strategies (LPG, electric stove, etc.) (Pg 46, 2021) [Action] Transition to energy-efficient cooking [Indicator] Number of households using biogas and LPG technologies; and briquettes made from agricultural residues or biodegradable household waste. (Pg 54, 2021)
Denmark	2023 0%	
Djibouti	2016 90% C	[Priority mitigation measures under study or pending funding include] Reduction of fuel wood consumption for cooking: Decrease in the consumption of wood for cooking, estimated at 56,100 tonnes each year, through the replacement of 1,000 units by systems that use LPG.
Dominica	2022 13.8%	

Dominican Republic	**2020**	**6.5%**		
Ecuador	**2025**	**5.3%**	C	[Initiatives include] Program of Efficient Cooking- Replacing Liquefied Petroleum Gas (LPG) stoves with induction cookers (Pg 18, 2019)
Egypt	**2023**	**0.1%**		
El Salvador	**2022**	**5.6%**		
Equatorial Guinea	**2022**	**77.9%**		
Eritrea	**2018**	**88%**	C CC	As adaptation strategy, the government of Eritrea has already taken concrete measures to introduce energy saving cooking stoves for rural households. These stoves have efficiency of about 26% compared to the traditional ones with 10%. This calls for further research and development to improve its efficiency. Besides reducing the pressure on the forest resources, the advantages of these stoves lie in the use of waste biomass as well as in securing the health and wellbeing of women and children. (Pg 29. 2018) CO_2 reduction options include introducing efficient wood stoves and replacing wood stoves with LPG stoves. (Pg 16, 2019)
Estonia	**2023**	**0%**		
Eswatini	**2025**	**49.7%**	C CC	OUTCOME: Universal Access to Clean and Efficient Cooking Solutions for Health, Equity and Climate Action. TARGET: 72.19 $ktCO_2eq$–Efficient cooking; 11.54$ktCO_2eq$ - Clean Cooking; Total: 83.74 $ktCO_2eq$ (CO_2, CH_4 and N_2O) ACTIONS PLANNED: Promote a large-scale transition from traditional biomass and inefficient cooking technologies to clean and energy-efficient alternatives countrywide, with a 50% reduction in the share of inefficient cooking technologies by 2035. 100% access to affordable clean modern energy for cooking at household level by 2035 (Pg 5, 2025) The country's energy sector is especially precarious: Eswatini imports 60–70 percent of its electricity, largely from South Africa and Mozambique, and this imported energy is carbon intensive, increasing the nation's indirect emissions profile while exposing it to external shocks (Pg 2, 2025)
Ethiopia	**2025**	**92.9%**	C CC	Adaptation measures seek to reduce burdens on women, such as through closer water points and cleaner cooking, and enhance food security for smallholders (Pg 17, 2025) The country will prioritize renewable energy systems, battery storage, grid modernization, electric vehicles, efficient industrial processes, and clean cooking to drive down emissions. (Pg 19, 2025)

				By 2025, over 580,000 off-grid solar systems were installed countrywide, enhancing access to clean and sustainable energy in remote areas of the country to address underserved communities. (Pg 5, 2025) [Policy interventions include] Reducing residential biomass use 1.) Fuel Switch: shift from unsustainable biomass energy demand to electric stoves, renewable biofuels (eg. residues) 2.) Biomass efficiency: improved cookstoves. (Pg 12, 2021)
European Union	**2023**			
Fiji	**2020**	**45.9%**		Energy in Fiji is supplied in three main forms: i) biomass/wood for cooking in rural areas
Finland	**2023**	**0%**		
France	**2023**	**0%**		
Gabon	**2022**	**8.6%**		
Gambia	**2021**	**98.4%**	C CC	when biogas and improved cookstoves further reduce firewood demand, the wood from agroforestry operations can be used for timber and as a substitute for carbon-intensive construction materials (Pg 14, 2021) National Energy Efficiency Action Plan (NEEAP) of The Gambia (2015-2020/2030) provides scenarios for the contribution of energy efficiency in the electricity and cooking sectors…Thus, measures and activities are proposed in… (e) cooking initiatives (Pg 32, 2021) [Mitigation measures include] Upscaling deployment of fuel-efficient biomass combustion stoves in residential applications and commercial/industrial applications. (Pg 14,2021)
Georgia	**2021**	**6.8%**		
Germany	**2023**	**0%**		
Ghana	**2021**	**67.2%**	C CC	Some of the measures, including improved cookstoves… are expected to reduce black carbon emissions for better public health outcomes(Pg 14, 2021) [Policy actions include] expanding the adoption of market-based cleaner cooking solutions [which supports the following socio-economic outcomes] social inclusion, sustainable energy transition, and smart communities. [This action is also highly gender responsive and is associated with 4,214.2 kt emission reduction]. (Pg26, 2021)
Greece	**2023**	**0%**		

