Environment Performance

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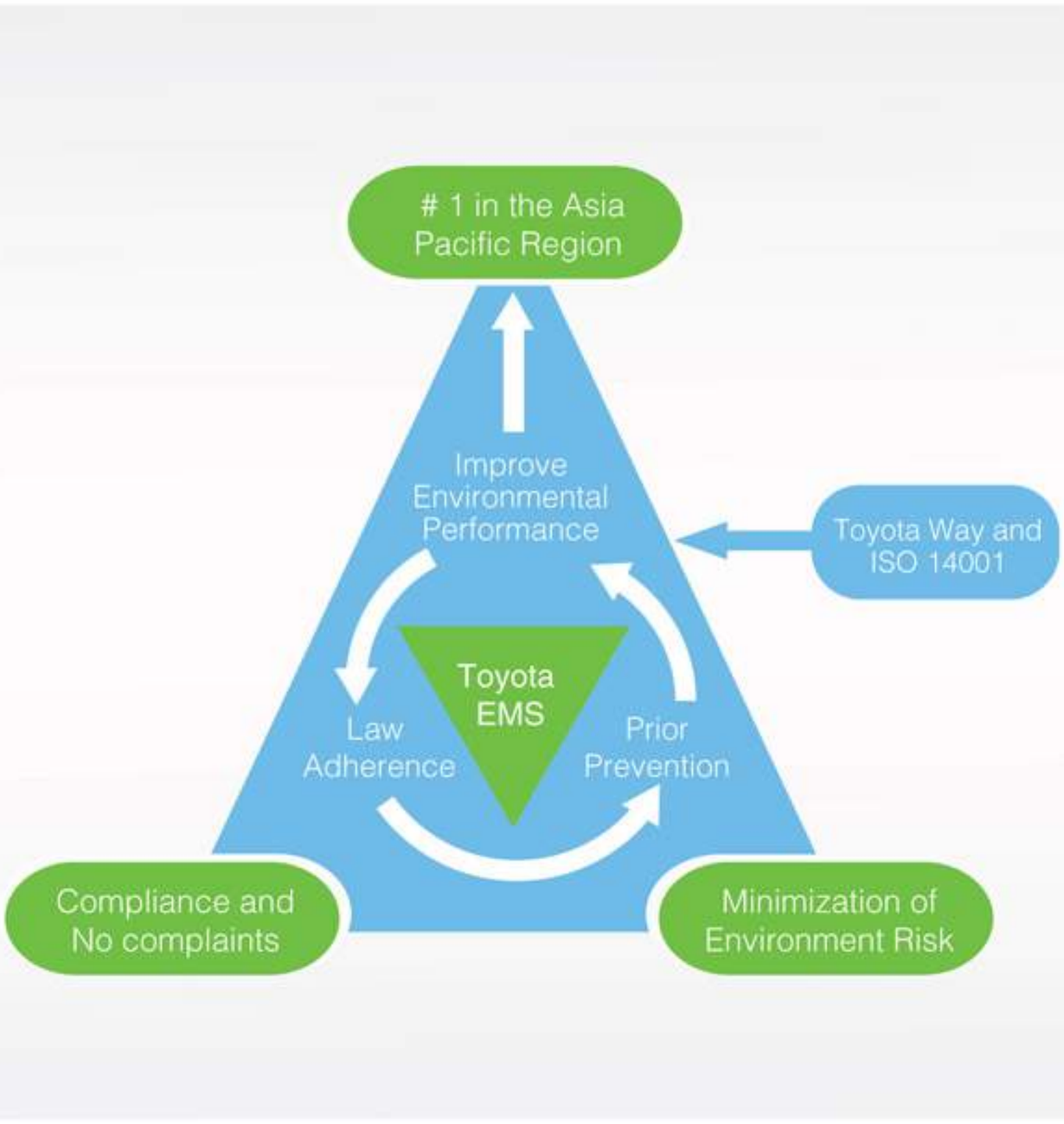
Toyota EMS Concept:



In concurrence with Toyota's Environment Action guidelines, TKM has come up with its own set of initiatives towards promoting sustainability at the manufacturing site in India. This section elucidates the activities taken up at the manufacturing site at Bidadi, Bangalore in detail.

The Toyota EMS (Environmental Management System) holds the key to environment management efforts across Toyota affiliates and at TKM alike. Globally, Toyota has encouraged all affiliate plants to be ISO 14001 certified and TKM obtained the ISO 14001:1996 certification within a year of commencing operations in India. Toyota EMS is applied to drive a continuous performance improvement cycle in line with site specific objectives and corporate policies and strategies. The key elements of the EMS system are 'compliance/no complaints' and 'environment risk mitigation'.

In order to achieve the objectives of environment policy, the Environmental Management System (EMS) has been used effectively. EMS forms the backbone of our commitment towards reducing our ecological footprint and we have been re-certified for ISO 14001:2004.

