Industrial, Corporate, and Infrastructure Performance

06

CHAPTER

The earlier perception about slow industrial growth during the last three years is at variance with the latest gross domestic product estimates, based on a new methodology and with 2011-12 as base year. The latter indicates an industrial recovery lead by mining and manufacturing However, in the current year, credit growth, corporate performance, and the Index of Industrial Production continue to point towards slow industrial growth. Infrastructure growth in terms of eight core industries has been higher than industrial growth since 2011-12 and this trend is expected to continue. A number of macro level and sectoral initiatives undertaken to improve industrial growth are expected to yield results over time.

6.2 As per recently released data on national accounts, with 2011-12 as base year, industrial growth in 2012-13 and 2013-14 at 2.4 per cent and 4.5 per cent is much better than the growth rates taking 2004-05 as the base year. Further, the 1.4 per cent growth in gross capital formation (GCF) in industry in 2013-14 implies that recovery in industrial growth commenced last year. In contrast, the Index of Industrial Production (IIP) suggests that the industrial sector is recovering slowly with a 2.1 per cent growth in April-December 2014-15 over the 0.1 per cent increase in the same period last year. The recovery is led by the infrastructure sectors, viz. electricity, coal, and cement. Mining sector growth has turned positive while manufacturing growth continues to remain tepid. In terms of use based classification, basic and capital goods appear to be on the path of recovery, intermediate goods are yet to emerge out of difficulties, and consumer goods led by consumer durables continues to experience negative growth.

6.3 Corporate sector performance of listed manufacturing companies in the private sector in terms of growth of sales and net profit appeared to turn around in Q1 of 2014-15. However, performance in Q2 of 2014-15 has dampened the expectations of sustained improvement. There is no discernible improvement in capacity utilization in the first two quarters of 2014-15, as per the twenty-seventh round of the Reserve Bank of India's (RBI's) Order Books, Inventories and Capacity Utilisation Survey.

6.4 A new regime with a fresh mind-set has been in repair damage mode for instilling confidence among the business community and boosting industrial growth. Box 6.1 lists some of the initiatives of the new government in the industrial sector. The emphasis has been on rapidly improving ease of doing business and launching fresh initiatives like Make in India and Digital India, creating a National Industrial Corridors Authority, streamlining environment and forest clearances and labour reforms. To overcome critical constraints holding up use of land and natural resources, action has been taken to remove regulatory uncertainty by passing ordinances to streamline land acquisition, e-auction of coal blocks for private

Box 6.1 : Recent initiatives to boost industrial growth

1. **Ease of Doing Business:** To improve India`s low Ease of Doing Business Index ranking, reforms are being undertaken in areas such as starting a business, dealing with construction permits, registration of property, power supply, paying taxes, enforcing contracts, and resolving insolvency. The important measures that have been undertaken are liberalization of licensing and deregulation of a large number of defence products, extending the validity of licencses to provide enough time to licencees to procure land and obtain the necessary clearances/ approvals from authorities, adoption of a checklist with specific time-lines for processing all applications filed by foreign investors in cases relating to retail/non-resident Indian (NRI)/export-oriented unit (EoU) foreign investments, automation of processes for registration with the Employees Provident Fund Organization and Employees State Insurance Corporation, processing of environment and forest clearances online, reducing the number of documents for exports, adoption of best practices by states in granting clearances and ensuring compliance through peer evaluation, self-certification, etc.
2. **Make in India:** The Make in India programme is aimed to facilitate investment, foster innovation, enhance skill development, protect intellectual property, and build best-in-class manufacturing infrastructure. Information on twenty-five sectors has been provided on a web portal along with details of FDI policy, National Manufacturing Policy, intellectual property rights, and the Delhi-Mumbai Industrial Corridor and other National Industrial Corridors. An Investor Facilitation Cell has been created in 'Invest India' to guide, assist, and handhold investors
3. **E-Biz Project:** Under the project a Government to Business (G2B) portal is being set up to serve as a one-stop shop for delivery of services to the investors and address the needs of the business and industry from inception through the entire life cycle of the business. The process of applying for industrial licence (IL) and industrial entrepreneur memorandum (IEM) has been made online and this service is now available to entrepreneur on 24x7 basis at the E-Biz website. Other services of the central government are being integrated on top priority.
4. **Skill development:** After the setting up of a new Ministry of Skill Development and Entrepreneurship to promote skill and entrepreneurial activities, work is being undertaken on setting up common norms for skill training across central ministries/ departments. Thirty- one industry/employer-led Sector Skill Councils (SSCs) are now operational and these have been aligned with the twenty-five sectors of 'Make in India'. To create a common standard for skills training and certification in the country efforts are on to align the National Council for Vocational Training (NCVT), school boards, and the University Grants Commission (UGC).
5. **Streamlining environment and forest clearances:** A process for online submission of applications for environment, coastal regulation zone (CRZ), and forest clearances has been started. The decision- making process has been decentralized by strengthening federalism. To ensure industrial and education growth, the requirement of environment clearance has been done away with for projects for construction of industrial sheds which house plant and machinery, educational institutions and hostels.
6. **Labour- sector reforms :** A Shram Suvidha portal has been launched for online registration of units, filing of self-certified, simplified, single online return by units, introduction of a transparent labour inspection scheme via computerized system as per risk-based criteria, uploading of inspection reports within seventy-two hours and timely redressal of grievances. A Universal Account Number has been launched facilitating portable, hassle-free, and universally accessible Provident Fund accounts for employees. The Apprentices Act, 1961 has been amended so as to make it flexible and attractive to youth and industry and an Apprentice Protsahan Yojana to support micro small and medium enterprises (MSME) in the manufacturing sector in engaging apprentices has been launched.

companies, and auction of iron ore and other new coal mines.

6.5 In infrastructure, the focus has been on resolving long-pending issues like pricing of gas, establishing processes and procedures for transparent auction of coal and minerals, and improving power generation and distribution. In railways, there have been several policy announcements such as 100 per cent foreign direct investment (FDI) to build a variety of rail infrastructure and new initiatives like bullet/semi-high speed trains and modernization of stations and timely completion of major projects like Dedicated Freight Corridors being monitored closely. In the road sector efforts have been undertaken to resolve problems associated with projects which are yet to be completed and the National Highways and Infrastructure Development Corporation Ltd. has been set up for speedy implementation of highway projects in the north-east.

