Reducing Environmental Impact

The target is to reduce 30% environmental footprint in our manufacturing plants by 2020 compared to 2015-16.

Water Consumption	Carbon Emissions	Waste Disposal	Wastewater Discharge
Target	Target	Target	Target
30% reduction in specific water consumption in our manufacturing plants by 2020.	30% reduction in specific CO2 emissions in our manufacturing plants by 2020.	30% reduction in specific waste disposal in our manufacturing plants by 2020.	30% reduction in specific wastewater discharge in our manufacturing plants by 2020.
Performance	**Performance**	**Performance**	**Performance**
In 2017-18, water consumption per tonne of production in the Company's manufacturing plants reduced by 20% compared to 2015-16.	In 2017-18, CO2 emissions per tonne of production in the Company's manufacturing plants reduced by 30% compared to 2015-16.	In 2017-18, waste disposal per tonne of production in the Company's manufacturing plants reduced by 25% compared to 2015-16.	In 2017-18, wastewater discharge per tonne of production in the Company's manufacturing plants reduced by 38% compared to 2015-16.

The Company has taken following initiatives this year to make our operating plant sustainable:

Specific Water Reduction Initiatives

Sustainable industrial water management plays a vital role in achieving future water security in a world where water stress will increase. The optimum utilization of all natural resources is an integral part of the Company's commitment to sustainable development. Aiming to decrease abstracted water demand in our operating plants, following initiatives has been taken this year:

- Reduced the water consumption in ALP Red Phosphorus production in Vapi Unit 0.
- Reduced the water consumption in Clomazone, Devrinol production in Ankleshwar Unit 2.
- Utilized the hot water bath water in drum detoxification in Ankleshwar Unit 3.
- Enhanced the RO water utilization by 57% in last two years at Jhagadia Unit 5.
- Implemented water efficient equipment in manufacturing processes.
- Implemented metering, monitoring & targeting (MMT) to ensure the efficient performance of system.
- Dedicated technology group worked to reduce water demand.

Specific Carbon Emissions Reduction Initiatives

Greenhouse gases trap heat and make the planet warmer. Human activities are responsible for almost all of the increase in greenhouse gases in the atmosphere. Climate change due to greenhouse gas emissions will have a growing impact on business. Aiming to decrease carbon emissions in the Company's operating plants, following initiatives has been taken this year:

- Reduced 30 % CO2 emissions by changing energy mix and by reducing specific energy consumption as compared to baseline 2015-16.
- Implemented energy efficient equipment in manufacturing processes.
- Implemented metering, monitoring & targeting (MMT) to ensure the efficient performance of system.
- Dedicated technology group worked to reduce energy consumption as well as CO2 emissions.

Specific Waste Reduction Initiatives

The Company has taken special care to reduce, recycle and eliminate hazardous as well as non-hazardous solid waste. Aiming to decrease waste disposal from the Company's operating plants, following initiatives has been taken this year:

- Reduced 25 % specific waste disposal as compared to baseline 2015-16 from the Company's operating plants by operational excellency.
- Converted the process waste of Pendimethalin and Glufocinate plant into sellable by-products in Jhagadia Unit 5.
- Reduced specific waste disposal by increasing the yield of PMP and UPH production in Vapi Unit 0.
- Implemented waste segregation practices for efficient waste management
- Implemented the practices of 4R (reduce, recycle, reuse, reprocess) concept in Hazardous waste management
- Recovered value added products from waste.

Specific Wastewater Reduction Initiatives

Aiming to decrease wastewater discharge from our operating plants, following initiatives has been taken this year:

- Reduced 38% specific wastewater discharge from 2015-16 baseline by operational excellency.
- Reduction of effluent discharge in Unit 05 at Jhagadia by way of segregation and better recycling of different effluent streams. This is expected to result in better effluent management specially during the monsoon seasons.