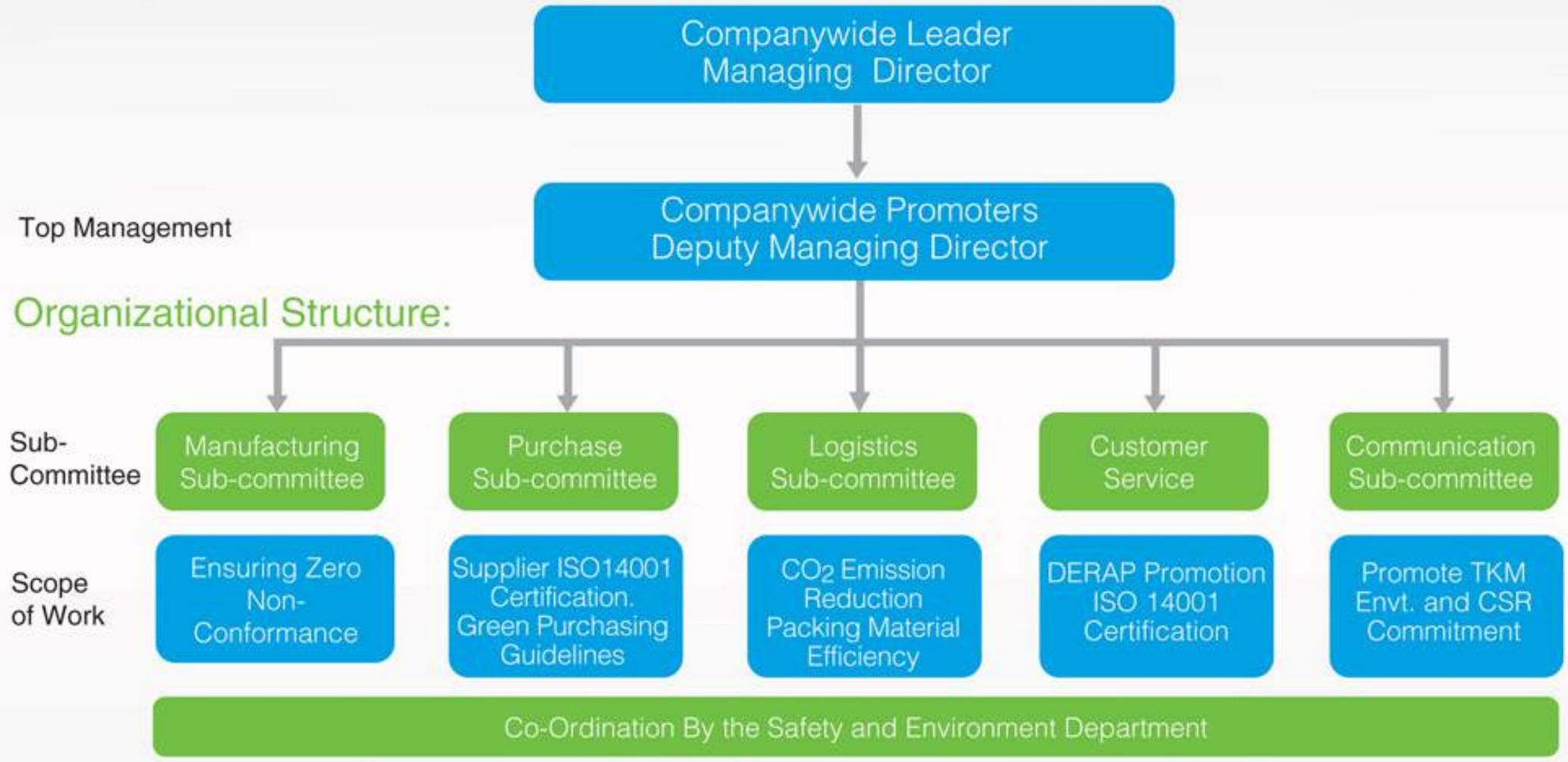
In a pioneering effort, TKM has been strongly promoting ISO 14001 certification among its suppliers and dealers. The core idea is to promote environment friendly operations among all our stakeholders. In a significant achievement, TKM has been successful in promoting ISO 14001 to 98 percent of its suppliers and more than 85 percent of its dealers.

The highest degree of abidance to EMS (ISO 14001:2004) by TKM has been recognized by the External Auditing Agency, which has awarded TKM with Zero NC for four successive years.

TKM Environment Committee

The Toyota Motor Corporation (TMC) has established a regional headquarters TMAP (Toyota Motors Asia-Pacific) at Thailand. This organization is intended to work towards energy conservation and environmental risk minimization. Toyota Kirloskar Motor also established an Environment Committee in its first year of production in 2001, to take care of environmental and CSR activities as a specialized organization.

Organizational Structure:



Performance Data

Environmental Action Plan

Toyota has been keen on responding to the needs of the environment as it does to its customer's requirements. It does so through its principles, policies and the Toyota Environmental Action Plan for Environment Management.

It has been TKM's long term objective to minimize the impact of its activities on the environment, thus contributing to maintaining a balance of the economic, social and environment aspects of sustainability. The Five Year Environment action plan sets the guidelines for TKM's Environment Management and for the promotion activities of its operations. The annual Environmental action plan is formulated based on the TKM Five Year action plan which in turn is derived from Toyota's Global Environment action plan. During the course of implementation of annual action plans, there is nearly a 4 percent reduction target so as to continuously improve the general performance of the previous year.

The following is a summarization of TKM's performance this year.

TKM five year Environmental Action Plan (2009 - 2010)

