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Clear roads to investment

A sincere effort from the industry towards ever greater R&D is required for the customisation of road-building equipment.

For India, an efficient road network is a must. Indeed, road construction and maintenance has been one of the major thrusts of central government. Road sector expenditure has increased from three per cent in the Ninth Five-year Plan to almost 12 per cent of GDP in the current one, and has been primarily for national highways and rural road development programmes.

Road construction equipment contributes between 21 and 25 per cent of a project's total cost, which should provide ample evidence about the growth potential of this industry segment. It has undergone huge changes since its early days.

Liberalisation gave it a much-needed push, and Indian manufacturers tied up with foreign partners for R&D and product improvements. Previously, while one single static road-roller was used to compact everything from sub-grade and sub-base to base and black-topped layers, today, different types of roller — soil compactors, tandem vibratory rollers and pneumatic-tired rollers — are used for each layer.

The demand for hot-mixed plant has moved from small capacities like 20-30 TPH to 120-400 TPH in road projects, and conventional rigid paves are increasingly being substituted with slip-form and sensor pavers in concrete roads. The market is already familiar with wet-mix plant, cold and hot milling machines, pavers for base course and cold and

hot recycling machines that reduce the thickness of road crusts, and also have the ability to recycle used materials.


While new technology is appearing, its pace of adoption is slow — but this should change. Quality equipment is increasingly being used to build national highway, even if traditional machinery is still dominant on state roads. However, road construction companies adopting new technology will have an edge over competitors, and soon they will have no alternative but to invest.

Equipment quality plays a pivotal role not only because it provides a levelled and smooth finish but also ensures long life. We must maintain a bare minimum quality benchmark that must be adhered to.

Most reputed road construction equipment is of European or American origin, but we have been seeing that many of the products being introduced in India are not from their most recent ranges. One reason for this might be the high price of new equipment internationally, and many companies still use India to clear their old stock. Some manufacturers assemble their equipment in India, but this is limited to inserting Indian engines and making some cosmetic changes. We want customisation to be based on the availability of components and lubricants in the Indian market, as well as to be suited to Indian climatic conditions and local manpower skills. A sincere R&D effort is required from an industry perspective.

The cost of raw material, such as aggregate, bitumen, cement, steel and fuel, plays a major role in road construction. By still keeping the cost of raw materials at market level, but also by following standard quality procedures and deploying quality equipment, the life of our roads should almost double. Quality equipment should be covered in the cost of initial investment, and its higher residual value on account of its longer shelf life should give better profitability compared to low-quality and cheaper equipment.

SPML Infra always uses high-quality equipment, such as road scrapers from Wirtgen that remove the top layer of an old road and recycle it through a modified batch-type asphalt plant. By using this combination of modern machinery, we are able to save up to 40 per cent of the volume of the material being used, thereby saving on cost. Indeed, the saving may be almost 10 times compared to the investment required for the combined purchase of upgraded asphalt plant and scraper.

SPML also uses high-precision laser based survey instruments fitted with GPS and GPRS, and these are attached to computerised graders and paver finishers. This gives a great finish to road surfaces, resulting in savings in travel time and fuel consumption that in turn reduce pollution and impact on the climate. 

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