Grenada	2020 15.8%	
Guatemala	2022 53.5%	
Guinea	2021 99% C CC	The National Climate Change Strategy provides for the introduction of at least 1 million improved stoves by 2030 and the deployment of butane gas, and "assumes that this action will halve the quantity of firewood extracted from the forest" (Pg 21, 2021) In particular, Guinea wishes to engage in these cooperative approaches to develop the production of electricity from renewable energy sources, notably small hydroelectricity, photovoltaic solar and wind power, as well as the deployment of improved cookstoves among of 50% (conditional objective) of Guinean households to significantly reduce the pressure on forest resources and the resulting losses of remarkable biodiversity. (Pg 37, 2021) The government of Guinea has also undertaken the substitution of a part of the biofuels by butane gas through a promotion fund, a gas bottling plant and subsidies. Combined with biogas, the diffusion of this modern cooking method aims national capacities of 40 kTep in 2030. (Pg 29, 2021)
Guinea Bissau	2021 99.2% C CC	[Expected measures include] The large-scale dissemination of improved stoves for cooking to reduce fuelwood consumption. (Pg 17, 2021) projects dealing with rural development in GB include gender focused adaptation components such as RE facilities for irrigation and diversification of agricultural production by women small-scale farmers (NGO ADPP, www.adpp-gb.org), and activities for cleaner cooking or against deforestation (Pg 30, 2021)
Guyana	2016 0% C	The Government of Guyana will continue to work closely with farmers in agricultural areas across Guyana to encourage the use of bio-digesters to reduce waste, produce biogas and provide affordable, healthy and efficient cooking means at the household level. (Pg 10, 2022)
Haiti	2022 95.5% C CC	[Emissions] could be mitigated by focusing on different alternatives such as: using energy-efficient stoves to replace traditional fireplaces... (Pg 13, 2022) Mitigation measure: Efficient wood stoves, Efficient charcoal stoves, LPG stoves replacing wood stoves. 1000 each. (Pg 27, 2023)
Holy See (Vatican)	2025	
Honduras	2025 49.7% C CC	Among the measures that are planned to be carried out for the implementation of the inclusion component social and gender equality, the following stand out: Involvement of women, PIAH (indigenous peoples and Afro-Honduran people) and youth in the design and implementation of improved stove projects, promoting their training in construction. (Pg 15, 2021)

		The purpose of ENAEM (Estufas Mejoradas y la Estrategia Nacional para la Adopción) is to identify the lines that lead to the transition and sustained use of clean cooking technologies by the Honduran population. The direct benefits of the adoption of improved stoves can be quantified in terms of: i) the reduction in firewood consumption in homes, associated in turn with less pressure on the forest resource, ii) the improvement in indoor air quality , reducing the risk of respiratory diseases, iii) the optimization of resources at home, allowing time and money, which were previously used for access to energy, to be invested in activities that generate value and contribute to the reduction of poverty. (Pg 36, 2021)
Hungary	2023 0%	
Iceland	2025 0%	
India	2022 23.3% C CC	[India accounts for] about 30% of the global population relying on solid biomass for cooking and 92 million without access to safe drinking water. (Pg 5, 2015) India has launched 'Direct Benefit Transfer Scheme' for cooking gas, where subsidy will be transferred directly into the bank accounts of the targeted beneficiaries. In fact, over the past one year India has almost cut its petroleum subsidy by about 26%. (Pg 27, 2015) 'Give It Up' Campaign launched to encourage citizens to give up subsidy on cooking gas to meet the needs of the truly needy citizens, thereby promote shift away from inefficient use of biomass in rural areas. (Pg 36, 2015)
Indonesia	2022 9.4% C	Construction of additional natural gas pipeline is intended to substitute the use of kerosene for cooking in residential and commercial sectors. (Pg 25, 2021) [Mitigation Measures include] - Induction Electric Stove (Pg 24, 2021)
Iraq	2021 0.5%	
Ireland	2023 0%	
Israel	2023 0%	
Italy	2023 0%	
Jamaica	2020 7%	
Japan	2025 0%	

Jordan	2021	0.6%			
Kazakhstan	2023	5.8%			
Kenya	2025	68.4%	C	CC	The sequenced ripple effect of affordable and reliable energy is poised to drive the NDC mitigation goal of decarbonizing the transport by enabling transition to e-mobility, green manufacturing, climate smart agriculture, e-cooking, sustainable waste management, while building resilience of climate vulnerable sectors (Pg iii, 2025) While Kenya has abundant renewable energy resources such as geothermal, solar, wind and hydro for electricity generation, more than one half of Kenya's households use wood fuel for cooking. (Pg 6, 2025) Key priority mitigation initiative: Adoption of clean and efficient energy use for the transport, industry, agriculture and domestic sectors including clean cooking. (Pg 13, 2025) During the periods of extreme drought, some of the Kenyan women and girls walk up to 30 kilometers in search of water and firewood, increasing their exposure to gender based violence. (Pg 5, 2025) deforestation and forest degradation have been exceeding the reforestation rates (Pg 5, 2025)
Kiribati	2020	83.6%	C		Greenhouse gas emissions are the result of combustion of imported fossil fuels in the energy sector for: LPG and kerosene for cooking (pg. 8,2015)
Kuwait	2021	0%			
Kyrgyzstan	2025	20.4%			Bioenergy (largely fuelwood in rural areas) also accounted for a substantive share of the primary energy mix highlighting continued reliance on traditional energy practices (Pg 83, 2025)
Lao PDR	2021	88.9%	C		Mitigation targets include Introduction of 50,000 energy efficient cook stoves which will reduce the use of non-renewable biomass for combustion(Pg 5, 2020) Introduction of 50,000 energy efficient cook stoves - GHG mitigation target:50 ktCO2e on average per year between 2020 and 2030; Implementation across three provinces: Vientiane Capital, Savannakhet, and Champasack. (Pg 18,2020)
Latvia	2023	0%			
Lebanon	2025				climate impacts deepen gender inequalities by increasing women's unpaid labor (Pg 27, 2025)
Lesotho	2025	46.2%	C	CC	SC	Key targets for mitigation include a 10% GHG emission reduction ... The key sectors/actions targeted for mitigation include: Energy - Improved government direction and policy certainty for markets through the development of policy and strategy documents;

