

Sustainability Outlook

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Sustainability Reporting

Extended Producer Responsibility

Financing Sustainable Infrastructure

Green Leap needed to shape global leadership



Moving from operating defensively,
to capturing advantage

RISING FUEL PRICES COMBINED WITH EMISSIONS NORMS WOULD CATALYZE INNOVATIVE MOBILITY SOLUTIONS



Sustainability Outlook spoke to Arvind Goel, President & Business Head at TATA Autocomp Systems Ltd. about the impending compliance requirements in the Auto Industry

Is policy compliance always a constraint or can it also be viewed as an opportunity?

In my view, it is a mindset issue. If viewed openly and positively, it will always be an opportunity. But the real question is whether to work for the policy and regulation compliance or look beyond. There is definitely a first mover advantage with innovative cost effective mobility solutions. The one with the vision will be able to see beyond the horizon and once envisioned, will ensure that he will reach there. For example many aggregates in the current automobile system are underutilized according to me.

There is still a huge potential for weight reduction through usage of engineering plastics, composite materials, waste energy recovery, usage of starter motor and generator as power train boots, reduction of tyre friction, reduction in vehicle resistance generated by air flow.

Could you describe some of the initiatives being undertaken by TACO to drive sustainability into mainstream business?

We at Tata AutoComp have mapped the carbon footprint of each of our operating units and have taken a target to reduce the carbon tonnage added per crore rupee of value-add. We have put in place a mitigation plan and are actively working on the same.

This is being monitored at the central level by our Group CFO. Besides, we encourage creation of green covers – each of our manufacturing facilities have water bodies, actively harvest rain water and also conserve water and natural resources.

While this is on the material resource front, on the human resource side, we look at measures that would help sustain our business. The industry is facing a shortage of skilled manpower. At the same time we have an ironical situation where the unemployment is very high. To harness the human capital available in semi-urban/ rural areas, we have set up skill development centers across our operating units. These would impart skills as well as give on the job experience to the interns and make them employable in the future. We are also engaged with 2 ITIs under the Government of India's PPP initiative.

Tata group is a pioneer in many ways. As a senior business leader, do you feel there is a strong case for companies to proactively adopt sustainability related measures such as resource conservation?

At the Tata Group, we firmly believe that the society is not a mere stakeholder of our business but the very purpose of our existence. It was with this philosophy that our founder Mr. Jamsetji Tata founded the group and this philosophy has been the guiding principle for all Tata Group Companies. Hence, all Tata Group companies proactively adopt sustainability related measures.

We are well aware that the ecological balance needs to be maintained in order to ensure long term availability of natural resources. It is also imperative for us to ensure that we take care of the environment so that our future generations do not inherit a problem, but inherit a world where they can grow and foster. Hence, we at the Tata Group, have been actively involved in resource conservation.

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Most Tata Group companies have mapped their carbon footprint and are actively taking measures to reduce this carbon footprint. The measures include turning the offices green as well as conserving power and fuel by optimizing operating efficiencies and looking at alternate technologies.

But we do not stop here. To give some examples where some companies within the Tata Group have intervened one can cite the example of how Tata Chemicals worked on a program to save the Whale-shark. This fish was hunted in large numbers off the shores of Gujarat and commanded a very high price in the international markets. A time came when the Whale-shark was declared as an endangered species. Tata Chemicals conducted road shows and street plays to educate the local fishermen not to hunt this fish and today the Whale-shark is off the endangered list.

Another case in point is the hills of Lonavala. The tribal folk living in the hills of Lonavala were cutting the trees for fire-wood and also to sell the wood for livelihood. Over a period of time the forest cover over the hills of Lonavala (Western Ghats) reduced to an extent that the annual rainfall in this area reduced. Tata Power intervened and conducted many educational programs within the tribal community. The solution was not to prevent the tribals from cutting trees, but in educating them to preserve the eco-system. Tata Power employed horticulturists who educated the tribals on planting fast growing trees, which trees to cut and which to preserve and how to ensure that the green cover is not lost. Today the hills of Lonavala are green again and the annual rainfall is back to normal.

While in the first case, there was no connection whatsoever with business, in the second case it was linked to core business sustainability. Tata Power relies on rain water to generate hydro-power. Drop in rainfall had a long term threat on the power generation potential. Hence this intervention was necessary.

There are many such examples within the group where companies have gone beyond their scope of work to conserve and nurture resources – both natural and human.

What are the drivers for businesses to consciously undertake resource conservation?

The greatest driver for any business to undertake resource conservation is the long term sustainability of the business.

