

# SUSTAINABLE DEVELOPMENT GOALS

## SDG 9: INDUSTRY INNOVATION AND INFRASTRUCTURE



# INTRODUCTION

- Investment in infrastructure and innovation are crucial drivers of economic growth and development. With over half the world population now living in cities, mass transport and renewable energy are becoming ever more important, as are the growth of new industries and information and communication technologies.
- Technological progress is also key to finding lasting solutions to both economic and environmental challenges, such as providing new jobs and promoting energy efficiency. Promoting sustainable industries, and investing in scientific research and innovation, are all important ways to facilitate sustainable development.
- More than 4 billion people still do not have access to the Internet, and 90 percent are from the developing world. Bridging this digital divide is crucial to ensure equal access to information and knowledge, as well as foster innovation and entrepreneurship.

# TARGET

- Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well being, with a focus on affordable and equitable access for all.
- Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries.
- Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets.
- By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

# INDIAN APPROACH

- India is implementing an unprecedented reform agenda to trigger manufacturing, spur industrialisation, promote investment and foster innovation.
- Major structural reforms; such as the implementation of Goods & Services Tax (GST), FDI regime liberalisation, Ease of Doing Business Reforms and introduction of the Insolvency and Bankruptcy Code, have been progressively made in the last few years.
- Focus on the digital revolution, internet penetration and financial inclusion are contributing to fueling growth and investment.
- Flagship programmes like Make in India, Startup India, Standup India, and Skill India have been playing an essential role in augmenting the collective growth impact.
- These reforms are fast creating a highly conducive ecosystem accelerating the growth of innovation, creativity, entrepreneurship and business within a fast-growing formal economy.

# ACTION TAKEN

- India has made commendable progress in the provision of basic infrastructure designed to spur growth. The construction of National Highways/roads increased from 4,410 km in 2014-15 to 10,824 km in 2018-19.<sup>62</sup> The 12 major ports have a cargo handling capacity of 1,477.22 million tonnes in 2018-19,<sup>63</sup> which has grown by 84 per cent from 801 million tonnes in 2014-15.<sup>64</sup>
- Recognising the importance of innovation and design, Government of India has laid significant emphasis on fostering innovation and strengthening design capabilities in the country. The National Institute of Design (NID) Act is amended to give four more NIDs status of institutes of National importance in addition to NID, Ahmedabad. This will pave the way for these new institutes to grant degrees to their students .

- Research & development should lead to a more significant generation of intellectual property rights which can be economically exploited. The process of recognising such IPRs must be streamlined and expedited. Government has strengthened the office of Controller General of Patents, Designs and Trade Marks (CGPDTM) by appointment of a large number of examiners and controllers.
- The Union Budget for 2019-20 announced INR 70,000 crores capital in public sector banks to boost credit growth in the economy. Measures such as asset monetisation, asset recycling and a continued focus on strategic disinvestment have been initiated to raise funds which will further boost infrastructure creation.

- Skilling is an essential component of India's plans to accelerate industrial growth. The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) enables the youth of the country to upskill themselves by gaining industry-relevant skills which will bridge the gap between the skills demanded by the industry and those offered by educational and training institutions.



70%

habitations are connected by  
all-weather roads

For every 100 persons



INTERNET  
SUBSCRIBERS



MOBILE  
CONNECTIONS



12.13%

of the labour force  
is employed in the  
manufacturing sector





# CHALLENGES

- Indian industry generates billions of tonnes of hazardous waste. A considerable share of the industry consumes large quantities of water, which results in high wastewater discharge. Significant increase in treatment and recycling capacities will contribute to addressing this challenge.
- India's spending on R&D in terms of percentage of GDP has been stagnant at 0.6 to 0.7 per cent in the last two decades, which is not up to that of the leading countries.

- India's Science, Technology, and Innovation Policy 2013 targets India becoming one of the top five scientific powers globally. Nuclear technology, nanotechnology, and technology-driven Green Revolution are some of the critical areas of high potential growth shortly. The sector, however, requires a stronger push in the Research & Development expenditure, which in India is limited mainly to the public sector.
- Further improvement in Ease of Doing business, a more favourable tax and incentive ecosystem, and large-scale skilling on industry-relevant areas will require commitment and coordinated action by not merely the Centre but all State and UT Governments.

# CONCLUSION

- India is far from achieving an upper hand on proper infrastructure.
- Not having enough resources to be able to conduct research in a more detailed manner sets us back instead of putting us forward.
- Having enough resources is a consequence of large funding, which is only given by top tier firms.
- Hence it is essential to have a planning team in place to be able to chalk out implementation and enforcement.