		increased access to renewable electricity, reduction of reliance on biomass for cooking and heating; and increased awareness of the market through the provision of information and awareness campaigns (Pg 6, 2025) In 2017, the residential sector was the largest contributor to Lesotho's energy sector emissions accounting for 1,901 ktCO2e, or over 66% of all energy emissions. Part of the reason for this high number is the high reliance on fossil fuels and traditional fuels for basing home end-uses such as cooking…mitigation in the residential sector aims to: Substitution of lower quality (higher emissions) energy technologies and reduction of traditional household fuels, especially firewood, plants residues, animal dung, and illuminating paraffin for the areas that cannot be effectively electrified: This objective can be addressed through accelerating the delivery of cleaner sources of energy to remote villages and rural populations. This objective also serves other important goals of reducing deforestation and eliminating negative health effects of smoke inhalation and accidental household fires. (Pg 42, 2025) Implementation of efficient wood stoves to replace inefficient traditional cooking stoves that require much more wood and charcoal than necessary. This measure would entail an increase in current government initiatives by putting adequate policies in place to promote this mitigation option. The projected number of efficient stoves is 1,250 in 2025 and 9,030 in 2030 under the unconditional scenario. (Pg 43, 2025) Replacing wood stoves with liquefied petroleum gas (LPG) stoves as it is considered to be a cleaner energy source although it is not renewable. (Pg 43, 2025) **Solar Cookers implementation to address energy poverty in rural areas. Although the technology is proven to be reliable, its penetration level is very low in the country. One of the major factors contributing to this is the lack of information to the users and reliable supply of the technology. Scaling up access and adoption of solar cooking technology will reduce quantities of biomass and kerosene used for cooking (Pg 43, 2025)** **SOLAR COOKING TARGET- Unconditional: 8,400 solar cookers by 2030 - GHG reduction 12 kt CO2eq/year in 2030. Conditional: 9,450 stoves by 2030 GHG reduction 13 ktCO2eq/year in 2030. Responsible Parties: Department of Energy, Ministry of Local Government, Chieftainship, Home-Affairs & Police**
Liberia	2025 99.2% C CC	The National Energy Compact for Liberia aims to accelerate the pace of electricity to 100,000 households per year through grid and off-grid options to achieve a national access rate of 75 percent by 2035 and to develop a national clean cooking strategy to identify the baseline and targets for increasing access to clean cooking solutions. (Pg 13, 2025)

		Mitigation Target: Providing clean cooking solutions to 200,000 households to reduce emissions from traditional biomass use. (Pg 27, 2025) Mitigation Actions and Policy Measures: mobilize by 2035, US$70 million of private capital for utility-scale solar and another US$80–100 million for distributed renewable energy (DRE) and clean cooking; By 2035, ensure 5% transition from traditional biomass stoves to cleaner cooking solutions, such as LPG, electric, biogas, or advanced biomass stoves by implementing programs to disseminate and finance clean cooking technologies to replace wood stove and burners to reduce emissions from biomass burning in households.; Develop a national clean cooking strategy, in line with the Energy Compact, with 2035 and 2035 targets for (i) increasing access to clean cooking solutions and (ii) for reduced levels of indoor air pollution including black carbon (Pg 27, 2025) [Gender] Actions and Policy Measures: Conduct at least 10 training and capacity building initiatives per year, beginning 2026, to strengthen the technical skills, leadership abilities, and climate knowledge of women ... in the area of...clean cooking technologies; Design and launch a multi-year "Women in Green Technology" training and mentorship program. This program will provide technical skills and business support to women...[in] renewable energy systems (e.g., solar for irrigation and household use), clean cooking technologies (Pg 39, 2025)
Liechtenstein	2025 0%	
Lithuania	2023 0%	
Luxembourg	2023 0%	
Madagascar	2024 98.4% C CC	biomass intended for cooking (wood energy) which constitutes nearly 92% of the energy balance is counted in the Energy sector (residential sub-sector). The reduction in wood energy consumption would lead to a reduction in emissions of around 1,000 Gg eq. (pg. 17, 2024) The roles of women and the poorest, as agents of change within households, must be strengthened in the choice and promotion of adaptation and mitigation measures and technologies (by promoting less emitting cooking and lighting energies, or in the adoption of short-cycle varieties, etc.). (Pg 32, 2024) In 2021, to replace the dependence on charcoal and firewood which constitute the cooking energy of 97% of households in 2020, the Government of Madagascar reduced value added taxes on butane gas to 5%. (Pg 50, 2024) [Mitigation Measure]: Scale up improved stove initiatives (Pg 17, 2024)