IIP-based Industrial Performance

6.6 The IIP provides quick estimates on the performance of key industrial sectors ignoring seasonal adjustment. As per the IIP, industrial production which had slowed down to 2.5 per cent in 2008-09, improved in the next two years to reach 8.2 per cent in 2010-11, declined for the next three years successively, to reverse the trend in 2014-15. The main reasons for the declining industrial growth are high interest rates to tackle persistent inflation, slowdown in investment, and loss of business confidence.

6.7 During April-December 2014-15, industrial production attained a growth of 2.1 per cent owing mainly to recovery in the mining sector and impressive growth in the electricity sector (Table 6.1). The manufacturing sector continues to remain tepid, registering growth of 1.2 per cent in April-December 2014-15.The low growth in manufacturing is mainly due to high rate of interest, infrastructure bottlenecks, and low domestic and external demand.

6.8 In terms of use based classification, basic goods and capital goods have witnessed marked improvement in performance registering growth rates of 6.9 per cent and 4.8 per cent , intermediate goods have grown by 1.7 per cent, while consumer goods have declined by 4.9 per cent during April-December 2014-15 as compared to the same period in 2013-14. The decline in growth of consumer goods is accentuated by the (-)15.2 per cent growth in consumer durables.

Industrial-sector performance based on revised GDP estimates

6.9 The recently released new series of national accounts, revising the base year from 2004-05 to 2011-12 and applying changed methodology, whose details are not yet available, gives considerably improved estimates of growth in the industrial sector in 2012-13 and 2013-14 as compared to those based on the 2004-05 series (Table 6.2). This is mainly due to much better performance in the mining and manufacturing sectors as per the new series. In 2013-14, manufacturing sector growth is estimated at 5.3 per cent as compared to the (-) 0.7 per cent estimated under the 2004-05 series. The Advance Estimates (AE) for the year 2014-15 show industrial growth of 5.9 per cent as per 2011-12 base year. The manufacturing, electricity, and construction sectors have grown

Table 6.1 : Index of Industrial Production-Growth rates (per cent)

	Weight	2012-13	2013-14	2013-14				2014-15			
				Q1	Q2	Q3	Apr.-Dec.	Q1	Q2	Q3	Apr.-Dec.
General	100.00	1.1	-0.1	-1.0	1.9	-0.8	0.1	4.5	1.3	0.5	2.1
Sectoral											
Mining	14.16	-2.3	-0.6	-4.7	-0.2	0.5	-1.5	3.0	0.5	1.7	1.7
Manufacturing	75.53	1.3	-0.8	-1.1	1.4	-1.6	-0.4	3.9	0.4	-0.8	1.2
Electricity	10.32	4.0	6.1	3.5	8.4	5.0	5.6	11.3	9.4	9.3	10.0
Use based											
Basic goods	45.68	2.5	2.1	-0.2	2.8	1.8	1.5	8.7	7.0	5.1	6.9
Capital goods	8.83	-6.0	-3.6	-3.7	2.2	0.0	-0.4	13.6	-0.5	2.5	4.8
Intermediate goods	15.69	1.6	3.1	1.6	3.8	3.9	3.1	3.1	1.6	0.3	1.7
Consumer goods	29.81	2.4	-2.8	-2.1	-0.2	-6.1	-2.9	-3.2	-5.4	-6.4	-4.9
Consumer durables	8.46	2.0	2.8	-12.7	-9.5	-16.5	-12.9	-9.5	-15.5	-20.9	-15.2
Consumer non-durables	21.35	-12.2	4.8	7.1	8.2	2.3	5.8	1.4	2.3	3.1	2.2

Source **: Central Statistics Office (CSO).**

Table 6.2 : Changes in Growth in Industry at constant prices (per cent)

	Item	2012-13		2013-14		2014-15 (AE)	
		2004-05 Series	2011-12 Series	2004-05 Series	2011-12 Series	2004-05 Series	2011-12 Series
i	Mining and quarrying	-2.2	-0.2	-1.4	5.4	NA	2.3
ii	Manufacturing	1.1	6.2	-0.7	5.3	NA	6.8
iii	Electricity, gas etc.	2.3	4.0	5.9	4.8	NA	9.6
iv	Construction	1.1	-4.3	1.6	2.5	NA	4.5
	Industry	**1.0**	**2.4**	**0.4**	**4.5**	**NA**	**5.9**

Source **: CSO.**

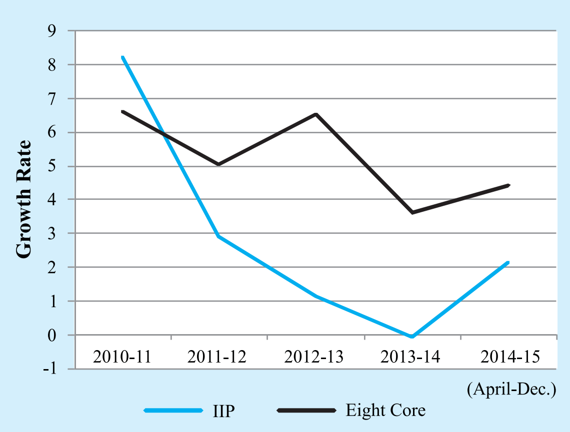
Note **: NA : Not Available**

remarkably while growth in the mining sector has declined as compared to 2013-14. The improved performance in manufacturing is attributed to the change in methodology and use of new data sources. The growth in electricity, gas, and water supply and construction shows marked improvement in 2014-15 as compared to the previous two years.

Performance of Eight Core Industries

6.10 A monthly index of eight core industries, viz. coal, fertilizer, electricity, crude oil, natural gas, refinery product, steel, and cement, comprising 38 per cent of the weight of items in the IIP, is released to gauge the impact on overall economic activity. A comparison between the annual average growth rate in the eight core industries and the IIP (Figure 6.1) shows that since 2011-12 the higher annual growth of the eight core industries than of the IIP, implies slowdown in the growth of consumer goods.