It is imperative that each business maps its long term sustainability challenges from societal and environmental challenges. This will enable the business to see long term impacts on its sustainability and undertake conservation measures. The example above of Tata Power engaging in conservation and active protection of the Lonavala forests is a result of that. Some of the businesses that have a high dependence on natural resources perhaps realize the need for conserving sooner than others. Each resource, human, capital, social and environmental has an impact on the long term sustainability of the business and the sooner the business realizes this inter-link, it would work towards conserving these resources.

What are the key challenges preventing businesses from adopting such measures?

Today, businesses are under tremendous pressure to deliver returns to the shareholder. Even the shareholders are looking for quick gains and returns on their investments. Hence the business leaders are more caught-up in transactional issues and have a shorter time horizon in view. The other factor perhaps is that the threats do not seem immediate and hence do not demand immediate attention. Consequently, while there maybe sensitization, the actions are often pushed onto the back burner.

What are the areas of immediate improvement in the auto component industry from a resource efficiency stand point?

The immediate improvement is happening at two levels viz. the macro or industry level and micro or operational level.

At a broader level the auto-component industry is today investing in advanced technology that would improve the end product which is the automobile. The auto-component industry is constantly striving at weight reduction and miniaturization - either driven by competitive market forces or regulations. This in itself ensures that the automobiles are lighter, more fuel efficient with highest levels of end-of-life recyclability. One of the most effective tool is VAVE – Value Added Value Engineering; fundamentally this entails revisiting everything we have done to see what needs to be re-engineered to remove the NVA.

One Business Unit of TACO, Tata Toyo Radiator achieved a weight reduction in range of 15% to 20 % using this tool. This would mean lowering of the carbon footprint in multiples of the weight reduction.

“Indian auto component industry fares negatively as compared to their counterparts in China, Brazil, Indonesia and Thailand”

At a very micro level, the auto-component companies are improving their overall operational efficiencies to ensure maximum resource utilization. But this is actually input-cost driven. The wafer-thin margins, on which most auto-component manufacturers work, drives the manufacturers to ensure optimum efficiencies in resource utilization – man, machine, material and money. It is becoming more of a survival issue.

In terms of overall effective utilization of assets, Indian auto component industry fares negatively as compared to their counterparts in China, Brazil, Indonesia and Thailand. The levels of rejections and rework are still in double digit and as we move down, the tiers show increasing trend. Addressing these wastages requires a different point of view. They need to be looked upon as aggregate waste in the entire supply chain, rather than a parochial view of being company or unit specific.

Time has come to really go to the depths to understand whether the low cost country advantage is really because of the labour arbitrage or due to misuse of labour policies, especially the contract labour system. The use of ‘cheap’ labour is one of the contributing factors to higher reworks and rejection amongst the lower tier suppliers.

At a micro level, there are also several measures being implemented focused at shaping manufacturing units into water neutral and subsequently water positive facilities.

Other simple initiatives include use of wind driven roof extractors to improve ventilation in shops, use of LED tube lights, transparent polycarbonate roof sheets to improve light ventilation, etc.

How will the impending compliance requirements (especially in context of fuel efficiency standards) impact Indian businesses in the sector?

Bharat Stage IV norms being followed in the metros and BS III in rest of the country are in many ways aligned to the European Union's emission norms. Presently there is lag of one and two levels respectively with the corresponding European emissions norms, which will increase to a lag of 2 & 3 levels respectively. Time has come to leap frog to overcome this lag and be at par in the next 2 years. With new technologies like bio-fuels, advance emission systems, diesel particulate filters, it is now a fairly achievable task.

The impact and opportunities can be classified as Pre-ignition and Post-ignition for the sake of easy understanding.

On the Pre-Ignition front, the current efforts to meet emission norm are clearly driven towards miniaturization of engines, i.e. a 2 litre diesel internal combustion engine becoming 1.3L and further being reduced to 1000 cc with power levels being maintained with the help of turbochargers/ superchargers. In near future, this would further be enhanced with extensive mild hybridization of power-trans viz. engine start-stop, regenerative braking, starter motor to be used during low speed cruise in congested traffic conditions, exhaust gas regeneration, bio-fuels etc.

On the Post Ignition side, focus needs to be on improvement of quality of exhaust gases from internal combustion engine with use of in-line CATCON, manifolds for cold start, dual muffler for gasoline engines, particulate trap for diesel engine, urea dosing system.

In the longer run, the continuously rising fuel prices combined with stricter emissions norms would see new players emerging with innovative mobility solutions, which would be beyond the conventional definition of an automobile. The threats are clear and persistent and the disruptive forces will get stronger with passing time.

Arvind Goel joined TACO in 2008. He has 29 years of experience in managing projects, manufacturing, vendor development, materials, marketing, exports etc and has developed diesel engines, gear box, axle and cab for heavy and light commercial vehicles. Prior to joining TACO, Arvind Goel worked for 26 years with Force Motors Ltd as President and COO of Man Force Trucks.