

Buildings: Cooking

This lever controls the sub-levers listed in the table, and ambition levels are for the end year shown on the right-hand side.

In 2018, 63% of households in Kenya still use biomass as their primary fuel for cooking, with firewood at 50% and charcoal at 13%. Kerosene use was at 10% that is gradually being replaced by LPG at 23.9%. Electricity use is still low at 0.1%. Biogas use is still developing still at 0.5% and bioethanol at 2%. According to MOE, cooking report (2019), domestic cooking energy use is 1386.82kWh/person per year. For the non-domestic cooking, average cooking demand was 34% of the total energy use of 184kWh/m2/year, which is 62.56kWh/m2/year driven mostly by the hospitality sector (non-office). 22% of this was used in LPG while 78% was used in electricity.

Key Interaction:

The Kenyan National Efficiency and Conservation Strategy, 2020, has targeted 50% of households to have access to clean fuels by 2025. Development of MEP standards to cover efficient cook stoves and awareness campaigns increases cook stove efficiency from 25% to 45%. An uptake of improved cook stoves will reduce biomass consumption. The Kenya SE4ALL overall strategy targets access to clean cooking fuels for all at 100% and 100% access to electricity by 2030. Electrification rate stands at 6% per year. 4.3% urbanization rate also increases access to cleaner fuels. This leads to decline of usage of wood and charcoal and transition to cleaner fuels.

Level 1

There is no ambition to control harvesting of natural

forests. There is no major ambitions to improve alternative fuels consumption and no ambitions to develop and promote efficient cook stoves. Demand for wood and charcoal increases as population increases. Firewood, charcoal & Kerosene supply remains at 65% of the households that use a single fuel source that is largely held due to supply constraints.

Level 2

There is some actions on access for cleaner fuels such as electricity, LPG, biogas and bioethanol due to improved road infrastructure and access to electricity. Promotion of alternative fuels such as briquettes and expanded MEP standards have enabled the promotion of efficient cook stoves. Firewood, charcoal & Kerosene supply 40% of the households that use a single fuel source.

Level 3

Supply for wood and charcoal is falls further below demand and prices increase. There are substantial actions on access for cleaner fuels such as electricity and bioethanol. Biogas is purified to bio-methane, due to improved infrastructure and access to electricity. Promotion of alternative fuels such as briquettes and expanded MEP standards have enabled the promotion of efficient cook stoves that has caused substantial reduction in wood use. Firewood, charcoal, and kerosene supply 13% of the households that use a single fuel source.

Level 4

Legislation is in place to control harvesting of natural forest. Supply for wood is highly constrained driving prices high. Better infrastructure development enables 100% access to electricity. This aides

100% access for cleaner fuels such as electricity.

Firewood, charcoal, kerosene, gasses are not substantially used in the households that use a single fuel source resulting to insignificant carbon emissions from fuel.

Default Timing

Start year: 2019, End year: 2050

	Baseline	Level 1	Level 2	Level 3	Level 4
Share of Electricity	0%	1%	30%	70%	100%
Share of wood	50%	45%	25%	5%	0%
Share of charcoal	13%	12%	9%	4%	0%
Share of kerosene	10%	8%	6%	4%	0%
Share of bio ethanol	2%	3%	5%	5%	0%
Share of H2	0%	0%	0%	0%	0%
Share of LPG	24%	30%	20%	10%	0%
Share of biogas	1%	1%	3%	0%	0%
Share of Bio methane	0%	0%	2%	2%	0%
MEP Biomass Cook Stove	1	0.95	0.9	0.85	0.8