Figure 6.1: Growth of IIP & Eight Core Industries



Source**: CSO and Economic Adviser, Department of Industrial Policy and Promotion (DIPP).**

6.11 The overall growth in eight core industries during April-December 2014-15 has improved marginally to 4.4 per cent compared to 4.1 per cent in the same period last year. Electricity (9.7 per cent), coal (9.1 per cent), and cement (7.9 per cent) boosted the performance, while natural gas (-5.1 per cent), fertilizers (-1.4 per cent), crude oil (-0.9 per cent), refinery products (0.2 per cent), and steel (1.6 per cent) accounted for moderation in growth. The improved performance in electricity is due to high growth in thermal generation; in coal mining to higher production by Coal India Ltd. and captive mining; and in cement to capacity addition. Natural gas and crude oil production have declined because of no major discoveries and problems with old oilfields. Domestic steel production is affected by slowdown in domestic demand and cheaper imports. Fertilizer production has contracted mainly because of non-availability of gas and no significant capacity addition in the past few years.

Comparative Position of India and World Manufacturing

6.12 India accounts for 1.8 per cent of the world's manufacturing output. World manufacturing growth was 3.4 per cent in the first quarter and 3.0 per cent in the second quarter of 2014-15, according to the United Nations Industrial Development Organization's (UNIDO) Quarterly Report on World Manufacturing Production. Growth rates in manufacturing are uniformly low worldwide because industrialized economies are experiencing slow growth and emerging economies are finding it difficult to sustain growth as they are facing low demand in the global market and in their domestic economies. The main items which have boosted world manufacturing output are tobacco products, other transport equipment, basic metals, radio, TV and communication equipment, and machinery and equipment.

6.13 India's manufacturing output has increased by 3.9 per cent in the first quarter and 0.4 per cent in the second quarter. The items which have shown high positive growth in 2014-15 (April-December) are electrical machinery and apparatus and basic metals. These have shown positive growth in world manufacturing sector as well. However, in India items like radio, TV and communication equipment and apparatus, and office, accounting, and computing machinery have registered high negative growth whereas in the rest of the world these items have shown positive growth. India needs to be part of the global manufacturing chain to partake of the benefits of growth in these items and the electronics industry needs to be incentivized to set up domestic production facilities.

Corporate-sector Performance

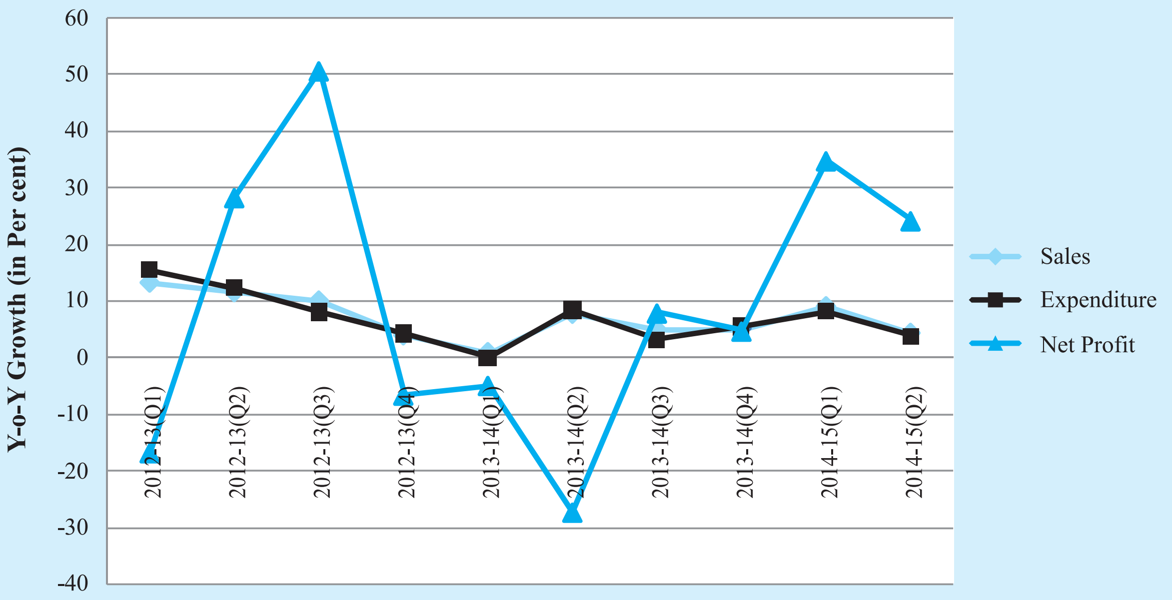
6.14 The corporate sector performance of listed manufacturing companies in the private sector in terms of growth of sales and net profit appeared to turn around in Q1 of 2014-15 (Figure 6.2). However, the performance in Q2 of 2014-15 dampened the expectations of sustained improvement. Year-on-year (Y-o-Y) sales growth declined successively from quarter to quarter from 13.1 per cent in Q1 of 2012-13 to 0.8 per cent in Q1 of 2013-14 and then moderated to around 5.0 per cent in the last two quarters of 2013-14. Sales recorded growth of 8.9 per cent and 4.2 per cent respectively in Q1and Q2 of 2014-15. Similarly, expenditure growth for the manufacturing sector declined successively from Q1 of 2012-13 till Q1 of 2013-14, and then fluctuated till Q2 of 2014-15, when it stood at 3.8 per cent after declining from 8.2 per cent in Q1 of 2014-15. Net profit growth rose sharply from 4.6 per cent in Q4 of 2013-14 to 34.7 per cent in Q1 of 2014-15 and stood at 24.1 per cent in Q2 of 2014-15. For manufacturing companies in the private sector, although growth in sales has been stagnant for the last two years, net profit has started rising from the last quarter of 2013-14, showing improved efficiency of the companies, which is a positive sign for growth of the manufacturing sector in India

6.15 Capacity utilization, as measured by the twenty-seventh round of the Order Books, Inventories and Capacity Utilisation Survey (OBICUS) of the RBI, registered an increase in Q2 of 2014-15 over the previous quarter although it was lower than its level in the previous year. The (Y-o-Y) growth in new orders decelerated from 12.0 per cent in Q1 of 2014-15 to 5.6 per cent in Q2 of 2014-15. The finished goods inventory to sales ratio at 18.0 per cent in Q2 of 2014-15 was similar to the previous quarter but down from its level in the previous year. The raw material inventory to sales ratio declined in Q2 of 2014-15 on both quarter-on-quarter (Q-o-Q) and Y-o-Y basis.