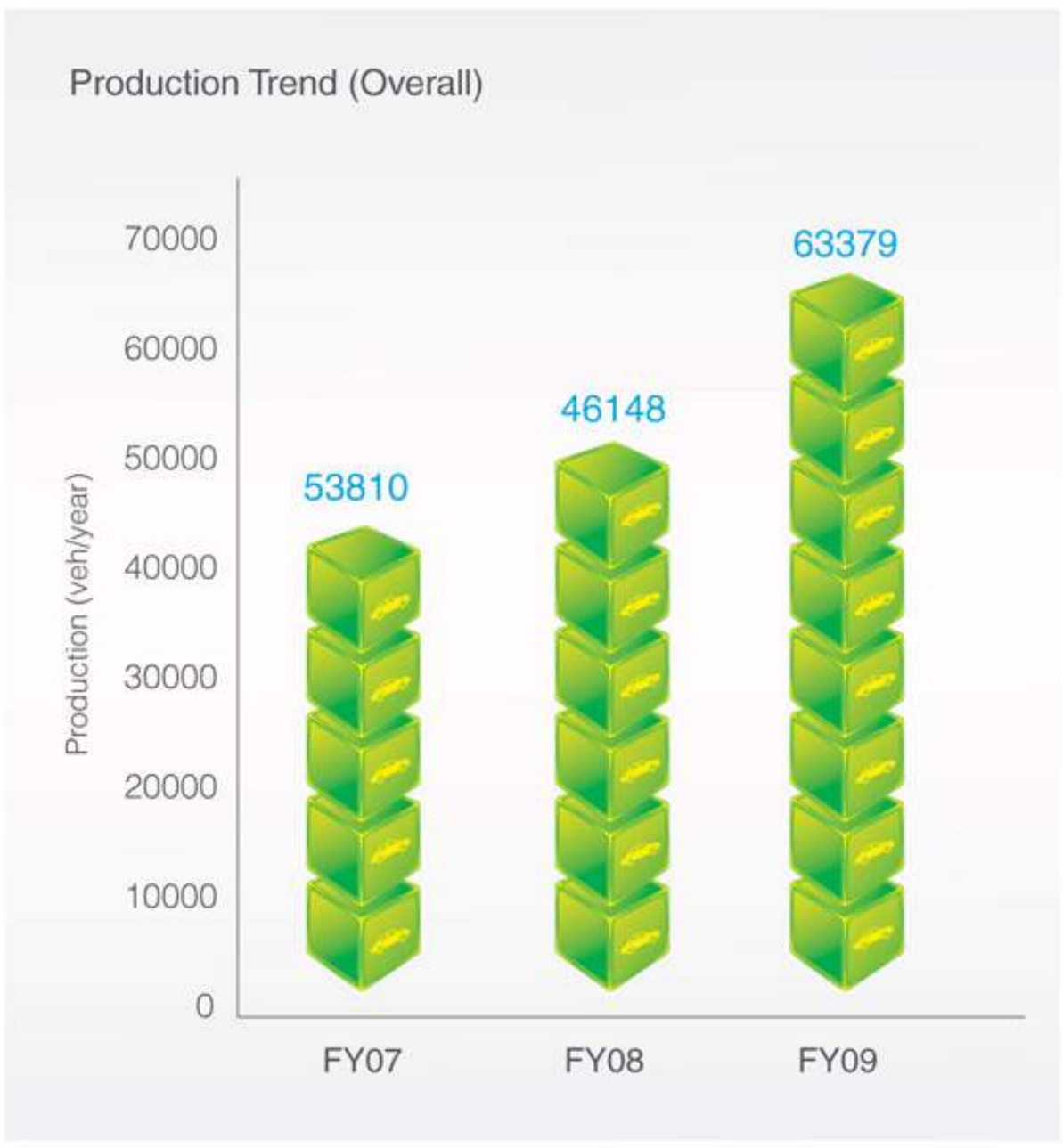
Action Item	Specific action items and goals	Performance Data	
		Target	Actual
	Production:	4% Redn.	4% Redn.
Reduce CO_2 emissions in production and logistics activities of each country and region.	Reduction in electricity consumption. (Purchased+generated)(kwh/veh) 20% based on Current year status	461 kwh/veh	416 kwh/veh
	Reduction in LPG consumption. (kgs/veh) 20% based on Current year status	29.2 kgs/veh	28.97 kgs/veh
	Reduction in energy.(Total of Electricity + LPG in GJ/veh) 20% based on Current year status	3.12 GJ/veh	2.93 GJ/veh
	Logistics :		
	Reduction in emission of CO_2/unit 15% reduction based on 2006 values	4%	4%
Promote the effective use of resources to further contribute to the realization of a recycling based society	Production :		
	Increase Yield ratio	68.5%	70%
	Hazard Waste reduction :	4%	26%
	Reduction in generation of Hazardous waste (kgs/veh). 20% based on Current year status (Chemical sludge+Phosphate sludge+Paint sludge)	7.95 kgs/veh	5.87 kgs/veh
	Non-Hazardous Waste Reduction:	2%	2%
	Reduction in generation of Non Hazardous waste (Miscellaneous solid waste) by 20% based on Current year	14.42 kg/veh	16.69 kg/veh
	Logistics :		
	Reduction of packaging and wrapping materials	4%	4%
Reduce water consumption	Reduction of water consumption by 10% based on current year status (m3/veh)	2%	2%
		4.56 m^3/veh	4.4 m^3/veh
Initiative to reduce VOC emissions	VOC reduction	48.8 gm/m^2	43.92 gm/m^2

Environmental Performance: KPI Management

Towards fulfilling our basic obligation to the environment, TKM aims to use resources wisely and reduce waste from its business activities. For many years we have been reporting our energy and water usage and waste and recycling volumes from our site in concurrence to the saying 'what gets measured, gets managed'. To guide our actions in this direction, the environmental policy commits us to control pollution and reduce energy at every possible opportunity. We strive continuously to minimize our water consumption, the generation of hazardous waste and air pollution and we continue to reduce CO2 emissions and improve our energy efficiency. Our periodic internal audits and external audits have strengthened our environmental management system. Our environmental performance under various key indicators in the last three years is summarized below.

Note: The key performance indicators are measured and controlled by units which are usually based on the per car measurement over the entire year.

The market conditions for Toyota vehicles in the Indian automobile market were most unfavorable in 2008 and grew positively in 2009, consistent with the global market recovery. This has directly impacted a few environmental parameters as they are related to the fixed manufacturing demands.



