

CLEAN COOKING

WHAT IS CLEAN COOKING?

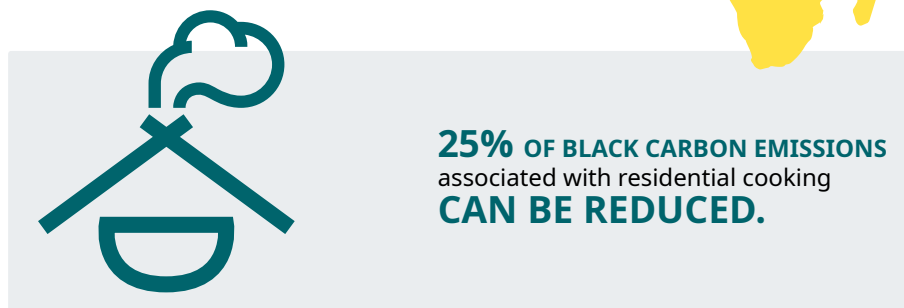
Clean cooking refers to all the methods (low-to-zero emissions) by which people cook their food. Any cookstove (hot plate) can be referred to as “clean” if they run on electricity, solar, liquid petroleum gas (LPG), natural gas, ethanol, and advanced biomass cookstoves [2]. They are dependent on solid fuels, including biomass, wood stock, kerosene and charcoal to prepare their meals. Sustainable clean cooking means transitioning to a future where cooking needs are met in a way that is economically, socially and environmentally sustainable. Furthermore, switching to clean cooking from traditional biomass-based cooking would improve public health and reduce air pollution.

A CLOSER LOOK AT CLEAN COOKING

Cooking with inefficient fuels releases emissions like carbon monoxide, black carbon, methane, and particulate matter [3]. Here is how inefficient cooking affects our world:



93% OF HOUSEHOLDS in Sub-Saharan Africa **RELY ON WOOD ENERGY** for their daily cooking needs. 83% of households in Sub-Saharan Africa still do not have access to clean cooking.



HOUSEHOLD AIR POLLUTION (HAP) is the **4th BIGGEST HEALTH RISK IN THE WORLD.**

2.5 MILLION DEATHS

Every year HAP leads to more deaths than HIV, Malaria, and TB combined.



Stroke



Pneumonia
Lung cancer
COPD



Heart disease



Cataracts

[Source](#)

KEY FACTS



Access to clean cooking not only improves the standard of living by reducing household air pollution, but also **enables women** (mostly from developing countries) **to pursue economic opportunities** instead of spending hours in the kitchen.

According to Global Alliance for Clean Cookstoves (GACC), **clean cooking can SAVE 61% OF FUEL COSTS** for families and significantly reduces emissions.



Traditional cooking methods are deeply embedded in people's way of life, which is the reason why communities are more resistant to change to innovative clean cooking technologies and respective methods.

1.7 MILLION CLEAN COOKSTOVES were distributed in 2019 in Bangladesh, that have **reduced carbon emissions by 3 metric tons of CO₂eq** [4].

An Ashram in India **uses solar thermal for community cooking**. It has 73 parabolic concentrated solar reflectors that **CAN COOK 50,000 MEALS A DAY** and saves nearly 100,000 kg of LPG annually.



In 2018, 53% of households in developing countries were using clean cooking, whereas the rest of them used charcoal fires or wood. If the clean cooking policies are implemented aggressively with SDG7 of universal access to clean energy, 31–73 gigatons of carbon emissions can be reduced with a net cost of \$128-\$264 billion. The clean cooking stoves cost about \$15-25. If clean cooking is adopted worldwide, then there will be reduction of black carbon, a harmful climate pollutant, by 8-20 gigatons of carbon dioxide equivalent.

Annual Primary Energy Demand Per Household by Fuel and Technology (GJ)