GCF in the Industrial Sector

6.16 As per the latest data available on national income, consumption expenditure, and capital formation at constant 2011-12 prices, the rate of growth of GCF has declined from 37.2 per cent in 2012-13 to 33.4 per cent in 2013-14. The rate

Figure 6.2: Growth in sales, expenditure and net profit of listed Manufacturing Companies in the Private Sector



Source **: RBI**

of growth of GCF in industry has improved from a (-) 0.7 per cent in 2012-13 to 1.4 per cent in 2013-14, implying slight uptick in investment in industry (Table 6.3). The sector-wise share in overall GCF over the period 2011-12 to 2013-14 shows that the shares of mining and electricity have gone up gradually, the share of manufacturing has remained unchanged, and the share of the construction sector has declined.

Table 6.3 : Gross Capital Formation (GCF) by Industry of use at constant prices (2011-12) (in per cent)

	2011-12	2012-13	2013-14
Rate of growth of GCF in industry		-0.7	1.4
Sector-wise share in overall GCF			
i. Mining	2.1	2.4	3.1
ii. Manufacturing	19.7	21.0	19.6
iii. Electricity	9.0	9.8	10.2
iv. Construction	6.5	5.8	5.5

Source **: CSO**

Credit Flow to the Industrial Sector

6.17 Except the mining sector, all other major industrial sectors have experienced slowdown in growth of credit in 2014-15 as compared to 2013-14 (Table 6.4). Growth of credit flow to the manufacturing sector at 13.3 per cent in 2014-15 is lower than the growth of 25.4 per cent in 2013-14, reflecting the tepid growth in the sector. Chemicals, food processing, and textiles have seen a sharp decline in growth of credit in 2014-15. In 2014-15, there is 13.3 credit growth in micro and small industries and 0.7 per cent and 6.1 per cent growth in medium-scale and large-scale industries respectively.

MSME Sector

6.18 The 3.61 crore (MSMEs), contributing 37.5 per cent of the country's GDP, have a critical role in boosting industrial growth and ensuring the success of the Make in India programme. A number of schemes are being implemented for the establishment of new MSMEs and growth and

Table 6.4 : Growth of Credit to Industry by Scheduled Commercial Banks (in per cent)

Sectors	2013-14*	2014-15**
Industries	14.1	6.8
Manufacturing	25.4	13.3
Mining	1.2	3.5
Manufacturing sub-sectors		
Food processing	31.0	12.1
Textiles	14.0	3.1
Petroleum & nuclear fuel	-3.1	-7.4
Cement & cement products	18.6	5.6
Chemicals & chemical products	19.6	-8.9
Basic metal & metal products	15.1	7.3
All engineering	16.3	6.5
Transport equipment	15.6	5.0
Other Industries	-2.5	-3.1

***Source*: RBI.**

***Note* : * End - December. 2013 over end -December 2012 .**
**** End-December 2014 over end December 2013.**

development of existing ones. These include: (a) the Prime Minister's Employment Generation Programme, (b) Micro and Small Enterprises-Cluster Development Programme , (c) Credit Guarantee Fund Scheme for Micro and Small Enterprises, (d) Performance and Credit Rating Scheme, (e) Assistance to Training Institutions, and (f) Scheme of Fund for Regeneration of Traditional Industries.

Central Public-Sector Enterprises

6.19 Central Public Sector Enterprises (CPSEs), spanning industries and infrastructure, continue to play a key role in the development of the economy. A total of 290 CPSEs existed under the administrative control of various ministries/ departments as on 31 March 2014. Of these, 234 were operational and 56 under construction. Financial investment (paid-up capital + long-term loans) in all the CPSEs stood at ₹ 9,92,971 crore as on 31 March 2014 showing an increase of 17.46 per cent over 2012-13. In 2013-14, net profit of the 163 profit-making CPSEs was ₹ 1,49,164 crore and net loss of the 71 loss-making CPSEs was ₹ 20,055 crore. The Oil and Natural Gas Corporation (ONGC) Ltd, Coal India Ltd, National Thermal Power Corporation (NTPC) Ltd, Indian Oil Corporation Ltd . and National Mineral Development Corporation (NMDC) Ltd. were the top five profit-making CPSEs during 2013-14. Bharat Sanchar Nigam Ltd (BSNL), Air India Ltd, Hindustan Photofilms Manufacturing Co. Ltd., Hindustan Cables Ltd., and State Trading Corporation of India Ltd. were the top five loss-making CPSEs in 2013-14. The contribution of CPSEs to the central exchequer by way of divided payment, interest on government loans, and payment of taxes and duties increased from ₹ 1,63,207 crore in 2012-13 to ₹ 2,20,161 crore in 2013-14. This was primarily due to increase in contribution towards dividend payment, excise duty, customs duty, corporate tax, and dividend tax.

FDI

6.20 An investor-friendly FDI policy has been put in place, whereby FDI up to 100 per cent is permitted under the automatic route in most sectors/activities. In 2014, FDI policy has been further liberalized. FDI up to 49 per cent through the government route has been permitted in the defence industry. Higher FDI has also been allowed on a case-to-case basis. FDI up to 100 per cent through the automatic route has been permitted in construction, operation, and maintenance of identified railway transport infrastructure. Norms related to minimum land area, capitalization, and repatriation of funds for FDI in construction development projects have been further liberalized.

6.21 During April-November 2014-15, total FDI inflows (including equity inflows, reinvested earnings, and other capital) were US$ 27.4 billion, while FDI equity inflows were US$ 18.9 billion. Cumulative FDI inflows from April 2000 to November 2014 were US$ 350.9 billion. Services, construction, telecommunications, computer software and hardware, drugs and pharmaceuticals, the automobile industry, chemicals, and power have attracted a proportionately high share of total inflows.

Infrastructure Performance: Specific Sectors

Power

6.22 To provide 24x7 power across the country by 2019, several decisions have been taken for increasing power generation, strengthening of transmission and distribution, separation of feeder and metering of power to consumers. The Electricity (Amendment) Bill 2014 has been introduced in the Lok Sabha to usher in reforms in the power sector, promote competition and efficiency in operation, and improve the quality of supply of electricity.

Generation

6.23 With a target of 765.39 billion units (BU) and achievement of 793.73 BU, electricity generation by power utilities has exceeded the target for April-December, 2014. Led by double-digit growth in thermal sector, a 9.9 per cent growth was achieved in power generation during April-December 2014-15 (Table 6.5). The negative growth in hydro generation in 2014-15 is mainly due to poor monsoon.

6.24 In April-December, 2014-15, in the thermal category, growth in generation from coal, lignite, and gas-based stations was of the order of 14.41per cent , 9.64 per cent, and (-) 3.89 per cent respectively. The overall plant load factor (PLF), a measure of efficiency of thermal power stations, was 65.09 per cent during April-December 2014 as compared to 64.57 per cent during April-December 2013.