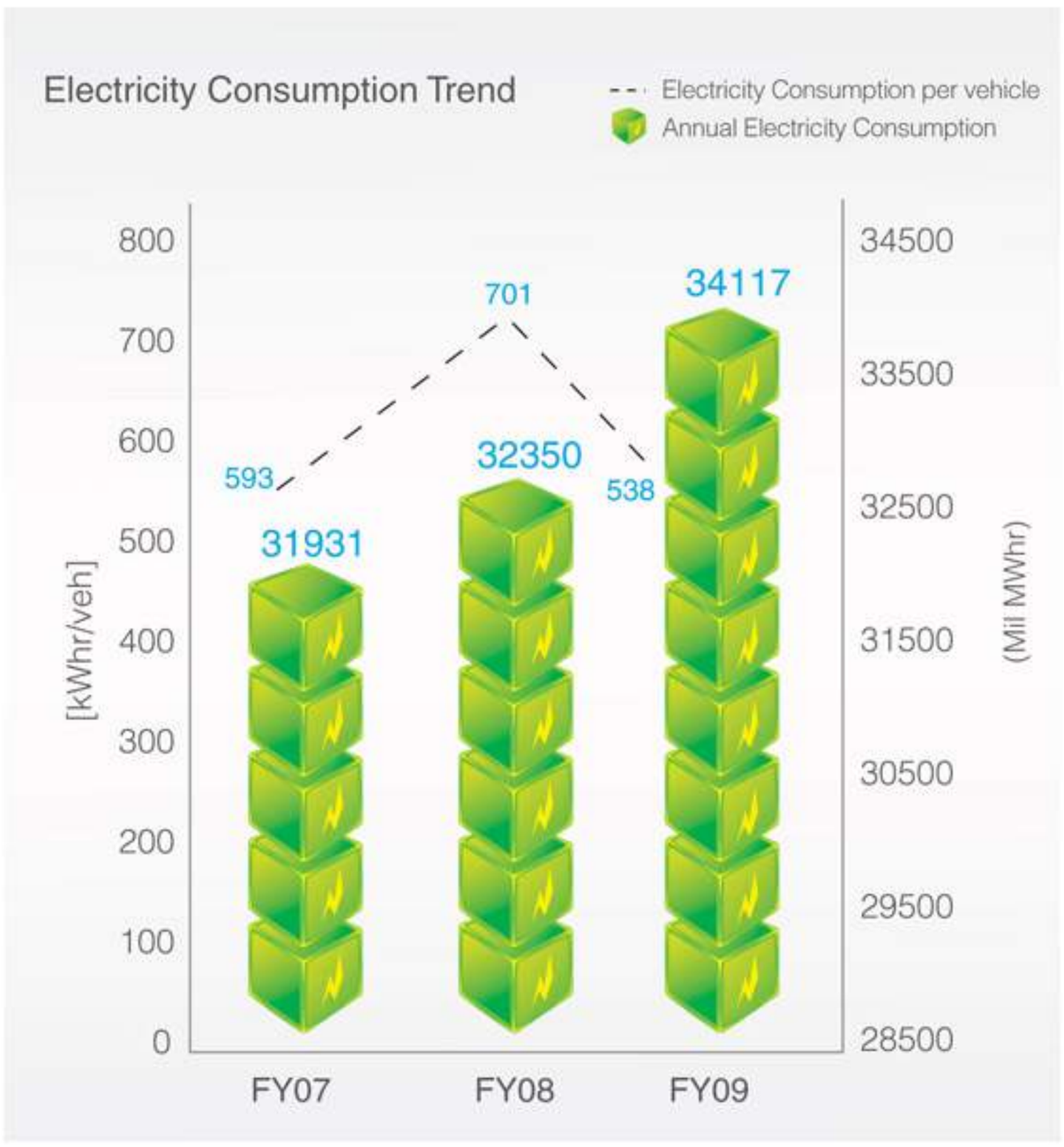
Energy & Resource Conservation Activities towards maximizing the efficiency of processes

Energy and resource conservation form the basic responsibility of any company aspiring to be sustainable. Grappling with the ever increasing consumption of fossil fuels for energy production and the consequent CO2 emissions is a major hurdle towards achieving environmental sustainability. TKM is promoting energy conservation activities in the manufacturing plant by embracing the Five Year action plan which sets the annual reduction targets for all environment parameters.

a. Electricity Consumption:

TKM's electricity consumption in the production area has decreased as compared to last year. By the end of 2009, the average amount of energy required to produce a vehicle decreased by 23.25 percent and to 538 kWh per vehicle. This decline in consumption may be attributed to the increase in overall production volumes which led to the decrease in per vehicle consumption due to fixed loads. In 2009, TKM focused on ensuring the sustenance of energy saving activities and kaizens with the following:

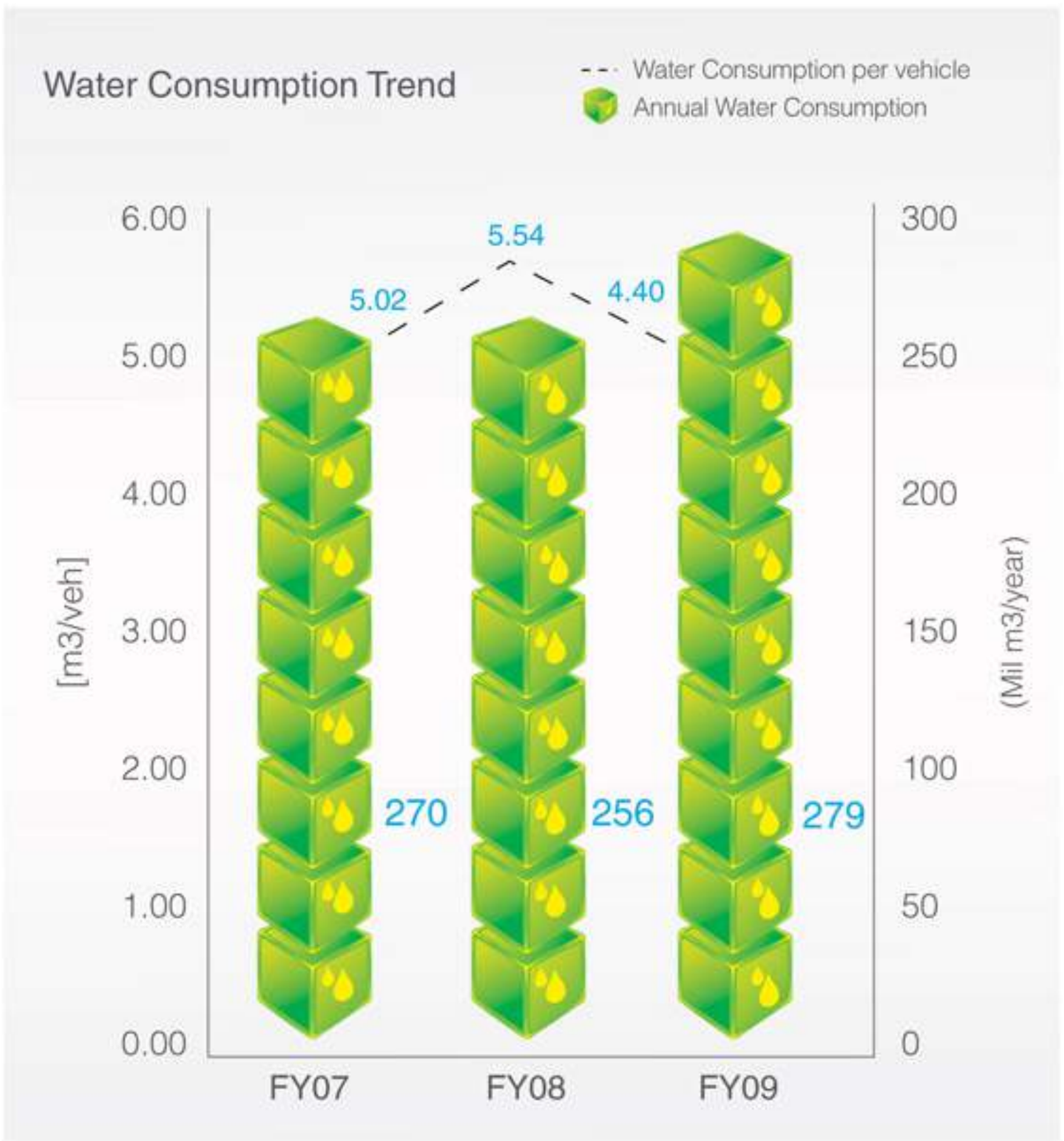
1) High and low pressure air lines
2) Energy training to TL's and GL's
3) ESCO kaizen implementation.