Malawi	2021	98.5%	C	CC		[NDC Measures] 1.) Improved charcoal cookstoves - rural households (a) Deployment of efficient charcoal cookstoves to urban households; increasing from 20% to 30% efficiency thereby reducing demand for charcoal and CH_4 and N_2O emissions. 2.) Improved firewood cookstoves - rural households (b) Introduction of 2 million improved high efficiency stoves, resulting in carbon sink preservation through reduction in use of unsustainable biomass fuel. (Pg 36. 2022) In relation to adaptation, specific capacity and national needs include: Up-scaled adoption of alternative energy to biomass for cooking and heating; (Pg 101, 2022) Promote use of bio-fuels for lighting and cooking replacing fossil based fuel
Malaysia	2021	16.2%				
Maldives	2025	0.2%				
Mali	2021	98.7%				
Malta	2023	0%				
Marshall Islands	2025	35.2%	C	CC	SC	Sectors, gases, categories and pools covered by the nationally determined contribution... Other (cooking and lighting) (Pg 25, 2025) Asian Development Bank, the World Bank and others to implement key measures such as...ensuring clean energy access for the outer atolls through individual solar homes and mini-grids (NAP, 2023). (pg 5, 2025) **Specific areas of action contemplated to make progress towards the INDC targets include: Transition to electric and solar cook stoves from LPG cook stoves**; (Pg 7, 2015)
Mauritania	2021	50.6%	C	CC		[Measures] 9.) Efficient charcoal stoves (improved stoves): Distribution of 150,000 improved stoves by 2030 10.) LPG replacing wood: Distribution of 170,000 LPG stoves by 2030 11.) Efficient electric stoves: Distribution of 10,000 efficient electric stoves by 2030 (Pg 50, 2021) Bio digester technology is already present in the sub-region. A diet of organic 2 m3 digester composed mainly of cattle dung and other organic waste will produce biogas usable for of cooking And of heating of hot water . (Pg 51, 2021)
Mauritius	2021	0.9%				
Mexico	2022	14.9%		CC		In the same way, rural communities are supported to reduce the use of firewood and to have more efficient combustion processes, and

		thereby protect the health of the population, mainly women and children in rural homes that currently have exposure. high to this pollutant. This measure is very relevant to achieving the black carbon goal. (Pg 15, 2022)
Micronesia	2025 86.7% C CC	FSM can bend this baseline trajectory, reducing emissions to 153 $ktCO_2e$ in 2030 and 150 $ktCO_2e$ in 2035, while avoiding ~69 $ktCO_2e$ in 2030 and ~82 $ktCO_2e$ in 2035 … measures include: Ensuring universal electricity access and clean cooking adoption by 2035; (Pg 10, 2025) National Energy Policy 2024-2050…emphasizes phasing out inefficient biomass-based cooking (Pg 22, 2025) Clean cooking access remains limited in FSM, especially in rural and outer island communities, where households rely on firewood and kerosene as cooking fuels. The 2016 Agriculture Census confirmed widespread use of biomass for household needs, often without efficient stoves. Although LPG/butane stoves are increasingly used in urban centers, their uptake in outer islands is hindered by affordability, supply chain constraints, and lack of awareness.(Pg 30, 2025) Measure: M9 Increase clean cooking adoption using biogas, electric stove, and other clean options to 70% by 2035 (Conditional) …there is no national program yet that ensures universal adoption and achieving 100% access to clean cooking by 2035 will require scaled-up investment, stronger supply chains, and targeted gender-sensitive programming. (Pg 31, 2025)
Monaco	2025 0%	the Prince's Government has committed to contributing more than 3 million euros [in international climate financing] over the period 2024-2027,(Pg 39, 2025) the Prince's Government is considering ways to increase its international financial contribution. (Pg 40, 2025)
Mongolia	2020 44.2% C CC	The total duration of sunshine during a year reaches to about 2,600-3,300 hours…Therefore, the possibility to use solar and wind as an energy resource is relatively high (Pg 4, 2025) [Mitigation Action] Reduce fuel use in individual households through improving stove efficiency (with co-benefit of air pollution reduction), (Pg 3, 2016)
Montenegro	2025 38.6%	
Morocco	2025 1.9% C CC	Green Hydrogen Roadmap [shall] Contribute to the decarbonization of industry, transport and residential (heavy mobility, freight, aviation, industrial heat, cooking. (Pg 46, 2025) Implementation of a program aimed at the adoption of high energy efficiency ovens (gas, wood, electricity) in the residential sector, in order to reduce energy consumption and associated emission (Pg 69, 2025)

