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**Keeping infra projects on track will surely rejuvenate
the entire construction gamut**

Connecting India

The need for better quality and technologically advanced construction machinery



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ROADS & HIGHWAYS

SECTOR OVERVIEW

Road connectivity is an important factor for economic and social growth of a country. The road network in India spans over a massive 3.3 million kilometers is second largest in the world. The National Highways which is only 2.2% of the total road length carries almost 40% of the traffic; state roads with 18% of road length carry another 40% of traffic. About 20% of the road network carries almost 80% of the traffic. The remaining 20% of the traffic uses the 80% of town and rural roads which are all single lanes. The road density in India is only 2.75 km per 1000 people as compared to the world average of 6.7 km.

With the growing urbanization and the world coming to India, we are compelled to develop the high quality road infrastructure to meet the economic growth requirement of the country. The Planning Commission of India has earmarked INR 4,300 billion expenditure for roads & bridges during the 12th Five Year Plan. A major portion of it, almost

50% has to come in the form of private investment. But the higher cost of financing, shift in emphasis to construction contracts, tendency to avoid less lucrative road projects, non-availability of land and issues related to environmental clearance are the main reasons for slowdown in this sector over the past few years. Reports suggest that about 60% of the awarded national highway projects are yet to achieve financial closure.

The road projects in India are funded by a variety of agencies, central and state ministries, road funding agencies, market borrowing, private investment, assistance from multilateral agencies like World Bank, Asian Development Bank, Japan Bank for International Cooperation and others. But in recent years the funding from traditional sources has been reduced and more road projects are being awarded on PPP/BOOT basis for long term contract.

The capital value of the road network and its development has to be closely watched and its financial maintenance requirements adjusted accordingly. The need for better quality and versatile machinery and equipment is now more

apparent than ever before, given the size and complexity of the road projects, emphasis on quality, and shortage of skilled manpower. We have to adopt new technologies which will not only help in terms of accuracy, improve quality of output but reduce the cost of construction also. To meet the existing and growing demands of road constructions, we have to get the new technology and machinery at the earliest possible time and to develop our own facilities.

CHALLENGES

There are some serious challenges facing by the road sectors that are motivating new approaches to how we design, build, operate, and maintain roads, bridges and other infrastructures. Reports suggest that outdated and substandard road and bridge design, pavement conditions, and safety features are factors in 30% of all fatal road accidents. The latest figure from all India suggest that on average, there are 390 lives lost every day due to road accidents and more than 1.5 Lac fatalities occurred in last year alone.

In terms of technological advancements, India is still trailing behind the developed world. It is said that we are decades behind Europe in the field of road construction. The important challenges are high interest rates, reduced availability of funds, execution slowdown, and increased competitive intensity. The execution on many of the



COMPANY'S PERFORMANCE

SPML has a legacy of more than three decades of managing and implementing over 400 projects; world class infrastructure for Water Treatment and Transmission, Power Projects, Municipal Solid Waste Management and Civil Infrastructure including Roads & Highways, Bridges across India on EPC (Engineering, Procurement and Construction), PPP (Public Private Partnership) and BOOT (Build-Own-Operate-Transfer) basis. SPML Infra has established sectorial dominance in these years and has received new orders worth over Rs. 2000 Crores in the past financial year.

SPML has also completed and commissioned a number of road and bridge projects including state highway no. 6 and 18 in Jamui district and state highway no. 59 and 66 in districts of Saharsa, Supaul and Madhepura in Bihar. These two projects put together has 172 Kilometers of two lane highway with pavements, covered drains, metal beam crash barrier etc. SPML has also completed 962 meter long Y shaped flyover at Rangrajapuram and 310 meters of Rail Under Bridge along with 620 meters of Service Road with Cycle Track at Villivakkam in Tamil Nadu near Chennai Railway Station. The facilities are a boon for local residents travelling to Rangarajapuram, West Mambalam and Choolaimedu from Valluvar Kottam and Anna Salai.

SPML with its partners are currently executing several road and bridge projects worth Rs. 1400 Crore for a total road length of 510.5 Kms in the state of Bihar, Madhya Pradesh, Rajasthan and Tamil Nadu.

projects awarded over the last few years remained slow primarily because of delays in land acquisition, clearances, and financial closure. The road developing companies are going through difficult times due to rising commodity prices (for fixed-price contracts) and idling of capacities as execution could not begin in many new projects. The awarding of projects under the public-private partnership (PPP) model, arranging funds for the execution after the financial closure is a daunting task. The EPC contractors have struggled to maintain their growth and many have chosen to enter the PPP space by undertaking projects on build-operate-transfer (BOT) basis.

With so many players coming into the business, competitive intensity in the road sector has increased. Earlier the large



construction companies were not bidding for road projects due to lower margins, many of these players have now started participating in road sector projects because of the slowdown in other segments. Almost 100 companies have pre-qualified for the NHAI projects making the sector highly competitive. Many of the projects awarded in past few months have received more than 10 bids with large variations and majority of these bids were significantly higher than NHAI's expectation. The road construction companies continued to face long working capital cycles, which put a strain on their liquidity position and increased their indebtedness.

SECTOR OUTLOOK

The Indian road sector has undergone major technological changes in the last few decades. In the earlier days, the only machine used for road construction was the road roller for compaction and all other works were done manually. During the 1960s, hot mix plants, earthmovers, pavers and other machines were imported and used. Due to lack of operational knowledge and service staffs, these machines most often failed to deliver the desired results. This was the beginning of Indian manufacturers to initiate development of road construction machinery and technology. During the 1970s, Indian road developers started to recognize the need for quality machinery and equipment. Indian manufacturers started producing road construction machinery and equipment like hot mix plants, paver finishers, and

other allied machinery in collaboration with international manufacturers. Along with the development of new machineries, the necessary training for their operations also started for the state PWDs personnel.

The 1990s saw the machines like wet mix plants, concrete paver finishers with placers and drum mix plant being used. In the late nineties, large road projects under the PPP mode were introduced and that followed the technological transformation in the road sector. A large number of technologically advanced machines were imported, which was faster and easier to build good quality road in the short span of time. The assistance from World Bank, Asian Development Bank and Japan also accelerated the growth of road sector that also led to modernization of road construction sector. These institutions stipulated that import of machinery and equipment for the projects would have to be free of import duty irrespective of their size and availability within the country. This requirement and a large number of projects awarded saw some companies started business of providing high performance and costly road construction machinery and equipment on rent to the developers thus enabling them to save on cost of purchasing

The need for better quality and technologically advanced construction machinery and equipment is now more evident than ever before given the size and complexity of the road projects, emphasis on quality and shortage of skilled manpower. ■