b. Water Consumption:

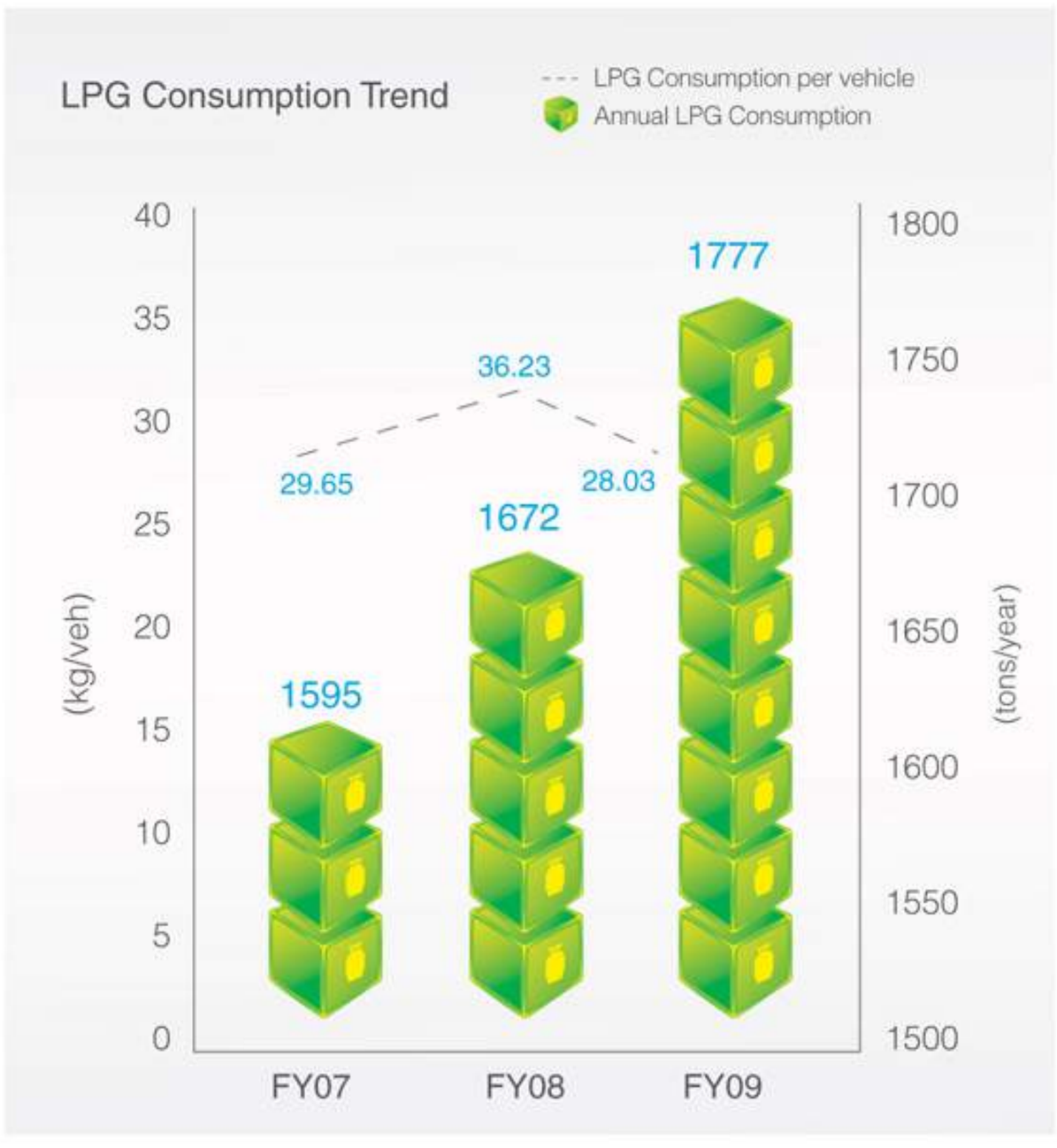
During the reporting period, the amount of water required to produce one vehicle decreased by 20.5 percent as compared to the previous year, to reach a minimum of 4.4 m3 per vehicle. Water usage levels, like those for energy, were affected by the increase in production volume. Considerable efforts were made towards monitoring and standardizing day-to-day consumption.

