FIPI

Federation of Indian Petroleum Industry

POLICY & ECONOMIC REPORT

OIL & GAS MARKET
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Executive Summary

According to the latest World Economic Outlook (WEO), global growth is projected to slow from 3.3 percent in 2024 to 3.2 percent in 2025 and 3.1 percent in 2026, with advanced economies growing around 1.5 percent and emerging market and developing economies just above 4 percent.

According to IMF, prolonged uncertainty, more protectionism, and labor supply shocks could reduce growth. Further, fiscal vulnerabilities, potential financial market corrections, and erosion of institutions could threaten stability.

In case of India, according to the Reserve Bank of India (RBI)'s Monetary Policy Report released in October, 2025, India's GDP growth is forecasted for FY 2025-26 at 6.8% from earlier estimate of 6.5%. Domestic growth is performing well due to strong consumption, investments, and government spending, with supportive factors like a good monsoon, GST 2.0, better credit flow, and rising capacity utilisation sustaining the positive outlook.

India's real GDP grew 7.8% in Q1 FY 2025-26, up from 7.4% in the previous quarter, the fastest pace in seven quarters, led by strong investment and consumption. Growth for FY 2025-26 is projected at 6.8% (Q1: 7.8%, Q2: 7.0%, Q3: 6.4%, Q4: 6.2%), while FY 2026-27 is estimated at 6.6%, assuming normal monsoon and stable conditions.

Consumers' optimism for the year ahead, which is measured by the future expectations index, strengthened further for both urban and rural households, remaining in optimistic territory.

Several global agencies have maintained India's strong economic growth prospects, highlighting the country's resilience amid global uncertainties.

IMF (FY26: 6.4%), Fitch (FY26: 6.9%, FY27: 6.3%), S&P Global (FY26: 6.5%), United Nations (FY26: 6.3%, FY27: 6.4%), CII (FY26: 6.4-6.7%) and OECD (FY26: 6.7%) have noted robust domestic demand, expanding investments, and a stable external sector as key drivers. Strong policy support, structural reforms, and a vibrant services sector are further reinforcing the growth outlook. These projections highlight broad confidence in India's ability to sustain high growth amidst global challenges.

Year-on-year inflation rate based on All India Consumer Price Index (CPI) for the month of September, 2025 over September, 2024 is 1.54% (Provisional). There is decrease of 53 basis points in headline inflation of September, 2025 in comparison to August, 2025. It is the lowest year-on-year inflation after June, 2017.

The decline in headline inflation and food inflation during the month of September, 2025 is mainly attributed to favorable base effect and to decline in inflation of Vegetables, Oil and fats, Fruits, Pulses and products, Cereal and products, Egg, Fuel, and light etc.

Further, RBI has lowered its CPI inflation forecast for FY 2025–26 to 2.6%, down from 3.1%. While the inflation was earlier projected at 3.8% (Q4 FY 2024-25) and 3.6% (Q1 FY 2025-26), the actual outcomes

were lower by 90 bps. The fall was driven by a steep, prolonged 9-month food price decline of 10.5%, the longest in the CPI series.

The HSBC Flash India Composite Output Index, which measures the combined performance of India's manufacturing and services sectors, fell to 59.9 in October from 61.0 in September, marking its lowest level since May this year, according to data released by S&P Global. This seasonally adjusted index, which tracks month-on-month changes in the combined output of the two sectors, indicated a slower rate of expansion. However, overall growth remained strong, with the index staying well above the neutral mark.

On the external front, India's foreign exchange reserves rose by $4.496 billion, reaching $702.28 billion for the week ending October 17, majorly driven by an increase in the value of gold reserves. Foreign currency assets (FCA), the largest part of the reserves, fell by $1.692 billion to $570.411 billion. These assets are influenced by changes in the value of currencies such as the euro, pound, and yen. The value of gold reserves rose sharply by $6.181 billion to $108.546 billion. Special Drawing Rights (SDRs) also saw a slight increase of $38 million, reaching $18.722 billion. India's reserve position with the International Monetary Fund (IMF) fell by $30 million to $4.602 billion in the reporting week, according to RBI data.

As far as oil and gas industry is concerned, the oil market has been in surplus since the start of the year, but stock builds have so far been concentrated in crude in China and gas liquids in the United States. By September, however, a surge in Middle East production, coinciding with seasonally lower regional crude demand, boosted exports to two and a half-year high. This, combined with robust flows from the Americas, swelled oil on water in September by a massive 102 mb, equivalent to 3.4 mb/d, the largest increase since the Covid-19 pandemic. Brent crude oil futures rose by an average $0.30/bbl to $67.60/bbl m-o-m in September. But by early October, the wave of tankers at sea and the announcement of new trade measures pushed prices down by $4/bbl to $64/bbl.

