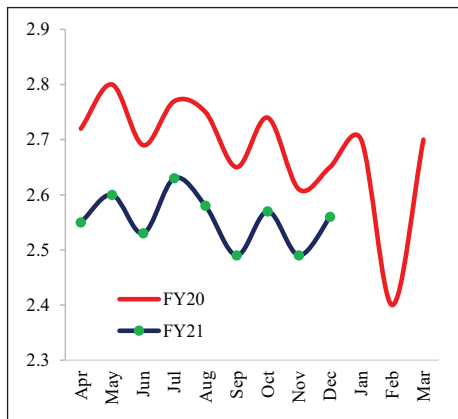


Petroleum and Natural Gas

8.62 India is the third-largest energy consumer in the world after USA and China. With a share of 5.8 per cent of the world’s primary energy consumption, the Indian energy consumption basket is primarily dominated by Coal and Crude Oil. India’s indigenous crude oil production declined to 32.17 Million Metric Tonnes (MMT) in FY20 as against 34.20 MMT in FY19. Of the total crude oil & condensate production, 64.1 per cent was from ONGC, 9.7 per cent from OIL, and 26.2 per cent from the Production Share Contract (PSC) regime. During FY21 (Apr-Dec), oil production registered a decline of 5.7 per cent as compared to the corresponding period in FY20 (Figure 39). The decline in production is mainly on account of the spread of COVID-19. Therefore, production is expected to return to normalcy given the economic recovery.

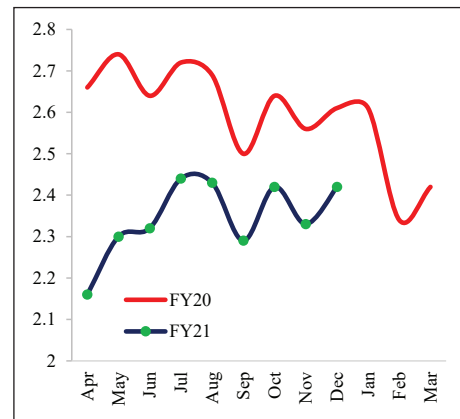
8.63 Natural Gas production during FY20 was 31.18 Billion Cubic Meters (BCM) as against 32.87 BCM in FY19 (Figure 40). Of the total production of natural gas, 76.1 per cent was from ONGC, 8.6 per cent from OIL, and 15.3 per cent from the PSC regime. During April-December 2020, gas production was 21.13 BCM which was 11.3 per cent lower than the production during the same period in FY20.

Figure 39: Monthly Production of Crude Oil (MMT)



Source: Survey calculations based on MoPNG data.

Figure 40: Monthly Production of Natural Gas (BCM)



Source: Survey calculations based on MoPNG data.

8.64 Processed Crude Oil for the year FY20 was 254.39 MMT as against 257.20 MMT in FY19, showing a decrease of about 1.1 per cent. During FY20, most refineries had planned shutdowns for the implementation of quality upgradation projects. Crude processed during April-December 2020 was 160.36 MMT which is 15.8 per cent lower than crude processed during April-December 2019. Despite this, the Government provided much needed support to poor households by distributing over 14 crore free LPG cylinders, and continued uninterrupted fuel supplies across the country throughout COVID-19 lockdown.

Power

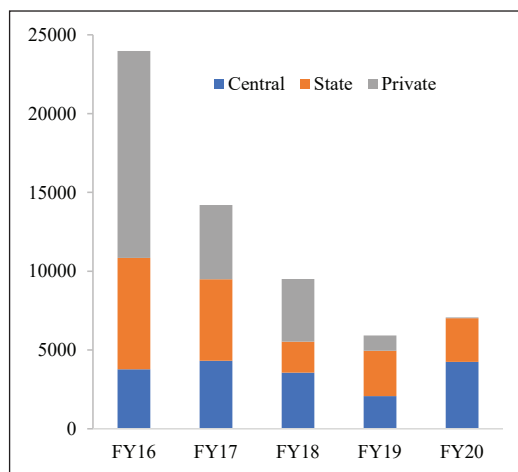
8.65 Electricity is essential for powering economic activity and is also required in leisure time. The power sector has witnessed substantial transformation from both the demand (universal electrification) and supply-side (the advent of green energy). Commendable progress has been made in the generation and transmission of electricity in India. The total installed capacity has increased from 3,56,100 MW in March-2019 to 3,70,106 MW in March 2020. Further, the generation capacity increased to 3,73,436 MW in October-2020 and comprised of 2,31,321 MW

of thermal, 45,699 MW of hydro, 6,780 MW of nuclear, and 89,636 MW of renewables and others. The capacity addition in the power sector was mainly driven by the Government in the year FY20 (Figure 41).

8.66 The decline in energy deficit may be partially attributed to enhanced energy efficiency and improved energy intensity in India. Energy intensity is defined as the quantity of energy required to produce a unit of output. Therefore, lower the energy intensity better it is. The energy intensity of India (at 2011-12 prices) decreased from 65.6 toes per crore rupees in FY12 to 55.43 toe per crore rupees in FY19 (Figure 42). At the same time, the per capita consumption increased from 0.47 toe in FY12 to 0.58 toe in FY19.

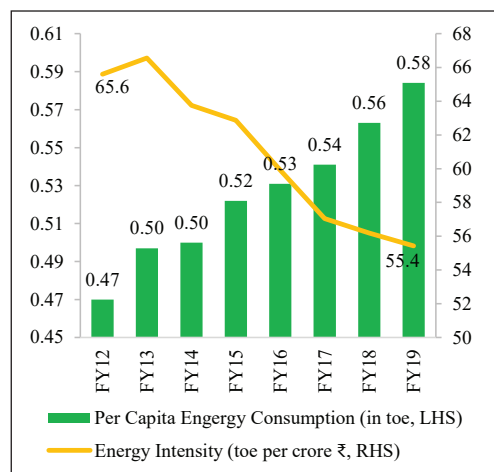
8.67 In 2014, GoI approved the Integrated Power Development Scheme (IPDS) to facilitate state utilities to ensure quality and reliable 24x7 power supply in the urban areas with a total outlay of ₹ 32,612 crores. So far, projects worth ₹ 30,991 crores have been sanctioned to the States and the distribution strengthening has been completed in 442 of the 546 circles till the end of September-2020. Further, the country has already accomplished two major landmarks in rural electrification arena: (i) 100 per cent village electrification under Deen Dayal Upadhyaya Gram Jyoti Yojana, and (ii) universal household electrification under ‘Pradhan Mantri Sahaj Bijli Har Ghar Yojana’ (Saubhaagya).

Figure 41: Capacity Addition in Power (in MW)



Source: Survey calculations based on Ministry of Power data.

Figure 42: Energy intensity and Per capita Consumption trend (2011-2019)



Source: Survey calculations based on Ministry of Power data.

8.68 T&D losses have been declining since 2001-02 but are still substantial (Figure 44). As compared to the T&D losses of the peer countries, India's T&D are very high (Figure 43).

Mining Sector

8.69 Minerals are valuable natural resources that are finite and play a key role in the overall economic development. The mining sector is one of the core sectors of the economy. India produces as many as 95 minerals which include 4 hydrocarbon energy minerals (coal, lignite, petroleum & natural gas), 5 atomic minerals (ilmenite, rutile, zircon, uranium, and monazite), 10 metallic, 21 non-metallic, and 55 minor minerals. The Gross Value Added (GVA) of the