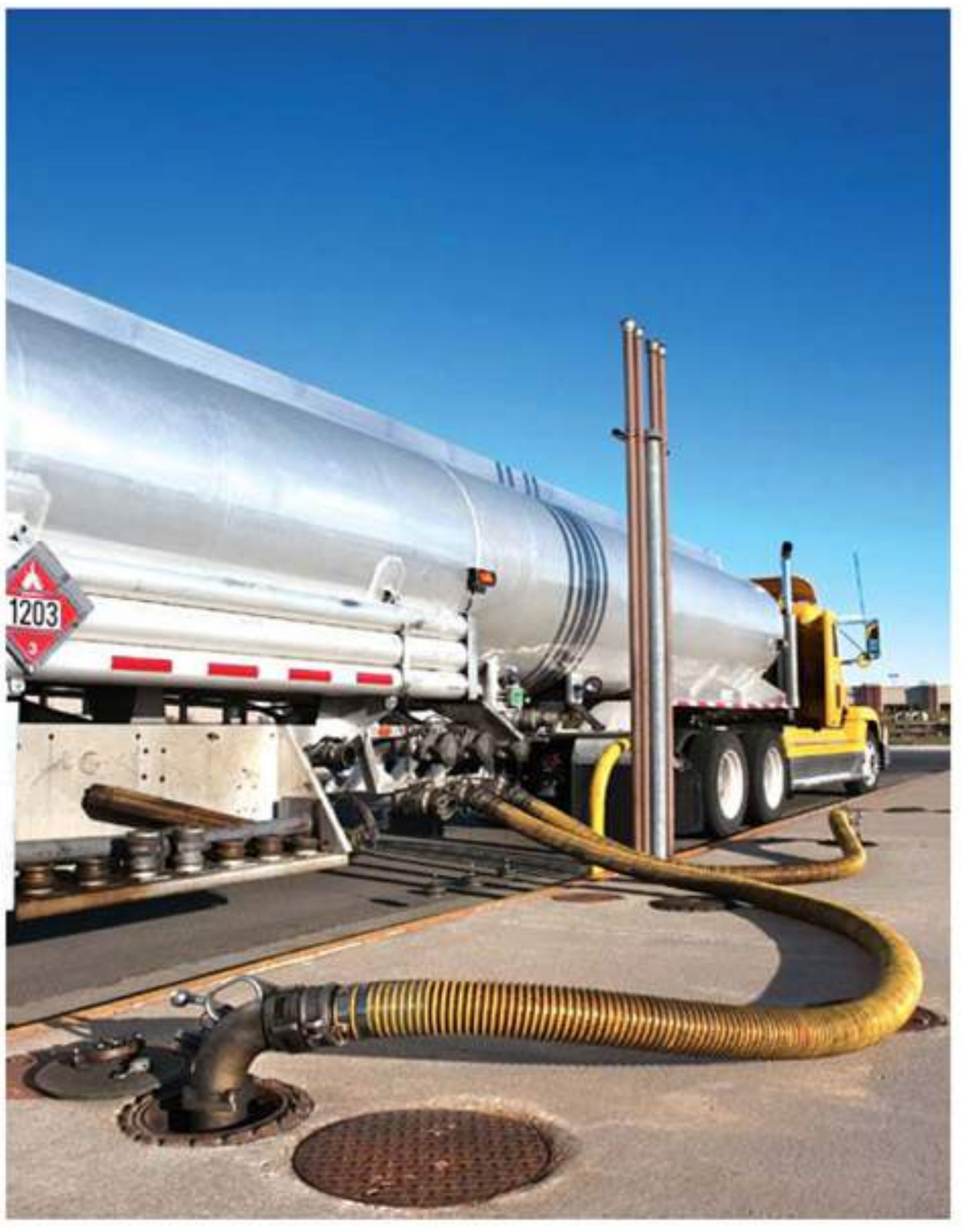
TKM continued to target the elimination of unnecessary water usage through kaizen and by the implementation of best process technology such as Membrane Bio-Reactor (MBR) and Reverse Osmosis (RO) treatments that allow the recycling of wastewater.



c. LPG Consumption:

Liquefied Petroleum Gas (LPG) serves as the prominent primary energy source for heating purposes in ovens and boilers at TKM. The LPG usage was also observed to be on a decreasing trend as compared to the last financial year.





This year, the LPG consumption fell to an average of 28.03 kg/vehicle by 22.63 percent as compared to the previous year. The main activity that was taken up at the paint shop to conserve LPG was the Oven and Booth temperature control optimization and the management of the chiller operation based on seasonal variation. However, owing to the increase of demand in the market, the per vehicle consumption decreased due to the fixed consumption of LPG in other processes, irrespective of the vehicles produced.