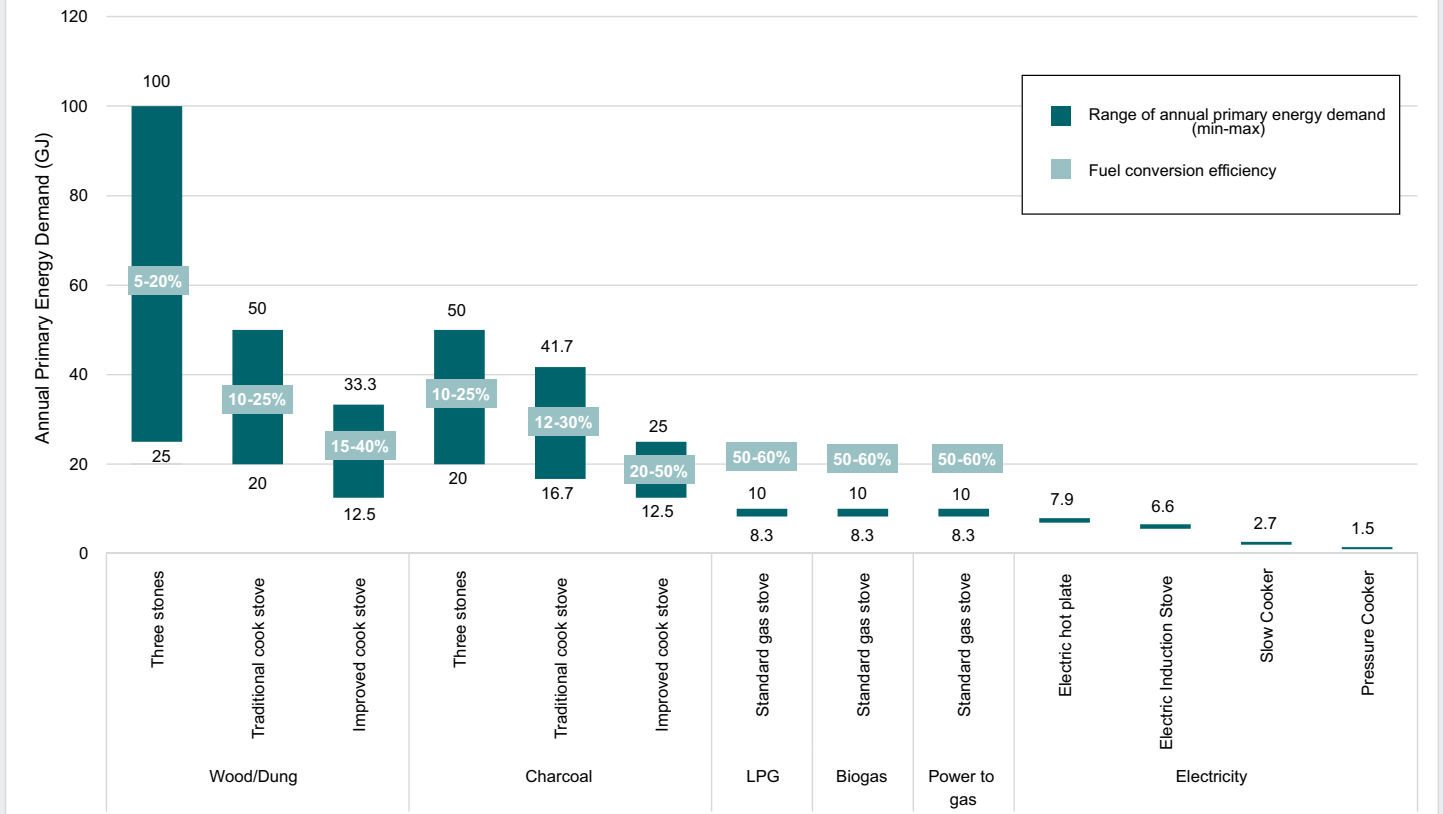


Figure 1: Annual Primary Energy Demand Per Household by Fuel and Technology (GJ) [1]

FINANCIAL FACTS

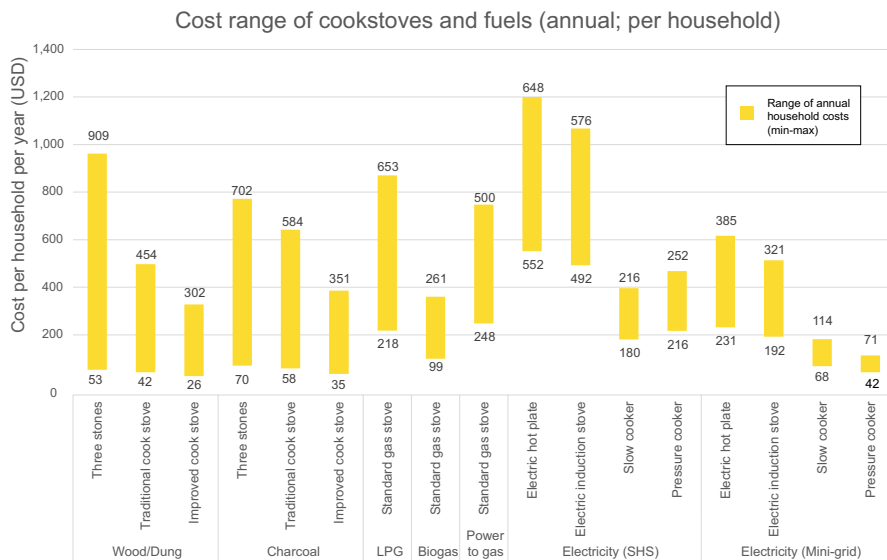


Figure 2: Estimated Cost Ranges of Different Types of Cooking Technologies (2019)



\$13 BILLION

are spent annually in costs to health, environment and economies in the developing world due to the use of solid fuels for cooking.

[Source](#)

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