

Building Safe & Sustainable Infrastructure: Role of Steel

Prepared for National Conference on Steel in Infrastructure (New Delhi - 16 March'24)

EY Parthenon



Contents

1. India at 100 years of Independence
2. Thrust on Infrastructure: Growth Drivers
3. Steel : A Fundamental Ingredient in building India's Infrastructure
4. Steel for Infrastructure: Enablers to be a growth agent

How is the Outlook for India at 100 years of Independence

Vision India @ 100

01

India's GDP will be **US \$26 Trillion** in market exchange rate terms by FY'2048

02

India's per capita income would exceed **US \$15,000** by FY'2048

03

In the Medium Term, India would remain the **Fastest Growing Large Economy**

The Eight Accelerators



1

World's Technology & Services Hub



2

Digitalizing India



3

Filling the Credit Gap



4

Thrust on Infrastructure



5

Building the Start-up Ecosystem



6

Demographic Dividend and Large Consumer Market



7

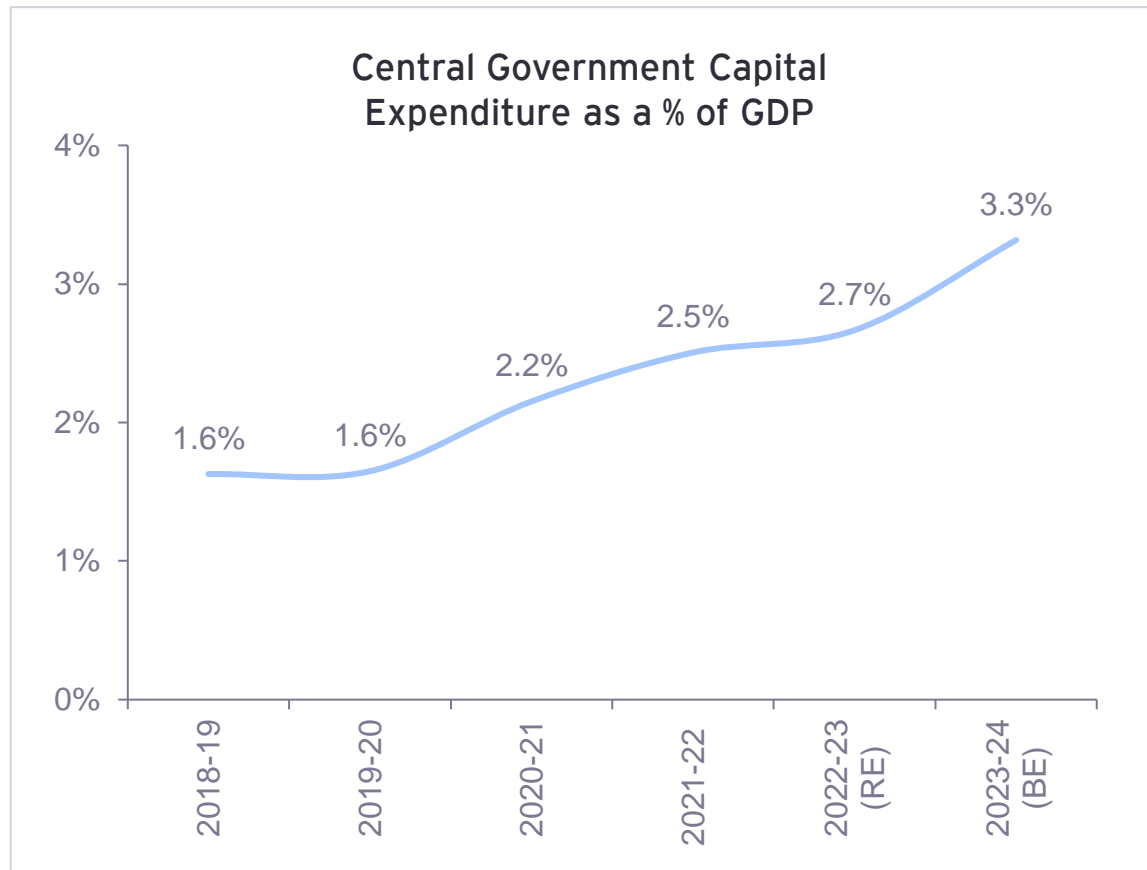
Thrust on Manufacturing



8

Transition to Sustainable Energy

Thrust on Infrastructure: Growth Drivers.....1/2



- ▶ Enhanced public spending especially for Railways and Roads will encourage higher private investments