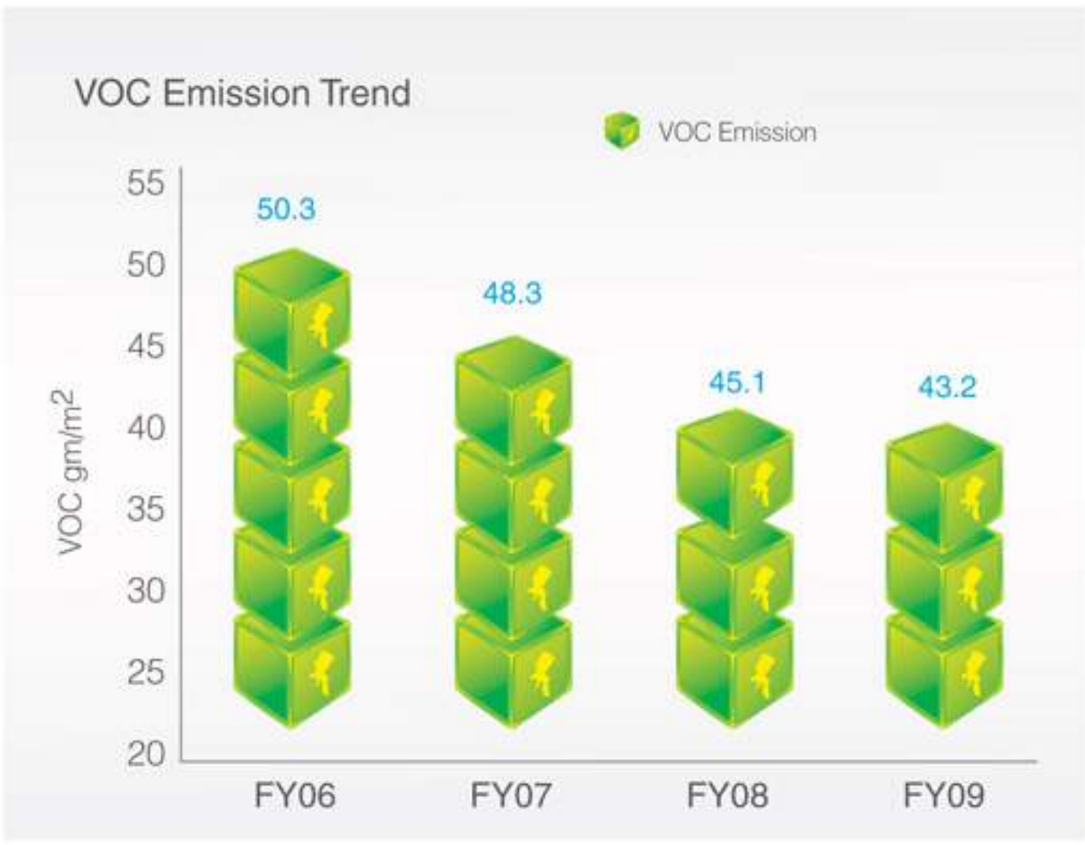
Towards Zeronizing Impacts on Environment by Reducing Emissions & Waste

Concurrent to the Toyota Earth Charter which stresses on zero pollutant discharge, TKM has also adopted the same in its Environmental Policy. The areas of concern related to the impacts of the manufacturing facility on the environment include the emission of pollutant gases (CO2) and vapors (VOC).

a. VOC Management

Thinner based paint used on automobiles contains VOCs (Volatile Organic Compounds), which are known to cause odor and health hazards. They have also been attributed to the formation of photochemical smog. It is therefore necessary to reduce their use.

Although, there is no requirement or any law on VOC emission control in India, we at TKM have proactively taken up activities aimed at reducing VOCs. This aims at creating a better and safe environment for the future generations as the VOCs have the potential of accelerating global warming and producing photochemical smog.



There has also been a marginal decline in the VOC emission by 4 percent with the implementation of various kaizen (improvement activities). Transfer efficiency improvement in paint guns and robots through distance reduction, enhancing washing thinner usage in bumper and resin shops, solvent consumption reduction in manual cleaning during the painting process and in robot operation are a few practices that have been implemented. By following these practices, we have retained the global number one position among all Toyota affiliates having thinner based painting processes.

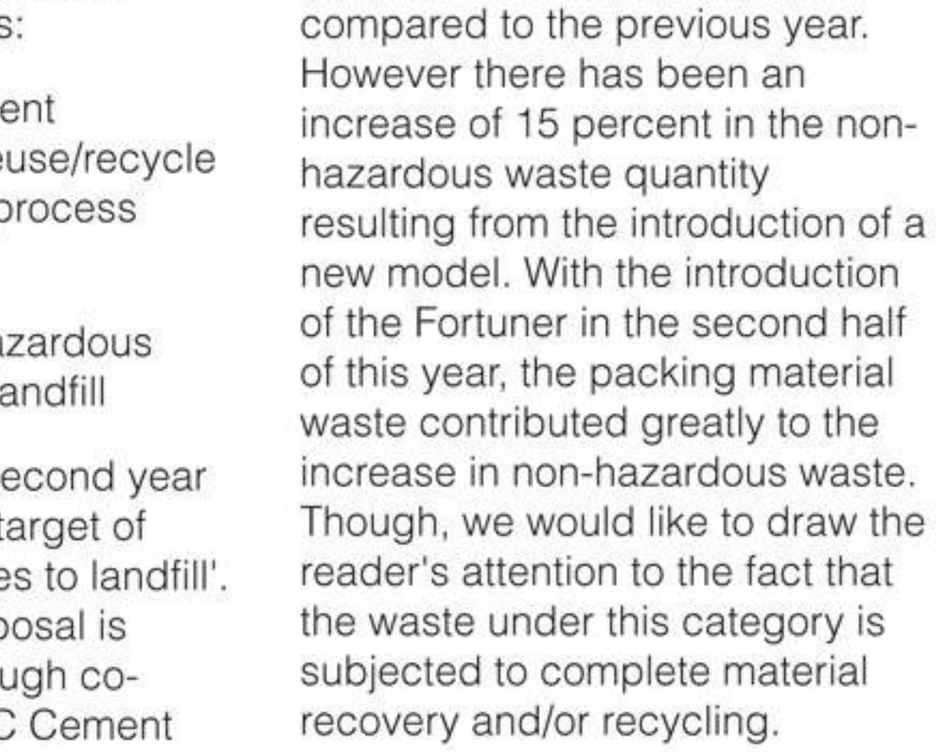
b. Waste Management

With the aim of achieving 'zero wastes to landfill', TKM has been able to reduce its ecological footprint in terms of waste disposal. With the ideology of 'source reduction is to waste what preventive medicine is to health', we have two main action guidelines towards our waste management activities:

i. Ensuring 100 percent segregation and reuse/recycle of non-hazardous process waste

ii. To achieve zero hazardous waste disposal at landfill

TKM has entered its second year in accomplishing the target of 'zero hazardous wastes to landfill'. Hazardous waste disposal is being carried out through co-processing at the ACC Cement Plant at Wadi, Gulbarga in Karnataka. In 2009 a considerable reduction in hazardous waste quantum has been achieved in the light of activities promoted to reduce unnecessary moisture content in the sludges. This led to an average reduction of 26 percent in hazardous waste as compared to the previous year. However there has been an increase of 15 percent in the non-hazardous waste quantity resulting from the introduction of a new model. With the introduction of the Fortuner in the second half of this year, the packing material waste contributed greatly to the increase in non-hazardous waste. Though, we would like to draw the reader's attention to the fact that the waste under this category is subjected to complete material recovery and/or recycling.



