

Smart and Sustainable Infrastructure

What is the present condition of infrastructure?

\n\n

\n

- During 20th century, crippled infrastructure was a commonplace.

\n

- Now, a near 100% electrification has been achieved.

\n

- Similar developments occurred across other sectors, like highways, airports and ports.

\n

- Over the period, the government actively encouraged **public-private partnerships (PPPs)** tapping into the capital pool and efficiency of the private sector.

\n

\n\n

Is the attempt to bring in private successful?

\n\n

\n

- Nearly one-third of the \$450 billion investment in the 11th Plan period came from the private sector.

\n

- In the 12th Plan, half of the more than \$1 trillion investment is expected to have come from the private sector.

\n

- By taking over the government's obligations to the tune of \$500 billion, India Inc. has enabled the state to use such resources towards poverty alleviation programmes. This is apart from the 50 million jobs that the sector has created.

\n

\n\n

What are the challenges the infrastructure sector face?

\n\n

\n

- The challenges that the sector faces includes the **laws surrounding land acquisition**. Land records remain archaic, even establishment of ownership takes years of litigation.

\n

- The process consumes considerable time and energy on the part of developers, and often leads to **delays and overruns**. So, in order to improve the current situation, the government should give land issues topmost priority.

\n

- Financing and refinancing norms should be addressed on priority too to enable India Inc. to take up newer projects.

\n

- Other challenges, including **clearance delays**, have been addressed adequately by the government, and the time taken to obtain clearances has come down sharply in recent years.

\n

\n\n

What are the opportunities?

\n\n

\n

- Having made significant progress in the creation of basic physical infrastructure, now the approach should move towards smart and sustainable infrastructure.

\n

- Sustainability is expected to be key for new capacity addition in the power sector. Buoyed by the National Solar Mission, we can expect the solar-installed capacity to touch 100 GW. A similar push towards wind and mini-hydel plants is also expected.

\n

- In the power sector, we have reached a point where the deficit is well within the manageable limits. **The focus now has to shift to demand-side management**. Starting with the AT&C (aggregate technical and commercial) loss management, to monitoring household and other consumption.

\n

- There are a lot of opportunities in the application of smart grids that can integrate the entire spectrum—generation, transmission and distribution—to achieve optimum results.

\n

- The private sector is expected to take the lead in setting up mini-smart grids

in India. The 100 Smart Cities Mission is going to change municipal administration — be it for traffic, water or waste management.

\n

- Cutting-edge technology like the **Internet of Things** (IoT) finding application in solving complex real-life problems. The integration of physical infrastructure and virtual infrastructure presents interesting opportunities for the private sector.

\n

\n\n

\n\n

Source: Live Mint

\n

