Public Capital Expenditure and Employment in India: Pathways to Growth and Job Creation

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In 2025, India has emerged as the fastest growing major economy, with a projected growth rate of 6.3 percent, and is poised to soon become the third-largest economy in the world. However, for India's economic growth to translate into broader well-being, it must be accompanied by a rise in the availability of good quality jobs. According to UN projections, India's working-age population (15–59 years) will continue to grow until 2044. To meet this rising workforce demand, the Economic Survey 2023–24 estimates that nearly 78.5 lakh jobs need to be created annually in the non-farm sector until 2030.

In recognition of this, the Indian government has ramped up its capital expenditure (from hereon, capex) in recent years, with the goal of stimulating the economy and creating jobs. Capex refers to government spending on acquiring, maintaining, or improving long-term public assets like roads, bridges, transport, education, and healthcare. This is distinct from revenue expenditure, which covers operational costs like salaries, subsidies, and interest payments.

Trends in public capital expenditure

Capex, particularly infrastructure investment, has emerged as the cornerstone of India's economic strategy. In response to the pandemic-induced slowdown, India prioritised increased capex to develop physical and social infrastructure. As a result, effective capex[1] as a share of GDP has steadily risen—from 2.6 percent in 2019–20 to a projected 4.3 percent in 2025–26 (see Figure 1). In the current budget, the Union government's capital expenditure outlay stands at ₹11.2 lakh crore (B.E.), more than triple its 2019–20 level of ₹3.4 lakh crore (see Figure 2). Effective capex over the same period has increased from ₹5.2 lakh crore to ₹15.5 lakh crore (B.E.).

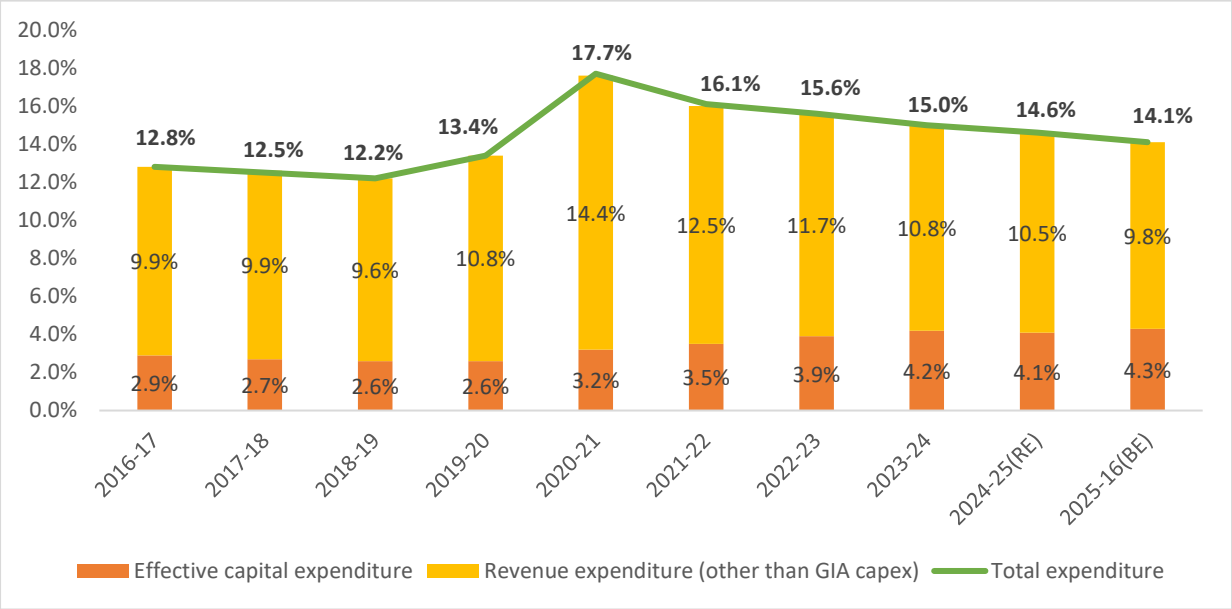
India's recent capex drive has led to a significant expansion of its infrastructural base. Today, India has the second largest road network and fourth largest rail network in the world, along with a rapidly growing aviation sector with over 150 operational airports (Business Today Magazine, 2024). Key schemes such as Bharatmala Pariyona, Pradhan Mantri Grameen Sadak Yojna (PMGSY), Sagarmala scheme and UDAN have helped advance highway, roads, ports and airport development respectively. Urban infrastructure has expanded via metro networks and smart city projects, while rural areas have benefited from increased access to electricity, gas, affordable housing, and tap water. The Smart Cities Mission, Pradhan Mantri Awas Yojna (rural and urban), AMRUT (Atal Mission for Rejuvenation and Urban Transformation) and Jal Jeevan Mission have all been instrumental in furthering these developments.