Capacity addition

6.25 The capacity-addition target during the Twelfth Plan period is 88,537 MW comprising 26,182 MW in the central sector, 15,530 MW in the state sector, and 46,825 MW in private sector. As against the capacity-addition target of 17,830.3 MW in 2014-15, 11,610.41 MW (including 1,000MW nuclear capacity commissioned) has been added till 31December 2014. The cumulative capacity addition as on 31 December 2014, is 50,058.22 MW, which constitutes 56.5 per cent of the Twelfth Plan target. The individual targets achieved by the central, state, and private sectors are 39.2 per cent, 64.5 per cent, and 63.6 per cent, respectively.

Distribution

6.26 To reduce aggregate technical and commercial (AT & C) losses, establish IT-enabled energy accounting/auditing, and improve collective efficiency, a new scheme, the 'Integrated Power Development Scheme (IPDS)' which subsumes the Restructured Accelerated Power Development and Reforms Programme (R-APDRP), has been launched. The outlay for the IPDS is ₹ 32,612 crore. Its key features are strengthening of the sub-transmission and distribution network in urban areas, metering of distribution /feeders/ transformers /consumers in urban areas and roof top solar panels.

Table 6.5 : Power Generation by Utilities (billion units)

Category	April-March			April-December		
	2012-13	2013-14	Growth (per cent)	2013-14	2014-15	Growth (per cent)
Power generation	912.06	967.15	6.04	722.11	793.73	9.91
Hydroelectric#	113.72	134.85	18.58	110.76	106.73	-3.64
Thermal	760.68	792.48	4.18	580.81	657.06	13.13
Nuclear	32.87	34.27	4.14	25.11	25.04	-0.28
Bhutan Import	4.80	5.60	16.75	5.44	4.90	-9.91

Source **: Ministry of Power.**

Note **: # includes generation from hydro stations above 25 MW.**

6.27 A new scheme, the 'Deendayal Upadhyaya Gram Jyoti Yojana' (DDUGJY), has been launched with the objectives of: (a) separating agriculture and non-agriculture feeders to facilitate distribution companies (discoms) in the judicious rostering of supply to agricultural and non-agricultural consumers; (b) strengthening and augmentation of sub-transmission and distribution infrastructure in rural areas; and (c) metering in rural areas. The existing 'Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)' is subsumed under the DDUGJY. Under the new scheme all discoms including private sector discoms are eligible for availing of financial support.

Petroleum and Natural Gas

Production

6.28 Domestic annual production of crude oil has been stagnant at around 38 million tonnes in the last four years. During April-December 2014-15, domestic production of crude oil was 28.171 MMT which is close to the 28.423 MMT produced during the same period last year. Production was affected due to operational problems in RJ-ON-90/1, GAIL pipeline fire accident in Andhra Pradesh, and prolonged bandhs and blockages in Assam.

6.29 Gas production during April-December 2014-15 was 25.320 BCM against 26.698 BCM during the corresponding period of 2013-14, showing a decline of 5.1 per cent. The decline in natural gas production is due to lower production in Bassein and satellite fields, under performance of six newly drilled wells in M&S Tapti, seizure of one well in KG-D6, and closure of non-associated gas wells on account of the GAIL pipeline accident.

6.30 Domestic production is supplemented by oil and gas assets acquired by Indian companies abroad. During April -December 2014-15, production of crude oil and natural gas from assets abroad was 4.135 MMT and 2.417 BCM, respectively. Box 6.2 lists some of the initiatives for enhancing crude oil and natural gas production.

Box 6.2 : Recent Policy Initiatives for enhancing Crude Oil and Natural Gas production

- **New Gas Pricing Formula:** The Government approved the New Gas Pricing formula on 18 October, 2014 and released New Gas Pricing Guidelines, 2014. The increase in price of domestically produced natural gas strikes a fine balance between the expectations of investors and interests of consumers.
- **Reforms in Production-Sharing Contracts to push Investment in Exploration:** The government has ironed out a number of rigidities in production- sharing contracts to instil confidence among investors and ensure that work, which was stuck in a number of blocks, takes off in right earnest and without further delay.
- **Reassessment of Hydrocarbon Potential:** An elaborate plan has been rolled out to reassess hydrocarbon resources in India's sedimentary basins which will provide greater clarity to future investors on the prospects of the basins.
- **Project for Survey of Un-appraised Sedimentary Basins of India:** A project has been undertaken to appraise about 1.5 million sq. km area in twenty-four sedimentary basins where scanty geo-scientific data is available. Data generated under the project shall be stored, maintained, validated in a National Data Repository (NDR) which is being set up in the Directorate General of Hydrocarbons (DGH).
- **Data Acquisition through Non Exclusive Multi-Client Model:** A policy for acquisition of geo-scientific data through a non-exclusive multi-client model is being implemented. This model replaces the earlier fiscal term of profit sharing after cost recovery with the payment of a one- time project fee.
- **Level Playing Field for Gas operations in the North East Region:** For incentivizing exploration and production in the North East region, a 40 per cent subsidy on gas operations has been extended to private companies operating in the region.
- **Gas Grid Infrastructure:** In addition to the existing 15,000 km gas pipeline network, another 15,000 km has been planned for completion of the gas grid.

Refining capacity

6.31 India is a major player in global refining. Its refining capacity was 215.066 million metric tonne per annum (MMTPA) as on 1 April 2014. Crude throughput during April-December 2014-15 was 166.685 MMT, marginally higher than 166.362 MMT during April-December 2013-14.

Exploration of unconventional resources

6.32 Coal Bed Methane (CBM): Out of the total available coal-bearing area of 26,000 sq. km for CBM exploration in the country, exploration has been initiated in about 17,000 sq. km. The estimated CBM resources in the country are about 92 trillion cubic feet (TFC), of which only 9.9 TCF has so far been established. Commercial Production of CBM in India has now become a reality with current production of about 0.60 million metric standard cubic metre per day (MMSCMD).

6.33 Shale Oil and Gas: Under the first phase of assessment of shale oil and gas, fifty Petroleum Exploration Lease (PEL) / Petroleum Mining Lease (PML) blocks have been awarded to ONGC and five to OIL. These blocks are located in Assam (6), Arunachal Pradesh (1), Gujarat (28), Rajasthan (1), Andhra Pradesh (10), and Tamil Nadu (9). ONGC has drilled one well and spudded another in Cambay Basin, Gujarat, for assessment of shale gas/shale oil potential of Cambay Basin.