		Reduction of wood energy consumption through the distribution of improved ovens: Reducing wood energy consumption through the distribution of improved, high energy efficiency stoves. (Pg 72, 2025) Distribution of improved ovens to reduce wood energy consumption: Distribution of improved stoves to households in rural areas heavily dependent on wood energy, with priority given to areas of high forest degradation (Hazard/risk targeted: fires, drought, erosion) (Pg 82, 2025)
Mozambique	2021 92.6% C	Promotion of low carbon urbanization [measure] Massification of LPG - Increasing the number of people with access to cooking gas to around 309.02% compared to today
Myanmar	2021 46.5% C CC	Through the distribution of 5.1 million fuel-efficient cookstoves Myanmar will achieve a cumulative emissions reduction of approximately 12.99 million tCO2e during 2021-2030 ... Traditional cookstoves are also replaced by LPG based technology substitutions to further reduce the emissions from the use of fuelwood and charcoal. The government has set an unconditional target to support the distribution of one million LPG stoves by the private sector resulting in an emission reduction of 14.94 million tCO2e by 2030(Pg 2, 2021) Data Collection for improved cookstove initiative includes: number of stoves distributed, percentage of continued use, lifetime of stoves, modifications, performance (Pg24,25, 2021) According to the national census data, upwards of 80% of the national population uses fuelwood and charcoal as a primary means of cooking food. Myanmar has promoted the use of improved fuelwood cook-stoves to reduce forest degradation and GHG emissions from unsustainable fuelwood use. (Pg 24, 2021) [mitigation project] electrical cooking (pg. 49, 2021) Key mitigation technologies will be required in...clean cooking (Pg 57, 2021) [Residential Sector Potential Measure] Implementation of prepaid energy meter for gas based cookstoves
Namibia	2024 52% CC	[Measure] Residential - Reduce fuelwood and fossil products with electricity generated from renewable sources and replace water electric heaters with solar energy ones; Promote substitution of fuel wood with electricity from renewable sources (Year: 2030, Emissions Reduction: 0.046). BENEFITS: (1) Lower emissions; Better air quality; Improved health; (2) FOREX savings, (3) Energy security (pg 27, 2024)
Nauru	2021 0%	

Nepal	2025 57.3% C CC	[Cooking Targets:] Expand the use of electric cookstoves to 2.1 million households and an additional 15,000 institutions and firms by 2035 (2024 = 400,000 households); Expand the use of improved cookstoves (ICS) to 750,000 households by 2030 and 1 million by 2035 for cooking (2024 = 127,703 households); Expand the use of household-level biogas for cooking to 500,000 households by 2030 and 652,770 households by 2035 (2024 = 450,770 households) (Pg 4, 2025) Distributed Renewable Energy (DRE) technologies, and clean cooking and heating will be promoted, including through carbon financing, and testing facilities will be strengthened. (Pg 8. 2025) If the quantified targets are implemented, the total GHG emissions reduction from the Energy sector will be 4,714.26 GgCO2eq by 2030 and 8,546.41 GgCO2eq by 2035, with reduction in cooking and heating sub-sector of 2,022.17 GgCO2eq by 2030 (Pg 14, 2025) The disease burden attributed to ambient and household air pollution will be reduced to 77/100,000 by 2030 and 60/100,000 by 2035. (Pg 29, 2025)
Netherlands	2023 0%	
New Zealand	2025 0%	
Nicaragua	2025 40.4%	
Niger	2021 94.9% C CC	The mitigation options concern the management of sub-'Residential' sector (households), by rural electrification, the wood energy economy and its replacement by other more modern fuels (butane gas, biofuels, solar); (Pg 17, 2021) Cooking energy: reduction in the demand for wood energy per inhabitant by the mass spread of improved cook stoves, with a rate of penetration of 100% in urban areas and 30% in rural areas; promotion as domestic gas of biogas and biofuels at both the industrial and family level. (Pg 2, 2016)
Nigeria	2025 73.8% C CC	key policies informing the preparation of the NDC 3.0 [include] National Clean Cooking Policy (2024) (Pg 10, 2025) In 2030, the LULUCF sector (73.7%) will contribute the most in terms of absolute emissions reduction… as a result of reducing deforestation and cutting down wood removal for use as fuelwood, which are directly linked with the provision of alternate clean fuels coupled with the adoption of improved stoves for cooking in the residential, commercial and manufacturing industries categories (Pg 15, 2025) Measure 10: 3.) Boost adoption of efficient cookstoves 4.) Enhance adoption of clean fuel technologies for cooking to displace fuelwood in Urban and Rural households as well as Commercial cooking with the following targets: 5.) Commercial cooking: 37%