01 National Infrastructure Pipeline (NIP)

- ▶ Focuses on seamless connectivity, prioritization of resources and timely creation of capacities
- ▶ Total investment opportunity of INR 111.4t (US\$1.4t) for 2019-20 to 2024-25

02 Gati Shakti

- ▶ Introduced for a period of 25 years as a supplement to NIP
- ▶ Aims to build a digital platform for integrated planning and coordination of 16 ministries
- ▶ Incorporates projects like Bharatmala, Sagarmala and UDAN

Incentives to attract private capital

- ▶ Tax incentives for sovereign wealth funds and pension funds
- ▶ Funding of developed infrastructure projects by InviTs through yield-based investment opportunities
- ▶ This was accompanied by the National Monetization Pipeline (NMP), a plan to monetize idle public assets for unlocking capital for deployment into new infrastructure projects

Benefits:

5x-6x more employment

Enhanced Competitiveness

Higher growth for MSMEs

Thrust on Infrastructure: Growth Drivers.....2/2

Drivers for growth in the infrastructure sector

- Urbanisation and Industrialisation
- Connecting the Rural and semi-urban corners
- Increase speed and ease of movement: 25-30 KMPH (50-60% Lower than in USA)
- Lower the cost of movement (Per Ton Per KM cost is twice that in USA); India's Logistics cost is 14-18% of GDP compared to global bests at 8% by 2030
- Decarbonisation in movement
- Boost the country's economy

Significant boost in all sub-sectors



Roads and highways

- 36.2% CAGR
- 10K+ KM in FY22
- BOT & HAM
- 27% in NMP



Railways

- Privatize assets
- 25% in NMP
- Sector progress slow



Urban Public Transport - Metro Rail

- 20 cities-860 KM in 2023
- Active PPP



Ports

- Active PPP
- PPP Terminal capacity to 85%
- Green H2 projects



Airports

- 400 M passengers by FY26
- Incentives for Private investments



Logistics Parks

- \$ 380 M in FY25
- 35 MMLPs under PPP
- Reduce cost from 15 to 9% of GDP by FY24

How can the growth be accelerated

- Remove bottlenecks and expedite execution of NIP projects (Bharatmala - 4 yrs delay; Sagarmala - delayed, 14-31 % completed projects)
- Adequate Policy coverage by GOI and State Governments to incentivise raw material production/ availability commitment to serve the segment
- Mitigating supply challenges to avoid disruptions
- Enhance Private participation

Steel : A Fundamental Ingredient in building India's Infrastructure.....1/2

Steel in Infrastructure- Overview

>161 MT

Steel Capacity in India (2024)

500 MT

Steel Capacity in India (2047)

**2nd Largest Consumer of Steel
(25%)**
in
Infrastructure Segment

11.11 Lac Crores
Budgetary Allocation
towards Infrastructure
(2024-25)

Steel: The material of choice

Strong

Durable

At 20%, Steel remains a
fundamental ingredient in
Infrastructural materials

Sustainable

Cost Effective

Impact of Infra growth on Steel sector

Compliance

- ESG
- Clearances
- Legal

Demand - Supply balance

- Set-up/
Operational delay
- Threat of import

Innovation and Efficiency

- Product/Process/
Technology
- Substitution

Eco-system integration

- Supply chain
alignment
- Closely-coupled

Steel Sector Challenges to be addressed

Energy usage: India's specific consumption of energy / tonne of steel produced is 1.5 giga calories more than international average

Logistics and infrastructure: NITI Aayog estimates a relative cost disadvantage for Indian steel makers at USD 20-25 per tonne of finished steel