But for broad-based and holistic infrastructure development, there needs to be coordination between the different ministries and departments of the government. In this context, the *PM Gati Shakti scheme: National Master Plan for Multimodal Connectivity* was launched in 2021. The objective of the scheme was to promote integrated planning and coordinated

[1] Effective capex is the sum of capital expenditure and grants-in-aid for the creation of capital assets

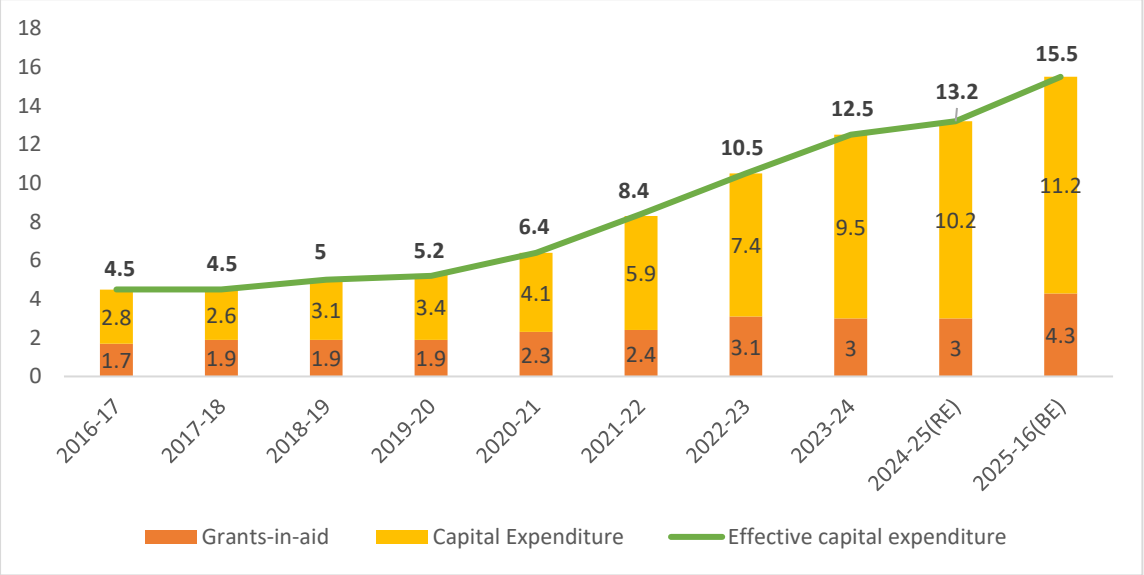
implementation of infrastructure across 16 ministries, including Railways and Roadways. Another major initiative is the *National Infrastructure Pipeline (NIP)*, launched for FY 2019–25 to attract private investment in large-scale projects (over ₹100 crore). Initially targeting ₹111 trillion, the NIP's outlay has since increased to ₹160 trillion, with a focus on five key sectors: roads, railways, renewable energy, affordable housing, and irrigation (ICRA, 2024).