				Electricity, 35% LPG, 13% efficient wood cookstoves, 10% wood, 3% kerosene, and 2% charcoal 6.) Rural households: 27% Electricity, 31% LPG, 22% efficient wood stove, 18% wood, and 2% charcoal 7.) Urban households: 55% Electricity, 35% LPG, 6% efficient wood cookstoves, 2% wood, 1% kerosene, and 1% charcoal (Pg 17, 2025) Net job creation is further supported by projections of up to 170,000 jobs in off-grid solar and 200,000 jobs across clean cooking supply chains. (Pg 47, 2025) Partnership with banking/financing institutions to offer affordable financing options for clean cooking technology to women and low-income households. (Pg 53, 2025)
Niue	2025	1.5%	C CC	Specific areas of action contemplated to make progress towards the INDC targets include: Transition to electric and solar cook stoves from LPG cook stoves; (Pg 7, 2015)
North Macedonia	2021	18.7%		
Norway	2025	0%		Norway also provides significant support that contributes to emission reductions in developing countries. (Pg 15, 2025)
Oman	2023	0%	C	In alignment with the Oman s Carbon Management Lab, it is assumed that 95 % of current buildings have a low insulation level, all energy consumption is electrified (e.g., cooking) and that there is negligible district cooling (pg. 39, 2023)
Pakistan	2025	45.1%	C CC	The costing framework of Pakistan's NDC 3.0 estimates a total investment need of US$ 565.7 billion to advance adaptation, resilience, low carbon transition, and cross-cutting priorities…Additional investments target …clean cooking (Pg 17, 2025) Cooking & Heating: Reduce reliance on fuelwood by scaling up clean cooking solutions, including electric stoves, improved cook-stoves, biogas systems, and sustainable options such as briquetting and agricultural residue utilization to protect forests, safeguard public health, and accelerate the transition to sustainable energy. Buildings (Residential & Commercial): Efforts will focus on expanding access to clean cooking fuels and technologies with the aim of phasing out traditional biomass use. (Pg 21, 2025) Estimated investment requirement for clean cooking 1.3 billion (US$) for 2030, 2.1 billion (US$) for 2035
Palau	2016	0%		
Panama	2025	0%	C CC	By 2027, 60% of households that do not have these services will have been provided with electricity from renewable energy and clean energy for cooking, compared to 2023. (Pg 55, 2024)
Papua New Guinea	2020	89.5%		
Paraguay	2021	28.7%		

Peru	2020	8.2%		
Philippines	2021	40.5%		
Poland	2023	0%		
Portugal	2023	0%		
Qatar	2021	0%		
Republic of Korea (South)	2021	0%		
Republic of Moldova	2025	1.7%	C	In Moldova, rural households, many of which are led by women, disproportionately rely on biomass for heating and cooking. With over 80% of rural households dependent on wood fuel, increasing deforestation and climate-induced resource scarcity pose significant energy security challenges. (Pg 61, 2025) forest dependency remains high (as it is a significant source of firewood), which contributes to deforestation and indoor air pollution) (Pg 22, 2025)
Romania	2023	0%		
Russian Federation	2025	0%		
Rwanda	2020	90.7%	C CC	Rwanda energy primary use is dominated by biomass, which accounts for around 86% of the total. Over 80% of Rwandan households use wood for their cooking fuel, followed by charcoal, crop waste, gas or biogas…The average household uses around 1.8 tons of firewood each year to meet its cooking needs with a traditional stove (Pg 15, 2020) [Mitigation] Dissemination of modern efficient cook stoves to 80% of the rural population and 50% of the urban population by 2030, achieving a more sustainable balance between supply and demand of biomass, and reducing firewood and fossil energy consumption for cooking. (Pg 37, 2020)
Saint Kitts and Nevis	2021	0%		
Saint Lucia	2025	7.9%		
Saint Vincent and the Grenadines	2025			
Samoa	2021	60.3%		

San Marino	**2018**	**0%**				
Sao Tome and Principe	**2025**	**95.4%**	C	CC	SC	National Action Plan and Strategy for Clean and Modern Cooking (PNAECLM) Published 2024.03 (Pg 78, 2025) Firewood is the main source of energy for domestic, commercial and small industrial use, while locally produced charcoal is widely used for cooking. According to UNDP data (2021), around 72% of the population depends on solid fuels for cooking, with 45.6% of households using firewood, 26.5% charcoal, 25.5% petroleum and only 1.5% liquefied petroleum gas (LPG). However, a significant portion of the wood consumed is harvested illegally and without adequate oversight ...The strategic alignment between the National Action Plan for Renewable Energy (PANER), the National Action Plan for Energy Efficiency (PANEE) and the National Action Plan and Strategy for Clean and Modern Cooking11 (PANECLM) represents a decisive opportunity to accelerate the energy transition in São Tomé and Príncipe. (Pg 23, 2025) **COMPLEMENTARY MEASURES OF NDC 3.0** **Sector: Energy; Sub-sector: Residential; Technology or name of measure: Gas, electric and solar cookers; Measure: Increase in gas, electric and solar cookers for cooking (Pg 65, 2025)** Climate change affects women and girls differently. Their greater dependence on natural resources and informal work (subsistence agriculture, artisanal fishing, water/firewood collection) exposes them to climate shocks (Pg 45)
Saudi Arabia	**2021**	**0%**				
Senegal	**2020**	**65.2%**	C	CC		Domestic fuels (mainly charcoal and firewood) represent nearly 35% of final household energy consumption in 2016. Firewood and charcoal constitute more than 75% of energy sources household cooking...Measures for domestic fuels contribute to the preservation of forest resources, with the substitution of firewood and charcoal with sustainable sources and efficient cooking equipment.(Pg 25, 26, 2020)
Serbia	**2025**	**16.9%**				
Seychelles	**2025**	**0%**				
Sierra Leone	**2021**	**99.1%**	C	CC		Major water uses include domestic (drinking, cooking, hygiene) (Pg 7, 2021) Sierra Leone proposes to implement the revised National Energy Policy and Strategic Plan (2020), the Integrated Resource Plan (2019), and National Electrification Roadmap (2020), focusing on the role off grid energy sources could play in achieving universal access and energy efficiency. Focused plans such as policies for clean cooking and the off grid solar energy strategy (2020) will be

