

EXECUTIVE SUMMARY

Infrastructure is the backbone of development of any nation. A strong infrastructure is indispensable for the sustainable growth of a national economy. Traditionally major infrastructure sectors are power, roads, railways, ports, civil aviation and telecommunication in physical infrastructure area, while social infrastructure covers areas like literacy and education, water and sanitation, health, housing, and culture. The objective of the study is to assess the extent of innovation in different areas of infrastructure and its contribution to the nation's development. The study analyzes the measures taken by concerned agencies to enhance the innovativeness of the infrastructure sectors. It is also to give suggestions to improve on the same.

Progress made in each of the sectors under physical and social infrastructure has been discussed with statistics. At many occasions, comparison has been made for different aspects of infrastructure in India with those of comparable economies as well as advanced economies. Various innovative measures taken in each of the physical and social infrastructure sectors have been discussed in the report. In power sector, the use of flexible AC transmission system, gas insulated substations, shunt capacitors, and the application of wind power, ocean energy and solar thermal power have been mentioned. Besides highlighting the golden quadrilateral project and north-south/east-west corridors projects, the innovative measures like new road construction technology, indigenous manufacture of modern road construction equipment, low-cost drainage system, mass rapid transit system, advanced traffic management system, geo-synthetic pavement reinforcing fabrics and use of CNG and other fuels have been discussed. In railways, use of integrated management information system, auxiliary warning system, compact brake units, anti-collision devices and telemedicine facilities have been highlighted. Some of the innovations in aviation sector include new air traffic control system, airborne collision avoidance system, global positioning system, improved communication-navigational-surveillance system, satellite communication linking of airports and sophisticated runway lead-in-lighting system. Private sector ports, the Sagarmala project and acquisition of coastal research vessels viz. M. V. Sagar Purvi

and M. V. Sagar Paschimi are some of the developments in the ports and shipping sector. Out of all infrastructure sectors, innovations in the telecommunication sector are the maximum. Introduction of different value-added services, global mobile personal communications by satellite, use of optical fibre and optical repeaters, switching and transmissions products, modems, intelligent network are some of the advances in telecommunication sector. There are substantial improvements in postal services also. The need to improve various social sectors has been emphasized. It has been mentioned that the single most important factor to accelerate the growth of Indian economy is to attach high priority on social infrastructure to improve on the quality of life of the people. Various innovative measures relating to literacy, water and sanitation, health, housing, and culture have been mentioned in the project. References have been made at different places regarding the need of increased participation of private sector for infrastructure projects.

After giving the suggestions to improve on the infrastructure sectors, limitations of the study and the scope of the future work have been given. The report ends with a bibliography.