Figure 1: Total Expenditure (% of GDP)



Source: Various budget documents; Budget at a glance (2025)

Figure 2: Trends in capital expenditure (in Rs lakh crores)



Source: Various budget documents; Budget at a glance (2025)

Impact of capital expenditure on output and employment

India's aggressive post-COVID capex push not only enabled recovery from recession but also helped close infrastructure gaps and set the foundation for sustainable growth. Amid

weak consumption and sluggish private investment, capex helped steer India onto a high growth trajectory of 8–9 percent immediately after the pandemic.

Generally, public expenditure has a multiplier effect on the economy, wherein an initial government expenditure can lead to a more than proportionate increase in output and employment. A study by Bose and Bhanumurthy (2015) which estimated the size of different kinds of fiscal multipliers in India, the multiplier for capex was found to be the highest at a value of 2.45[2], indicating that increasing capex is the most effective method for stimulating the economy. In the long run (i.e., for over a period of seven years), the cumulative value of the capex multiplier goes up to 4.8. In other words, a rupee of capex spent in the economy generated a multiplier of Rs. 2.4 in the immediate year, and a multiplier of Rs 4.8 in the following years.

While rising capex clearly boosts national income, it also holds strong potential for generating employment in both the short and long term. The ILO's Employment Impact Assessment methodology (2020) identifies three categories of short-term employment effects from infrastructure investment:

- *Direct employment:* Immediate effect of hiring workers for completing the project at hand. For instance, building a national highway requires workers, engineers, machine operators, and administrative staff.
- *Indirect employment*: Created in industries with forward and backward linkages. For building the highway, jobs would also be created in the industries producing the inputs such as cement, steel, and machinery.
- *Induced employment*: Arises from increased spending by directly and indirectly employed workers, boosting demand in retail, transport, and hospitality sectors.

A study by Nayak and Hazarika (2019) illustrates these effects through an evaluation of the *Pradhan Mantri Awas Yojana–Urban (PMAY-U)*. Using input-output analysis of two states (Uttarakhand and Tamil Nadu), the study found that PMAY-U had a significant impact on employment generation in the economy. It led to the creation of a total of 56.87 lakh jobs, with jobs being created not only directly in the construction of these houses, but also in the ancillary industries of cement, bricks, wood, clay and electronic equipment. There is a need to conduct such similar studies for the other flagship schemes of the Indian government, and assess their employment impact.

Additionally, in the long run, public capex leads to asset creation that enhances productivity and reduces transaction costs, improving the ease of doing business. This can crowd in private investment (Aschauer, 1989; Francois et al., 2024; Bose and Bhanumurthy, 2013), expand the private sector, and create more jobs. Improved transport and port infrastructure, for example, reduces supply chain inefficiencies and supports manufacturing and exports. Similarly, digital infrastructure investments fuel employment in IT services, startups, and the gig economy.

[2] The revenue expenditure multipliers are below unity, with the transfer payments multiplier (constitutes the effects of subsidies, pensions and other retirement benefits on output) having a value of 0.98 and the multiplier constructed on the "other" revenue expenditure components having a value of 0.99/

Sectoral Variation in Employment Impact

It is important to note that capex's impact on employment varies across sectors, especially in the short term. Not all sectors are equally labour-intensive. A study by Bhandari and Sahu (2025) identifies the largest employment-generating sectors with high employment intensity outside agriculture. These include construction, trade, land transport, education and research, and apparel manufacturing. This suggests that a unit of capex in construction generates significantly more jobs than the same rupee spent in a capital-intensive sector like communication equipment manufacturing—although the latter may yield long-term productivity gains. Hence, to maximise employment creation, especially in the short run, sector-specific analysis is vital for informed policymaking.

Conclusion

For India, where employment generation remains a critical policy objective, understanding the employment effects of public capex is crucial. Moreover, the employment impact of government spending may vary across sectors, depending on their respective labour intensities. India's vision of *Viksit Bharat@ 2047*, i.e. to become a developed country by the centenary of its independence, will not be achievable without the promotion of quality jobs and decent living standards for its broader population. In this context, it is important to examine the impact of capex on employment in India, assess its effectiveness for boosting employment across various sectors and develop suitable policy recommendations to enhance the employment intensity of public expenditure.

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