		useful in improving quality control measures, creating opportunities for private investment, addressing ambiguities around ownership of environmental attributes for solar investments, and fostering citizen buy-in. [Proposed Action] Developing technical capacity to manufacture energy-efficient cook stoves (Pg 46, 2023)
Singapore	2025 0%	
Slovakia	2023 0%	
Slovenia	2023 0%	
Solomon Islands	2025 91.3%	Major water uses include domestic (drinking, cooking, hygiene) (Pg 7, 2021) Sierra Leone proposes to implement the revised National Energy Policy and Strategic Plan (2020), the Integrated Resource Plan (2019), and National Electrification Roadmap (2020), focusing on the role off grid energy sources could play in achieving universal access and energy efficiency. Focused plans such as policies for clean cooking and the off grid solar energy strategy (2020) will be useful in improving quality control measures, creating opportunities for private investment, addressing ambiguities around ownership of environmental attributes for solar investments, and fostering citizen buy-in. [Proposed Action] Developing technical capacity to manufacture energy-efficient cook stoves (Pg 46, 2023)
Somalia	2025 94.6% C CC SC	the NDC commits to strengthening gender-responsive adaptation planning…that safeguard livelihoods and well-being in the face of climate shocks. By enhancing access to low-carbon and affordable technologies such as solar-powered irrigation, clean cooking solutions (Pg 16, 2025) "Mission 300" which aims to ensure that 300 million people in Africa gain access to clean cooking solutions by 2035 (Pg 10, 2025) Energy Initiatives include: Promotion of improved cookstoves and energy-efficient appliances; Promoting clean cooking including use of LPG to replace biomass in domestic energy; Small scale solar lighting solutions (Pg 20, 20205) Early wins will focus on actions with co-benefits such as jobs, food security, an ecosystem services e.g. clean cooking (Pg 26, 20225) mitigation efforts require both technological and behavioral interventions: clean cookstove value chain, establishing local manufacturing of efficient stoves (Pg 27, 2025)

		Co-benefits include: Transition to alternative cooking systems to charcoal reduces emissions; Efficient cookstoves reduces emissions and improves household health from particulates; Gender and youth inclusion in clean cookstoves programmes (Pg 41, 2025) **Solar cooking has also seen some uptake in the country, and solar power is seen as the energy source of choice** (Pg 9, 2015)
South Africa	2021 10.2%	
South Sudan	2021 100%	
Spain	2023 0%	
Sri Lanka	2021 64.6% C	The energy sector remains the predominant source of national net GHG emissions, contributing 21,696,900 MT of CO_2e in 2021…Rural areas mainly use fuelwood for cooking, though bottled LP gas use is rising (Pg 11, 2025) The overall participation rate for unpaid domestic services related activities for men and women are 54% and 86.4% respectively (Pg 82)
State of Palestine	2021	
Sudan	2022 29.5% C CC	[Energy Sector Measure] Biomass savings through improved cookstoves for over 300,000 rural households; Improved cookstoves as replacement for traditional inefficient wood stoves for 20% of rural population (Pg 6, 2021) [Results have been achieved across states in which there was a] Reduction in unsustainable biomass harvesting through shifting from a total dependence on firewood to butane gas units for cooking. (Pg 22, 2021)
Suriname	2019 4.3%	
Sweden	2023 0%	
Switzerland	2025 0%	
Syrian Arab Republic	2018 11.2%	
Tajikistan	2021 12.1%	
Thailand	2022 13.2%	
Timor-Leste	2022 80.9% C CC	Solar energy, biogas, hydropower, and efficient cook stoves have been increasingly piloted and utilized as an alternative to fossil fuels