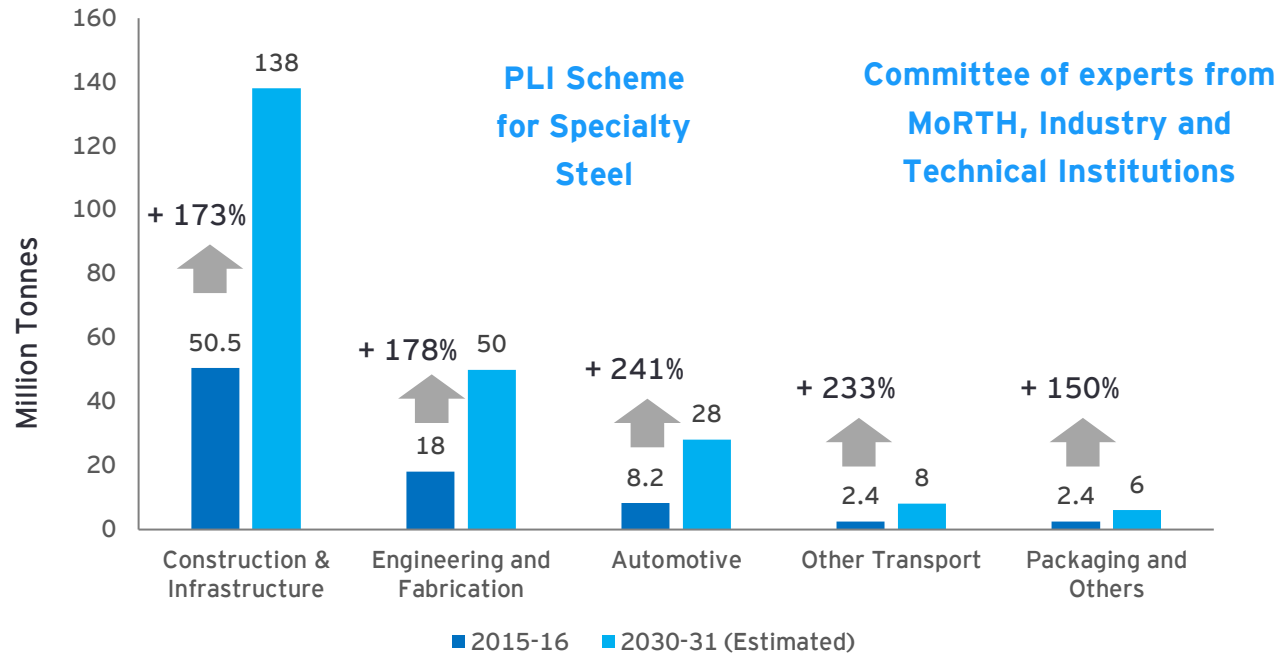
The challenge of shifting to cleaner process routes: The national steel policy envisages the production of 35-40% steel from scrap in the total of 300 million tons by 2025

Raw material challenges: Currently ~85% of the coking coal requirements are imported

Deferment of expansion: Top 5 Indian steel majors are delaying their expansion plan to add 40 million tonnes of steel producing capacity by 2026 as a direct impact of COVID 19