Eco-initiatives : Towards an Eco-Friendly Plant

TKM approach to a Sustainable Eco-Friendly Plant

Toyota Kirloskar Motor is continuously moving towards sustainability in all its operations to reform itself into an eco factory in harmony with nature. TKM has devised and implemented a comprehensive approach towards sustainability right from the grass-root level, i.e. the employees. In this regard, a methodological approach of Eco-Mind, Eco-Kaizen and Eco-Showcase have been taken up to sensitize our employees and the community at large. We aim to promote sustainability in all our operations.

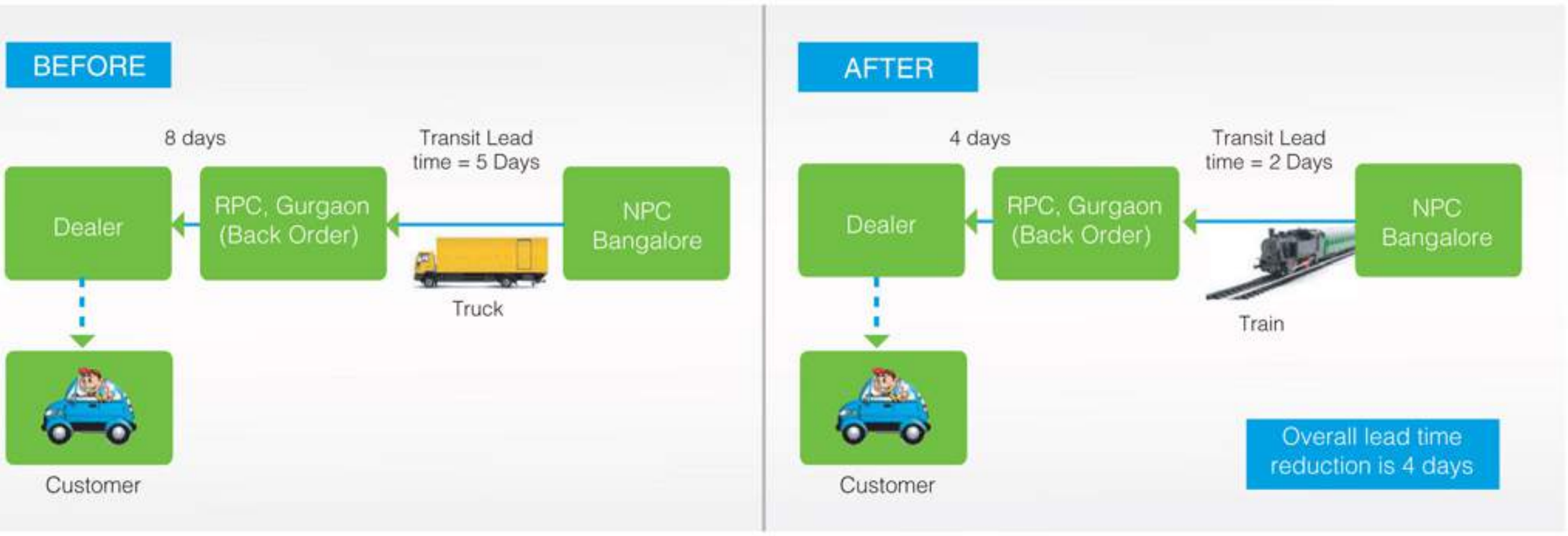
Eco-Mind: Eco-Mind is a culture that we believe must get imbibed into the minds of our team members so that they start thinking about the environment in their lives both inside and outside the company. Eco-Mind activities include all initiatives aimed at creating an environmentally conscious citizen. In other words, an employee with an Eco-Mind will always think and act in the best interests of the environment.

Eco-Kaizen: Eco-Kaizen is a continuous improvement activity that can be executed at the work area. Eco-Kaizen includes all the improvement initiatives that are taken towards creating a sustainable plant and a low carbon society.

Eco-Showcase: Eco-Showcase is an effort to promote TKM's eco spirit to the community and the neighborhood. The activities include social outreach activities involving our external stakeholders whether they are our suppliers, dealers or customers and the surrounding eco-system too.

Several activities have been initiated at TKM to promote Eco-Mind, Eco-Kaizen and Eco-Showcase among the team members. Some of the key activities that have been implemented in the past year include:

Logistics Kaizen



Kaizen Idea:

Train Logistics Introduction in Serviceparts Operation between NPC (National Parts Center, Bangalore) and RPC (Regional Parts Center, Gurgaon) for back order parts.

Trial Period:

July 2009 to August 2009

Background:

The Serviceparts flow between NPC (National Parts Center, Bangalore) and RPC (Regional Parts Center, Gurgaon) was through Transystem trucks which had a high transit time. The emergency/back order parts reaching the customer on time was not always guaranteed.

Action Taken:

A trial survey was conducted to check the feasibility of transport by train and this had the positive result of saving lead time. By this kaizen we aim to be the best customer service in town and achieve enhanced customer satisfaction. Since September 2009 all RPC back order serviceparts are transported by train six days a week.

Result:

- Overall lead time reduction by four days.
- Improved customer service, customer satisfaction and quality of delivery.

Voluntary Afforestation Activity

Continuing our efforts to create an environment friendly company, voluntary afforestation activities were conducted within the company premises. About 600 team members enthusiastically participated in voluntary afforestation programmes between August 29 and September 5.

Keeping up the good spirit created on June 21, team members voluntarily participated to plant another 10,500 saplings after their first work shift. This year, TKM has planted about 64,200 saplings over an area of 21400 square metres within the manufacturing facility. The average plant survival rate was about 98.8 percent.

Glimpses of our Voluntary Afforestation Activity