Transport: Heavy Vehicles - Biofuel

This lever controls the sub-levers listed in the table, and ambition levels are for the end year shown on the right-hand side. Units of 'Index' are relative to 2015.

This lever controls the sub-levers listed in the table, and ambition levels are for the end year shown on the right-hand side.
Kenya aims to reduce its greenhouse gas (GHG) emissions by 30% by the year 2030 compared to the business as usual (BAU) scenario.
Biofuels have the potential to reduce greenhouse gas (GHG) emissions as the CO2 produced at the tail pipe has been absorbed during the growth of the biomass used.
The net GHG emissions impact of biofuel is therefore generally low being just those incurred in the supply chain, although for some crops (such as oil seeds) the impact can be much higher, hence the interest in biofuel production from wastes such as used cooking oil.
At low levels, they can simply be mixed with fossil fuels and used in existing engine technologies. However, shares of the fuel mix beyond 10% for bioethanol and 7% for biodiesel require modifications to the engine or the development of advanced biofuels.

Key interactions
Increasing the use of biofuels in transport has implications for how that increased demand for biofuels will be satisfied. Biofuels can be created from waste and biomass grown in Kenya.requirements in industry. Combustion and process emissions can be captured by carbon capture technologies. This is controlled by the Industry CCS lever.

Level 1
Efforts to increase the amount of biofuel blended with fossil fuels are abandoned and the blend remains close to current levels.

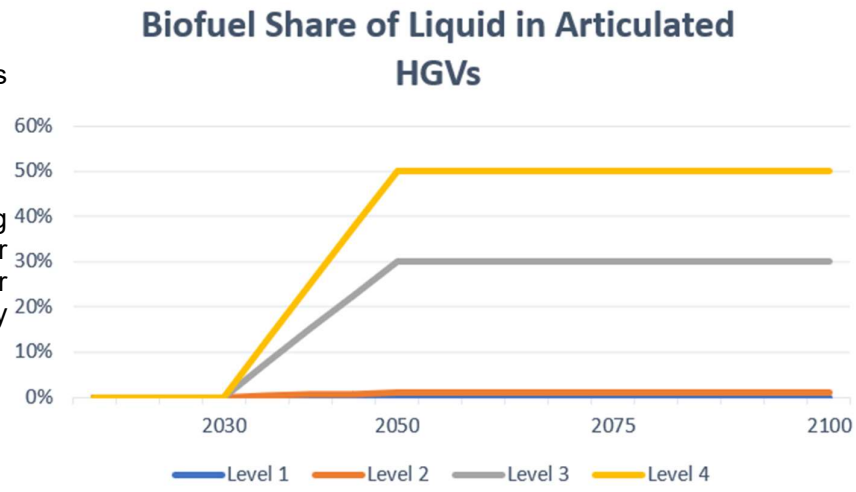
Level 2
Biofuel blend increases to match the current levels seen in more 'biofuel progressive' countries such as Brazil where the ethanol use mandate for gasoline was raised to 27% in 2015 (though many buses would require biodiesel).
This might require engine modifications depending on the type of biofuel.

Level 3
Technological advances in biofuels improve their compatibility with current vehicles allowing 30% of fossil fuel to be substituted for articulated lorries and buses, 1% of passenger rail transport and 50% of non-road machinery usage.

Level 4
Big advances in biofuels with strong public engagement and policy leading to 50% substitution of fossil fuel usage with biofuels for articulated lorries and buses and 100% substitution of fossil fuel usage in non-road machinery to biofuels.

Default Timing: Start 2021; End 2050.

Sub-Lever	Units	2015	Level 1	Level 2	Level 3	Level 4
HGV Articulated	share	0.0	0	0.01	0.3	0.5
Bus	share	0.0	0	0.2	0.3	0.5
Rail Passenger	share	0.0	0	0	0.01	0.0
Rail Freight	share	0.0	0	0	0	0.0
Non-Road Mobile Machinery	share	0.0	0.022	0.25	0.5	1.0
Shipping Domestic	share	0.0	0	0	0.1	0.2
Shipping International	share	0.0	0	0	0.1	0.2



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