Transport: Kenya Transport Demand

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

The Kenyan transport sector accounts for about 20% of Kenya's total GHG emissions, which amounts to 11.25 MtCO2e as of 2015 according to the National Inventory Report 2015. The emissions are increasing at a faster rate than in other sectors.

The main modes of transport used in Kenya are road, rail and air. Maritime travel accounts for a small percentage of travelers. The main factors that affect the amount of carbon emissions contributed by the transport sector are the number of passengers traveling and the fuel type that is used to power the mode of transport used.

In Kenya on average each Kenyan travel about 22,121 km per year (excluding trips abroad). The base year selected is 2015.

This lever therefore changes both the total demand for travel in km per person and the proportion of this distance travelled by each mode to explore how such 'modal shifts can contribute to the Kenya`s overall emissions.

Other factors affecting emissions from this sector is the occupancy (number of people sharing the same vehicle on a journey) and range (how much distance can be covered by one vehicle) of each mode.

Key Interaction

Transport emissions depend not only on demand but also on the carbon intensity of the technology used to drive them. For example, vehicles are powered sing fossil fuels, biofuels, electricity and hydrogen and various combinations of these.

Level 1

People increase the total distance they travel each year but have no ambition to change the way in which they move around the country.

Level 2

Travel demand remains the same as the base year. Incentives such as the Cycle to Work Scheme encourage people to shift from car travel to cycling and rail.

Level 3

There is a substantial shift to public transport, and rates of cycling becomes comparable with The Netherlands. There is a small increase in sharing of car journey.

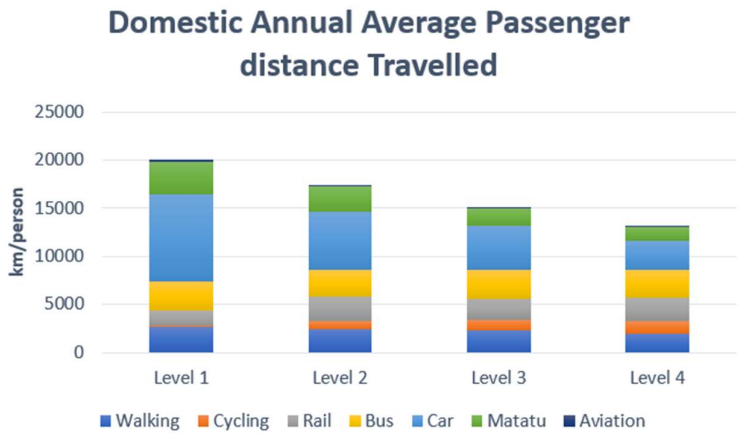
Level 4

There is an increase in the uptake of public transportation methods such bus, rail and matatu. The usage of cars in travelling has significantly reduced and for the cars still being used, there is an increase in car sharing. The use of bicycles has also increased given the creation of cycling paths.

Default Timing

Start year: 2020, End year: 2050

Sub-Lever	Units	2015	Level 1	Level 2	Level 3	Level 4
Domestic passenger travel	Psg km. / person	22220.6	20000.0	17400.0	15138.0	13170.1
Share of passenger travel						
Walking	share	0.1	0.1	0.1	0.2	0.2
Cycling	share	0.1	0.0	0.1	0.1	0.1
Car	share	0.5	0.5	0.4	0.3	0.2
Matatu	share	0.1	0.2	0.2	0.1	0.1
Bus	share	0.2	0.2	0.2	0.2	0.2
Rail	share	0.0	0.1	0.1	0.2	0.2
Aviation	share	0.001	0.01	0.01	0.01	0.01
Car Occupancy/sharing	Psg / Vehicle	1.5	1.5	1.6	1.7	1.9
Car average annual mileage	km. / Vehicle	324,124	350,000	400,000	420,000	450,000



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