

# Industry: Industry Shift to Biomass

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

Nigeria depends on biomass for fueling mining, manufacturing, construction and other industries as the industrial sector, the use of biomass in industry has the potential to reduce carbon dioxide emissions because most of the CO<sub>2</sub> emitted from the combustion of biomass has been previously absorbed by the crop, since there is no carbon capture equipment in Nigeria the CO<sub>2</sub> is return back to the atmosphere. Industries that make use of solid fuel burners and boilers are more able to switch to solid biomass as a fuel source whereas natural gas fired processes are to be switched over to biomass, due to the disruption and cost to change in technology. There may be issues in some industries with biomass not reaching high temperatures for high temperature processes – this is most likely in the manufacturing industries. Ash collection is also a logistical issue with biomass.

## Key Interaction

Nigeria is blessed with trees, shrubs and grass for supporting the industry, not sufficient for the industry, and are from the forestry sector.

## Level 1

At this level biomass consumption remained the same as 2015 by 2050 and there is no work done by the government to use animal waste for industrial energy.

## Level 2

Government ambition continues to increase to 10% in mining, 30% construction, 20% manufacturing and 20% others by 2050, leading to increase in biomass production.

## Level 3

At this level, the usage almost doubles the ambition level in the use of biomass 30% in mining, 50% construction, 40% manufacturing and 45% others by 2050.

## Level 4

In this level, there will be complete elimination of other energy that will emit greenhouse gases about 50% increase in mining, 70% construction, 60% manufacturing and 70% others

**Default Timing** Start year: 2020, End year: 2050

## Shift to Biomass

Sub levers	Share	2015	level 1	level 2	level 3	level 4
Cement	%	15	15	30	55	79
Ferrous and nonferrous metal	%	10	10	21	42	66
Chemicals	%	5	5	20	40	60
Refineries	%	0	0	11	23	44
Other Industries	%	5	5	13	26	48
Total	%	40	40	95	186	297

