

GREEN MANUFACTURING

Materials

Driven by its parent company's basic philosophy of Smaller, Fewer, Lighter, Shorter and Neater, Maruti Suzuki pays attention to optimum utilisation of raw materials in manufacturing of vehicles. The major materials used are steel coils, ferrous and non-ferrous castings, paints, thinners etc. The company also uses a large number of finished components that are sourced from suppliers for manufacturing cars.

Key Materials*	Unit	Materials used in manufacturing
		2013-14
Paints	KL	3,616
Steel Coils	MT	1,98,646
Ferrous Castings	MT	31,247
Non-Ferrous Castings	MT	29,353

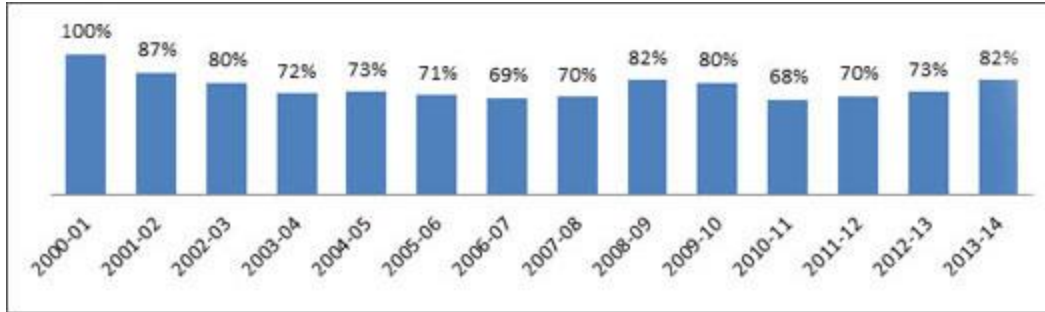
***Product mix impacts material usage**

Energy

At Maruti Suzuki, electricity is generated in-house through the natural gas-based captive power plants at Gurgaon and Manesar locations. These power plants provide stable and regular electricity for manufacturing operations. A small amount of electricity is also taken from the grid, as and when required. The company also has diesel generators available as back-up in case of power failure.

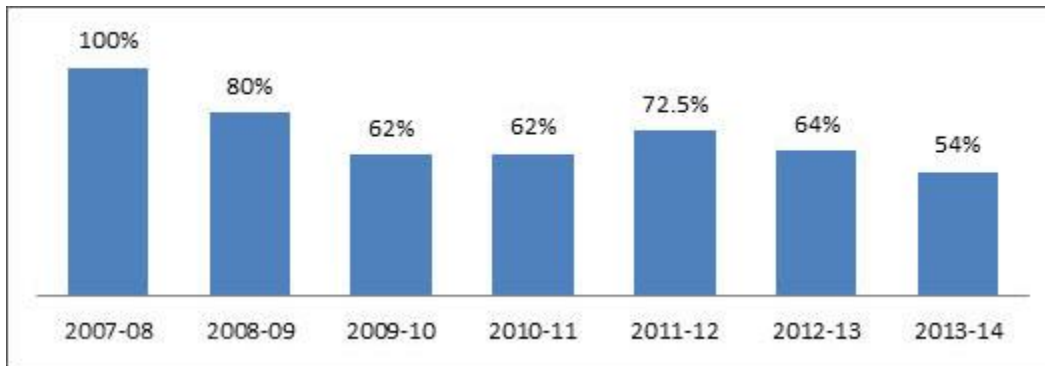
The direct and indirect energy used in the facilities for various processes in 2013-14 was 54,61,027 GJ and 52,325 GJ respectively. The charts below provide indexed figures of electricity consumption per car for the Gurgaon and Manesar facilities.

Electricity consumption per car, Gurgaon Plant (%) Indexed to base year 2000-01



Note: There is an increase in per unit electricity consumption in Gurgaon due to a reduction in production at the facility.

