Biomass Residue end-use

Around 50% of agricultural residue is used as fodder. Of the remaining, 70% is used for cooking, 5% is used for electricity and remaining is used for other applications. This lever makes the shift from end use of biomass in low-value applications to high-value biofuels and more use in electricity from level 1 to 4.

Level 1

Level 1 assumes that the share of non-fodder agricultural residue for household cooking decreases from 62% in 2015 to 44% by 2050. Further biomass based power generation capacity increases from 10 MW in 2015 to 220 MW in 2050, resulting in increase in biomass consumption 1.6 million tons by 2050. Liquid transportation fuel from agricultural residue is produced from 2020 onwards reaching up to 6.4% by 2050.

Level 2

Level 2 assumes that share of non-fodder agricultural residue for household cooking decreases from 62% in 2015 to 25% by 2050. Further biomass based power generation capacity increases from 10 MW in 2015 to 400 MW in 2050, resulting in increase in biomass consumption 2.9 million tons by 2050. Liquid transportation fuel from agricultural residue is produced from 2020 onwards reaching to 13% by 2050.

Level 3

Level 3 assumes that the share of non-fodder agricultural residue for household cooking decreases from 62% in 2015 to 1% by 2050. Further biomass based power generation capacity increases from 10 MW in 2015 to 675 MW in 2050, resulting in increase in biomass consumption to 4.85 million tons. Liquid transportation fuel from agricultural residue is produced from 2020 onwards reaching to 19.3% by 2050.

Level 4

Level 4 assumes that non-fodder agricultural residue would not be used for cooking purposes. Biomass based electricity generation capacity increases to 460 MW by 2050, as higher share (33%) of agricultural residue is used for liquid fuel generation.