		however, further progress is conditional on access to increased resources, finance, and technology transfer. (pg14, 2022)
Togo	2021 86.8% C CC	[Action] increase the number of households cooking using improved efficiency biomass stoves and cleaner fuels such as LPG or electricity (Pg 17, 2021) [Activity] Increase the share of the population using biogas for cooking has 4% in 2025 And has 12% in 2030 (Pg 26, 2021) In the field of energy, all populations in rural areas resort to the use of cakes, sawdust, palm nut shells and corn straw, sorghum to cook food. (Pg 54, 2021)
Tonga	2020 9.9%	
Trinidad and Tobago	2018 0%	
Tunisia	2025 0.1% C	[Priority] : Consolidate the capacity of youth and women's associations to create territorial synergies for an alternative tourism offer (rural tourism, agri-tourism, valorization of local know-how such as cooking and local products. (Pg 68, 2021)
Türkiye	2023 4.7%	
Turkmenistan	2023 0.2%	
Tuvalu	2025 23% C	Tuvalu has early experience in biogas projects which not only produces energy for cooking but also reduces methane emissions from livestock (Pg 7, 2025)
Uganda	2022 98.2% C CC	[Action] Increase access to clean energy cooking technologies [Indicators] Increased share of clean energy for cooking; Share of biomass energy used for cooking; proportion of households and institutions using efficient cooking technologies The [Energy Efficient Stove] measure aims to promote clean cooking solutions and biomass energy use efficiency technologies for fuel wood and charcoal stoves among households and institutions (education, hospitals, prisons, and industries, among others). The measure will reduce emissions by approximately 6.89 MtCO2e by 2030. [Pg 32, 2022] [Cooking mitigation measures, incl. energy efficiency and fuel switch] measure aims to improve energy efficiency during cooking by adoption of efficient charcoal and fuelwood stoves and to change from using biomass as main source energy for cooking to the use of cleaner energy resources. This can lead emission reductions of approximately 1.09 MtCO2e by 2030. (Pg 35, 2022)
Ukraine	2021 5.1%	

United Arab Emirates	**2024**	**0%**	C CC	[Climate Aid] The UAE has provided over USD 2 billion in grants and concessional loans for renewable energy projects in developing countries in addition to providing the means and access to clean cooking. (Pg 13, 2024)
United Kingdom	**2025**	**0%**		
United Republic of Tanzania	**2021**	**90.2%**		
United States of America	**2024**	**0%**	C	Building sector emissions come from electricity use, as well as fossil fuels burned on site for heating air and water and for cooking… The emissions reduction pathways for buildings consider ongoing government support for energy efficiency and efficient electric heating and cooking in buildings via funding for retrofit programs, wider use of heat pumps and induction stoves, and adoption of modern energy codes for new buildings(Pg 4, 2021)
Uruguay	**2024**	**0%**	C CC	Decarbonization in the residential, commercial and services sectors:…some fuel uses have been identified that will require complex transformation processes, and work needs to begin on them. An example is cooking with LPG, which has general and targeted subsidies and is used in more than 90% of households. (Pg 49, 2025) There is the drive for intramodality in…the electrification of cooking at the residential level (Pg 52, 2025) Decarbonization of the industrial sector [including food production]: …Regarding the fuels used, biomass consumption (firewood and others) accounts for the majority: 62%.(Pg 51, 2025)
Uzbekistan	**2021**	**21.9%**		
Vanuatu	**2025**	**79.4%**	C CC	Under the BAU pathway, Vanuatu's forests absorb a declining amount of forest carbon in the years 2030 to 2050. The decline in forest carbon removals is due to increased demand for fuel wood, principally for cooking. The volume of fuel wood consumption increases to almost 270,000 m3 of wood per year in 2050. Net carbon removals are anticipated to decrease from approximately 6,340,000 tonnes in 2020 to 5,880,000 tonnes in 2050. (Pg 26, 2025) Vanuatu commits to …(d) 14% improvement in cooking and drying efficiency through expansion of biomass-fuel devices [by 2035]…thereby reducing emissions by 78 kt CO_2 eq overall. Policy: Updated Vanuatu National Energy Road Map. (Pg 36, 2025) Smaller, distributed actions (e.g., appliance efficiency, building retrofits, clean cooking devices, livestock productivity measures) will utilize results-based grants, pay-as-you-save credit lines, and micro-loans from the local financial intermediaries. (Pg 128, 2025)

			The majority of households in Vanuatu are located in remote locations with no on-grid electricity access, in fact, most households already rely on renewable energy to meet their basic lighting and cooking needs… rather, the actions "in-jurisdiction" are widely expected to bring adaptation and resilience cobenefits. (Pg 142, 2025)
Venezuela	2021 6.5%		
Viet Nam	2022 1.3%	CC	[Criteria] (i) cost/benefit efficiency; (ii) feasibility in implementation; (iii) harmonization and co-benefits with climate change adaptation, socio-economic development; and (iv) consistency with national and sectoral development plans[Measure] use of biogas and cleaner fuel instead of coal for household cooking in rural areas (Pg 6,7, 2022)
Zambia	2025 90.8%	C CC	[Goals include] - Improved cooking devices to include improved biomass stoves, use of ethanol and LPG stoves, and switch to electric stoves (Pg 3, 2016)
Zimbabwe	2025 69.3%	C	Several mitigation projects have been excluded from this analysis for … lack of a clear local implementing agency to advance that particular project (efficient cook-stoves). (Pg24, 2021)