Electricity consumption per car, Manesar Plant (%) Indexed to base year 2007-08



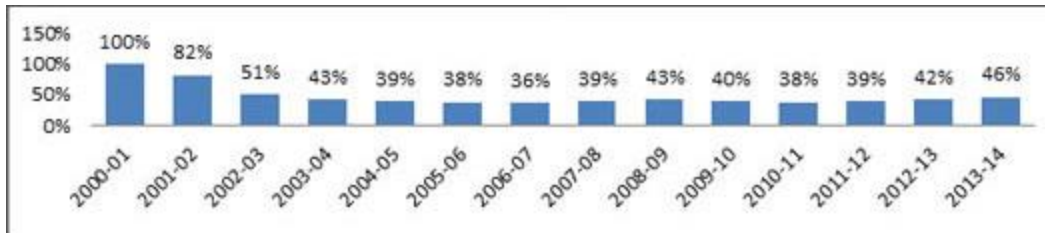
Water

Water conservation is an integral part of the Environment Management System at Maruti Suzuki. The company uses canal water for majority of its manufacturing processes and this helps in conserving ground water. The company has instituted methods of gathering and monitoring water-related data.

Sources of water & water consumption

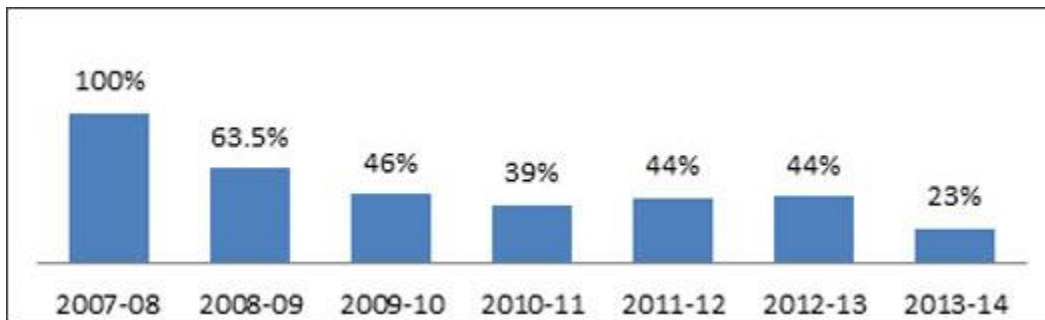
Sources	2013-14
Surface water (canal water)	1,980,981 m ³
Ground water (tube well water)	62,740 m ³
Rainwater	3,341 m ³
Recycled water	1,897,856 m ³
Total	3,944,918 m³

Water consumption per car, Gurgaon Plant (%) Indexed to base year 2000-01



Note: There is an increase in per unit electricity consumption in Gurgaon due to a reduction in production at the facility.

Water consumption per car, Manesar Plant (%) Indexed to base year 2007-08



Emissions

The company's major source of greenhouse gas (GHG) emission is fossil fuel combustion for power generation. This accounts for over 80% of the company's total GHG (scope 1) emissions. For the reporting period, the total scope 1 and scope 2 emissions (CO₂) were 307,517 T and 11,335 T of CO₂ equivalents respectively.

Effluents and waste

All the manufacturing sites of Maruti Suzuki have zero waste water discharge facility and the company does not discharge any amount of water outside the factory premises. In the reporting period, the company treated effluent amounting to 48% of the total water consumed. The recycled water was further used for some processes, irrigation and cleaning. The company also has Sewage Treatment Plants (STPs) for treating sewage water. The water from STP and ETP is reused within the factory premises.

At Maruti Suzuki, the hazardous wastes produced as a by-product of manufacturing include paint sludge, phosphate sludge, effluent treatment plant (ETP) sludge, incinerator ash and used oil. The used oil is sold to the authorized recyclers.

The Company has been sending hazardous waste to the cement industry for co-processing since 2010-11. This has reduced the need for incineration and land filling. The saleable solid wastes such as metal scrap and glass waste are sold to recyclers and re-users. The e-waste is disposed of through authorized recyclers only.

Waste	Unit	Hazardous waste generated
		2013-14
Hazardous waste	T	1,929
Used oil	KL	148
Hazardous waste sent to cement industry for co-processing	T	3,787