Steel : A Fundamental Ingredient in building India's Infrastructure.....2/2

Projected Steel Demand driven by Infrastructure



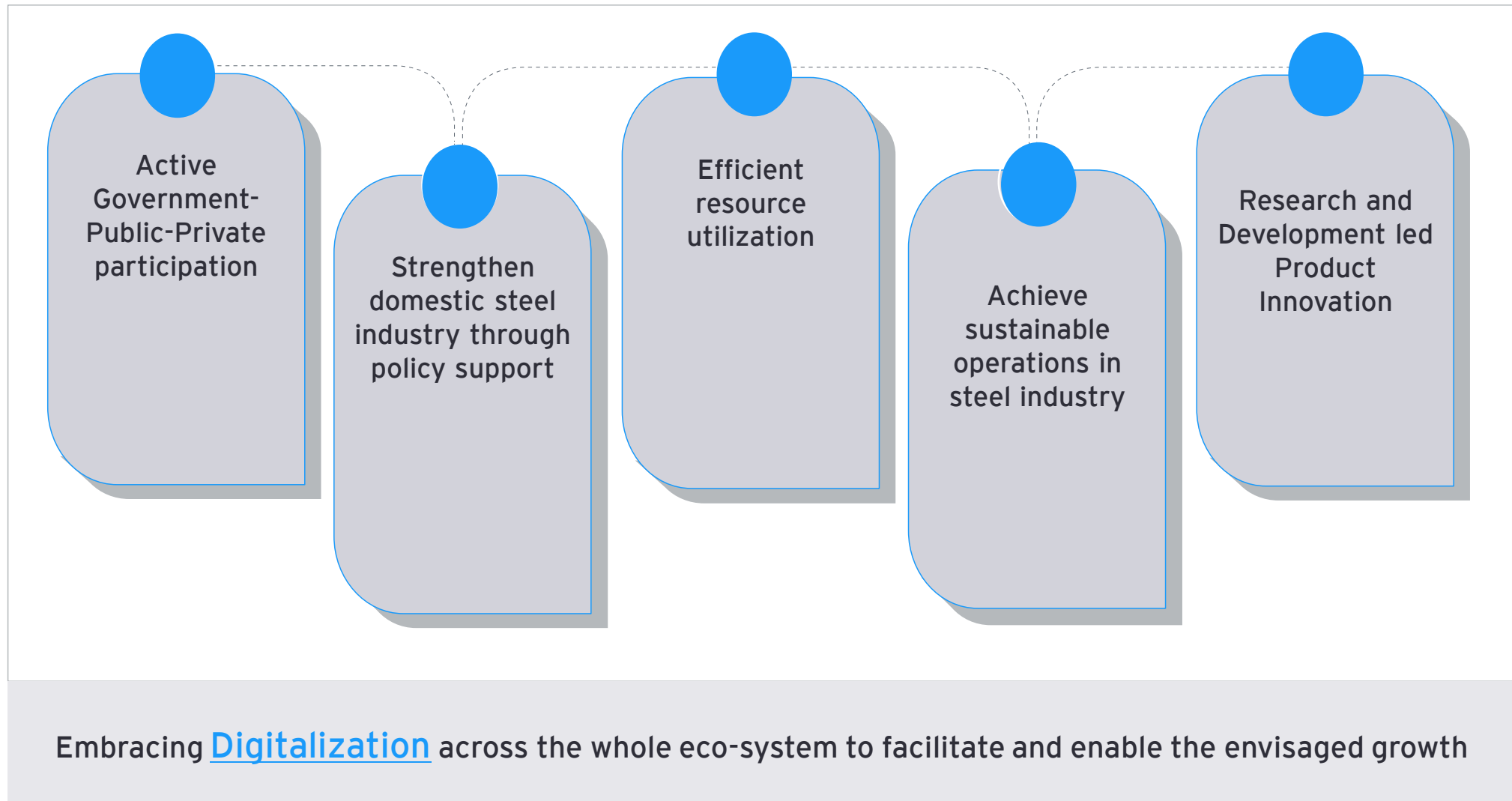
Drivers for Steel demand growth in Infrastructure

- 1 Increase in Public Infrastructure
- 2 Rural Development
- 3 Enhanced usage of Steel: UHCS, Structural Steel
- 4 New Products: Slag, SFRC, Pre-Fab
- 5 Technology advancements

Technology enablers

- 1 Green/ Sustainable Steel
- 2 Smart Steel Factory/ Operations
- 3 Customer Experience
- 4 New Product/ Process Engg. & Development
- 5 Resilient & adaptive E2E Supply Chain

Summary: Enablers for Steel industry to be a growth agent for the Infrastructure segment



Ernst & Young LLP

EY | Assurance | Tax | Strategy and Transactions | Consulting

About EY

EY is a global leader in assurance, tax, strategy, transaction and consulting services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. For more information about our organization, please visit ey.com.

Ernst & Young LLP is one of the Indian client serving member firms of EYGM Limited. For more information about our organization, please visit www.ey.com/en_in.

Ernst & Young LLP is a Limited Liability Partnership, registered under the Limited Liability Partnership Act, 2008 in India, having its registered office at 22 Camac Street, 3rd Floor, Block C, Kolkata - 700016

© 2022 Ernst & Young LLP. Published in India.
All Rights Reserved.

This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. Neither EYGM Limited nor any other member of the global Ernst & Young organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. On any specific matter, reference should be made to the appropriate advisor.

ey.com/en_in

[@EY_India](https://twitter.com/EY_India) [in](https://www.linkedin.com/company/ey) EY [YouTube](https://www.youtube.com/channel/UCv33333333333333333333) EY India [f](https://www.facebook.com/EYCareersIndia) EY Careers India [ig](https://www.instagram.com/ey_indiacareers) @ey_indiacareers