NEW AND RENEWABLE ENERGY

6.34 To provide a big push to solar energy, two new schemes, viz., 'Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects' and 'Pilot-cum-Demonstration Project for Development of Grid Connected Solar PV Power Plants on Canal Banks and Canal Tops' were rolled out in December, 2014. Supplementary guidelines were issued under the existing 'Solar Pumping Programme for Irrigation and Drinking Water' scheme to solarize the targeted one lakh such pumps throughout the country during the current year.

6.35 Under the 'Pilot-cum-Demonstration Project for Development of Grid Connected Solar PV Power Plants 'in principle' approval has so far been accorded to canal-top projects for generation of 34 MW solar power and canal-bank projects for 35 MW.

COAL

6.36 A quantum jump in production of domestic coal is critical when the country is gearing up to revive economic growth. The focus is therefore on addressing quantity, quality and time-bound transportation issues so that the fuel needs of a growing economy are met.

Production

6.37 The annual target for coal production for 2014-15 is 630.25 MT. Production of raw coal during April-December 2014 at 426.7 MT increased by 9.1 per cent compared to 1.5 per cent growth in the corresponding period of 2013-14 . Though the production of coal has been increasing over the years, total imports including both coking and non-coking coal have also increased due to higher demand mainly from fuel-starved power stations (Table 6.6).

Coal Mines (Special Provisions) Ordinance, 2014

6.38 The government has taken quick decisions to overcome the uncertainty in the coal sector emerging from the Supreme Court judgment dated 20 August, 2014 and its order dated 24 September, 2014 cancelling allocation of certain coal blocks and issuing directions with regard to them. The central government has issued the Coal Mines (Special Provisions) Ordinance, 2014 on 21 October 2014 followed by the Coal Mines (Special Provisions) Second Ordinance, 2014 on 26 December 2014. The main purpose of these ordinances is to provide for allocation of coal mines to steel, cement, and power utilities which are vital for development and, ensure smooth transfer of rights, title, and interests in the mines/blocks along with their land and other associated mining infrastructure to the new allottees to be selected

Table 6.6 : Production, Supply, and Import of Coal

(million tonnes)

Year	All India coal		CIL		Imports		Total imports
	Production	Offtake/ supply	Production	Offtake/ supply	Coking	Non-coking	
2008-09	492.76	489.17	403.73	400.72	21.08	37.92	59.00
2009-10	532.04	513.79	431.26	415.22	24.69	48.57	73.26
2010-11	532.70	523.47	431.32	423.78	19.48	49.43	68.91
2011-12	539.95	535.30	435.84	432.62	31.80	71.05	102.85
2012-13	556.40	567.14	452.21	464.54	35.56	110.22	145.78
2013-14	565.77	571.25	462.41	470.91	37.19	131.25	168.44
2014-15*	485.38	497.12	388.98	398.29	27.6 #	110.0 #	137.6 #

***Source* : Ministry of Coal.**
***Notes* : *Up to January 2015.**
 # Import figures are up to November 2014. CIL is Coal India Limited.

through an auction or allotment (to government companies). The allocation of coal blocks would now be made in line with the provisions of the ordinances and rules made under them and the auction of coal blocks would be through an e-auction process in order to keep the process transparent. The methodology for fixing a floor/ reserve price for auction and allotment of these coal mines/blocks has also been spelt out by the government. The government has assigned high priority to the early completion of critical railway projects for movement of coal.

MINERALS

6.39 The share of the mining and quarrying sector as a percentage of gross domestic product (GDP) has declined from 2.8 per cent in 2010-11 to 2.1 per cent in 2013-14 (Provisional Estimates). During this period, following in the wake of various judicial pronouncements, and the Justice Shah Commission Report, several mining leases were either suspended or closed down. To overcome the problems in the sector, an enabling environment based on sound principles of transparency and efficiency is being designed to provide a fair level playing field to both domestic and foreign investors.

Settling the policy paradigm

6.40 To give a fillip to the mining sector, it has been decided to amend the provisions of the Mines and Minerals (Development & Regulation) Act , 1957 (MMDR) with the objectives of: (a) providing greater transparency in allotment by auctioning mining leases; (b) attracting private investment and high technology by promoting easy transferability; and (c) obtaining an increased share for the state governments. To this effect an ordinance has been promulgated on 12 January 2015. The salient features of the Mines & Minerals (Development Regulations) (Amendment Ordinance 2015) include: –

(a) Auction for realization of fair value: For realization of the fair share value of the mineral resources and for improving transparency in allocation of mineral resources, a provision has been made for grant of mineral concessions only through auction by competitive bidding. However, dispensation in respect of public sector entities has to be specified separately.

(b) Dispensing with discretion and addressing possible disruption: To remove discretion in grant of renewals, provisions for renewal of mining leases has been removed. The period of mining lease has been increased to fifty years. After fifty years a lease will be auctioned afresh.

(c) Relief to project-affected people/district: In order to earmark funds for benefit of persons affected by mining, setting up of a District Mineral Foundation in every district affected by mining has been announced. The resources for the Foundation will be raised by way of an additional levy, not exceeding one-third of the royalty, and as decided by the Government of India from time to time. The state governments are required to frame rules for the governance structure of the Foundation and effective utilization of its funds.

(d) Boost to exploration: The establishment of a National Mineral Exploration Trust has been proposed for the purpose of regional and detailed exploration. This will be funded by an additional levy not exceeding 2 per cent of the royalty.

(e) Easy transferability to encourage private sector participation: To attract private agencies and promote the latest technology, a provision has been made for easy transfer of mineral concessions which have been granted through auction route.

(f) Timely disposal of cases: For eliminating delays in administration and facilitating expeditious and optimum development of the mineral resources, a provision has been made to empower the central government to frame rules for fixing time limits for the various stages in processing applications for grant of mining lease or prospecting license-cum-mining lease.

(g) Deterrents against illegal mining: To curb the menace of illegal mining, imposition of stricter penalties like imprisonment up to five years or fine up to ₹ 5 lakh per hectare of area where illegal mining is proved are proposed.

6.41 For a smooth transition to the new mining regime, several steps need to be taken by the government and various other agencies. These include piloting the Amendment Bill in the Parliament, framing of rules for amendment of Mineral Concession Rules, 1960 and Mineral Conservation and Development Rules, 1988 in line with the proposed changes in the MMDR Act, laying down the auction procedure including preparation of standard bidding documents, setting up of District Mineral Foundation and National Mineral Exploration Trust and most importantly hand holding the state governments, and strengthening their capacity to deal with the transition to the auction regime without any disruption in the production of important minerals.

Railways

6.42 Indian Railways (IR) is faced with the challenge of sustaining traffic volume in an environment of moderate growth. The key focus areas for IR include creation of capacity, modernization of network, improvement in asset utilization and productivity, modernization of rolling stock and maintenance practices, and improvement in the quality of services. Investments are being prioritized in important areas like Dedicated Freight Corridors (DFCs) , high speed rail, high capacity rolling stock, last mile rail linkages, and port connectivity. Box 6.3 lists some of the initiatives by IR.

Freight performance

6.43 Freight loading (excluding loading by Konkan Railways) by IR during 2013-14 was 1051.64 million tonnes, as against 1008.09 million tonnes in 2012-13, registering an increase of 4.32 per cent. During April -December 2014-15, IR carried 806.38 million tonnes of revenue-earning freight traffic, as against a budget target of 807.18 million tonnes. The freight carried shows an increase of 39.15 million tonnes over the freight traffic during the same period in 2013-14, translating into an increase of 5.1 per cent.

Box 6.3 : New initiatives by IR during 2014-15

i. **Completion of Udhampur-Katra broad gauge line:** The Udhampur-Katra broad gauge line in Jammu and Kashmir, bringing the state closer to the rest of the nation, is an engineering marvel by IR. Four train services up to Katra have commenced from July 2014.

ii. **Meghalaya gets rail connectivity:** Meghalaya got its first rail connectivity with the completion of the new Dubhnoi-Mendipathar line in August 2014. A new route from Mendipathar in Meghalaya to Guwahati in Assam, got connected by rail in November , 2014.

iii. **High speed Bullet Trains:** Steps are under way for introduction of High Speed Bullet Trains in the country on the Mumbai-Ahmedabad corridor, as part of the Diamond Quadrilateral network of high speed rail, connecting major metros and growth centres of the country.

iv. **Next Generation e-ticketing(NgeT) application:** The newly launched NgeT, developed by the Central Railway Information Centre (CRIS) has enabled sharp increase in online ticket booking capacity, number of enquiries per minute, as well as the capacity to handle concurrent sessions.

v. **Premium special trains:** To make sufficient berths available to passengers, and to earn additional revenue, as compared to trains operating on normal fares, IR has introduced premium special trains under the dynamic fare system.

vi. **Harnessing solar energy:** The Rail Coach Factory, Rae Bareli is presently functioning completely on solar power. A 30 kw solar plant has been commissioned, on the roof top of Rail Bhawan at New Delhi and provision of solar plants at other Railway buildings is being expedited , preferably under the public-private partnership (PPP) model.

vii. **Wi-Fi Broadband service at select railway stations:** Bengaluru and New Delhi Railway Stations have been provided Wi-Fi broadband facilities.

viii. **e-catering service in trains:** Indian Railways Catering and Tourism Corporation, has been entrusted the task of implementation of e-catering service in trains.

ix. **Cooperation with China :** An MoU and an Action Plan have been signed between the Government of India and People's Republic of China, for enhancing technical cooperation in the railway sector. The potential cooperation areas in the MoU include i) training in heavy haul freight transportation, ii) raising speed of trains on existing routes, iii) station re-development, iv) high speed rail, and v) setting up of a Railway University.

x. **Early completion of coal transportation projects:** Three rail connectivity projects for coal movement in Jharkhand, Odisha, and Chhattisgarh have been put on fast track.

Semi-high speed trains

6.44 Nine corridors have been identified for the introduction of semi-high speed trains at 160/200 kilometers per hour (kmph), viz. (i) Delhi-Agra (ii) Delhi-Chandigarh (iii) Delhi-Kanpur (iv) Nagpur-Bilaspur (v) Mysore-Bengaluru-Chennai (vi)Mumbai-Goa (vii) Mumbai-Ahmedabad (viii) Chennai-Hyderabad; and (ix) Nagpur-Secunderabad. All technical inputs required for running of commercial services at 160 kmph, on the New Delhi-Agra corridor, have been provided, and the corridor is ready for introducing the service. A feasibility study for raising the speed on the Chennai-Bengaluru-Mysore corridor is being taken up under a co-operation agreement with China.

Roads

6.45 India has one of the largest road networks of over 48.65 lakh km, comprising expressways, national highways, state highways, major district roads, other district roads, and village Roads. The national highways (NHs) with a total length of 96,214 km serve as the arterial network of the country. Table 6.7 shows the status of the National Highways Development Project (NHDP) as on 31 December 2014.

Financing of NHDP

6.46 To fund the NHDP, a part of the fuel cess imposed on petrol and diesel is allocated as budgetary support. The National Highways Authority of India (NHAI) leverages this to borrow

Table 6.7 : Status of NHDP as on 31 December 2014

Sl. No.	NHDP component	Total length (km)	Completed 4/6 lane(km)	Under implementation		Balance for award of civil works (km)
				Length (km)	No. of contracts	
1.	NHDP Phase I (GQ, port connectivity, others)	7,522*	7,519	3	1	-
2.	NS-EW Corridors	6,647	5,836	441	45	370
3.	NHDP Phase III	12,109	6,352	4,708	125	1,049
4.	NHDP Phase IV	20,000	907	7,759	114	11,334
5.	NHDP Phase V	6,500	1,973	2,107	27	2,420
6.	NHDP Phase VI	1,000	0	0	0	1,000
7.	NHDP Phase VII	700	22	19	1	659
	Total	**54478**	**22609**	**15037**	**313**	**16832**

Note : *** Two projects (24 km) for Chennai – Ennore port connectivity have been re-awarded. These two projects were merged with another project (6 km) under Phase – I whereby total length increased by 24 km.**

additional funds from the debt market. Till date, such borrowings have been limited to funds raised through 54 EC (capital gains tax exemption) bonds and tax-free Bonds.

6.47 The economic down turn seen in the last few years caused reduction in the growth of traffic and consequently lower revenue realization for build operate transfer (BOT) road projects. The reduced revenue realization adversely affected debt servicing by concessionaires. This caused widespread default in debt accounts. Concessionaires unable to service debt had to seek restructuring from lenders. With debt obligations mounting on account of debt repayment deferments, sector exposure increased, reaching the ceiling exposure norms for the road sector. The road sector debt portfolio faced disproportionately high levels of default. Consequently the appetite for BOT PPP projects came down as developers had no equity to contribute and lenders were unwilling to provide debt funds. The government stepped in and took various initiatives to restore market confidence. To ensure that project execution does not suffer owing to cash flow constraints, rescheduling of premium payment in BOT projects has been granted, to be available to concessionaires experiencing subsistence revenue shortfall.

Improvement of road connectivity in left-wing extremism (LWE)-affected areas

6.48 The government has approved a scheme for development of 1,126 km of national highways and 4,351 km of state roads in left -wing extremism (LWE) affected areas as a special project with an estimated cost of about ₹ 7,300 crore. Development in 3,299 km length has been completed up to December 2014 and cumulative expenditure incurred so far is ₹ 4,374 crore.

Creation of a corporation to expedite works in the North-Eastern Region

6.49 The National Highways and Infrastructure Development Corporation Ltd. has been created to expedite development of highways in the North-Eastern region and border areas.

CIVIL AVIATION

6.50 One of the significant achievements of the civil aviation sector is that the PPP model for airports has led to a significant improvement in infrastructure and in collection of revenues.

Passenger and cargo handled

6.51 There has been healthy increase in international passengers and cargo handled at

Indian airports during 2014-15. During April - December 2014-15, 101.34 million domestic passengers and 36.74 million international passengers were handled at Indian airports. Domestic passenger traffic throughput increased by 7.1 per cent and international passengers increased by 10.3 per cent during April-December 2014-15 as compared to the same period in 2013-14. International cargo throughput at Indian airports was 1.17 million metric tons while domestic cargo throughput stood at 0.74 million metric tons. International cargo throughput increased by 8.3 per cent and domestic by 19.3 per cent in April –December 2014-15 as compared to the corresponding period of previous year.

Airport Infrastructure

6.52 The Airports Authority of India (AAI) is managing 125 airports in the country. It has finalized a no frills airport model to build airports in remote areas with the objective of improving air connectivity and boosting the country's economic growth. During 2014-15, the AAI has completed development of airports at Bikaner and Jaisalmer (Rajasthan), Bhatinda (Punjab), and Cuddapah (Andhra Pradesh).

Initiatives

6.53 The major initiatives to augment better airport infrastructure across the country are: (a) implementation of PPP projects at four airports of the AAI, namely Chennai, Kolkata, Ahmedabad, and Jaipur, (b) setting up of greenfield airports, namely, Mopa in Goa; Navi Mumbai, Shirdi and Sindhudurg in Maharashtra; Shimoga, Gulbarga, Hassan, and Bijapur in Karnataka; Kannur and Arnamula in Kerala; Durgapur in West Bengal; Pakyong in Sikkim; Datia/Gwalior (cargo) in Madhya Pradesh; Kushinagar in Uttar Pradesh; and Karaikal in Puducherry, and (c) development of small airports in Tier II and Tier III cities, namely Hubli and Belgaum in Karnataka, Kishangarh in Rajasthan, Jharsuguda in Odisha, and Tezu in Arunachal Pradesh.

Ports

Cargo traffic at Indian Ports

6.54 During April-December, 2014-15, major and non-major ports achieved a total cargo throughput of 775.17 million tonnes, showing an increase of 6.8 per cent over the same period of 2013-14 (Table 6.8). The growth of cargo at non-major ports was 9.1 per cent while that at major ports was 5.0 per cent.

Telecommunications

6.55 The telecom sector continues to grow rapidly. During April-November 2014-15, 31.2 million new telephone connections were added, way ahead of the 12.13 million new connections in the corresponding period of 2013-14. Overall teledensity has increased from 75.23 per cent at the beginning of April 2014 to 77.12 per cent at the end of November 2014, while total broadband connections have touched 82.22 million.

Table 6.8 : Cargo Traffic at Ports

(million tonnes)

Category of ports	2012-13	2013-14	April-December	
			2013-14	2014-15
Major ports	545.83	555.49 (1.8)	413.06	433.86
Non-major ports	387.92	420.24 (8.3)	312.84	341.31
All ports	933.75	975.73 (4.5)	725.90	775.17

Source : Ministry of Shipping.

Note : Figures in parentheses indicate growth over the previous year.

National Optical Fibre Network Project

6.56 In order to ensure equity in access and to accelerate socio-economic growth in rural areas, the Department of Telecommunications (DoT) has planned to connect all 2,50,000 Gram Panchayats in the country with minimum 100 Mbps bandwidth under the National Optical Fibre Network Project (NOFN). Cable laying has been completed in about 5000 villages and the project is likely to be completed by 31 December 2016.

Spectrum Auction

6.57 The DoT plans to conduct auction of spectrum in 2100 MHz, 1800 MHz, 900 MHz, and 800 MHz bands. A roadmap will also be chalked out for providing more spectrums, as per the National Telecom Policy 2012, keeping in view the objective of affordable and reliable communication services to serve public interest.

URBAN INFRASTRUCTURE

6.58 Urbanization in India has become an irreversible process and an important determinant of national economic growth and poverty reduction. The increased pace of urbanization poses challenges with respect to providing adequate infrastructure, improving connectivity, and mobilizing resources The level of urbanization has increased from 27.78 per cent in 2001 to 31.18 per cent in 2011. According to Census 2011, as many as thirty-five cities in India had a million plus population. At current rates of growth, urban population in India is projected to reach 575 million by 2030.

New schemes

6.59 Three new schemes have been announced for development of urban infrastructure. These are the Swachh Bharat Mission (SBM), Heritage City Development and Augmentation Yojana (HRIDAY), and Smart City Scheme. All statutory towns will be covered under the SBM which will be in force till 2 October 2019. The objectives of the SBM are elimination of open defecation, eradication of manual scavenging, modern and scientific solid waste management, and generating awareness about sanitation and its linkage with public health. The objective of HRIDAY is to preserve the character of a heritage city and facilitate inclusive heritage-linked urban development by exploring various avenues including involvement of the private sector. It is proposed to develop 100 smart cities identified on the basis of stipulated criteria .These cities will have smart (intelligent) physical, social, institutional, and economic infrastructure to improve public services.