Global oil supply in September was up by a massive 5.6 mb/d compared with a year ago. OPEC+ accounted for 3.1 mb/d of the increase, as the Group of 8 unwound 2 mb/d of production cuts, and as Libya, Venezuela and Nigeria all posted strong gains. Based on their latest agreement, OPEC+ is now on track to lift output by 1.4 mb/d on average this year and by a further 1.2 mb/d in 2026. Non-OPEC+ producers are set to add 1.6 mb/d and 1.2 mb/d, respectively, over the same timeframe, with the United States, Brazil, Canada, Guyana and Argentina leading growth. Risks to the forecast remain, with sanctions imposed on Russia and Iran compounding geopolitical concerns. Persistent attacks on Russian energy infrastructure have cut Russian crude processing by an estimated 500 kb/d, resulting in domestic fuel shortages and lower product exports. The drop in Russian middle distillate exports reverberated globally as regular buyers scrambled to secure alternative supplies, bidding up diesel and jet fuel cracks in the process. Light sweet crude refining margins hit two-year highs in Europe and 18-month highs on the US Gulf Coast and in Singapore in September.

Crude spot prices were mixed in September. Light sweet benchmarks edged lower m-o-m, while medium sour grades posted gains. North Sea Dated and WTI came under pressure from softer refinery demand amid the autumn maintenance season in the US and Europe, and higher WTI availability from

the USGC. Additional downward pressure stemmed from selling activities in the futures market. However, losses were partly offset by more substantial refining margins, particularly for middle distillates, and stronger buying interest from Asia-Pacific refiners. Improved west-to-east arbitrage economics also supported demand for Atlantic Basin crudes.

Natural Gas spot prices at the US Henry Hub benchmark averaged $2.97 per million British thermal units (MMBtu) in September 2025. Henry Hub's natural gas prices rebounded in September by 2.1%, m-o-m. Prices rose due to a combination of higher end-of-summer demand and pipeline maintenance in some regions. However, stable LNG exports coupled with elevated stocks limited upside support. According to data from the US Energy Information Administration (EIA), average weekly natural gas storage increased by 8.1%, m-o-m, in September. Prices were up by ~30.3%, y-o-y.

Economy in Focus

1. A snapshot of the global economy

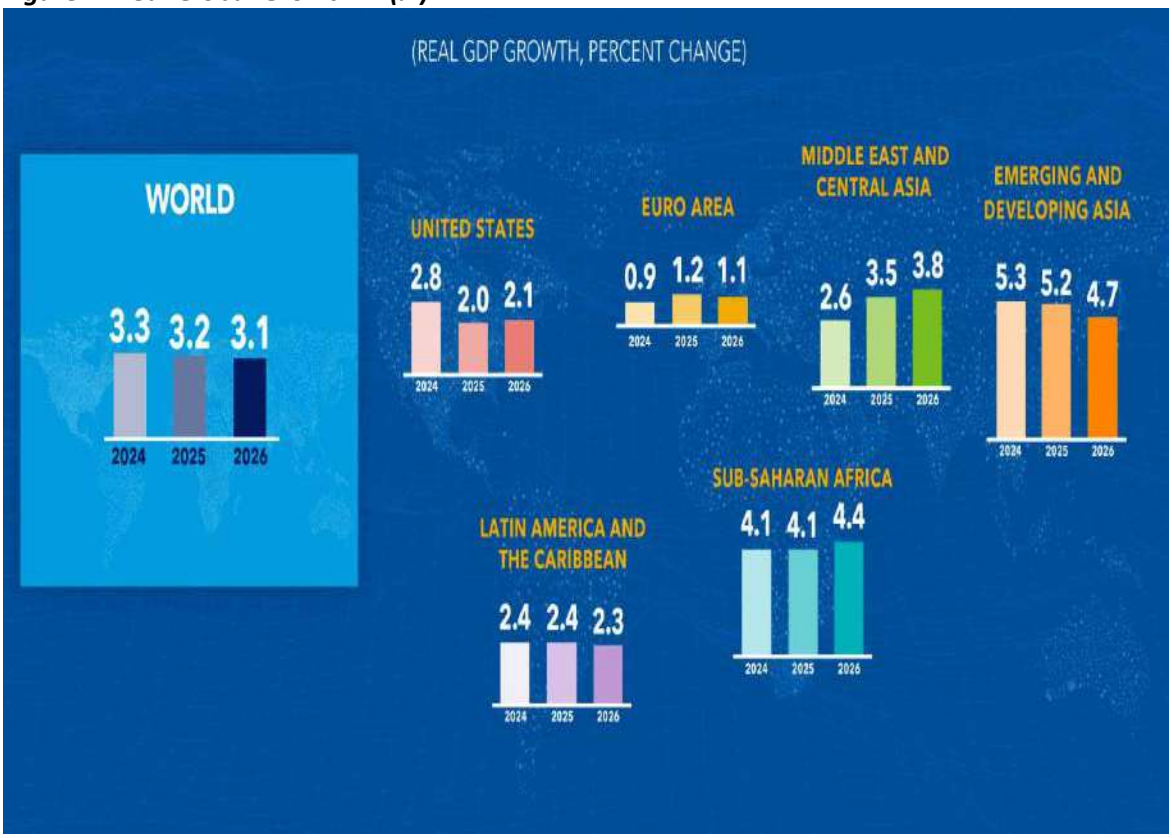
Global economic growth

- According to the latest World Economic Outlook (WEO), global growth is projected to slow from 3.3 percent in 2024 to 3.2 percent in 2025 and 3.1 percent in 2026, with advanced economies growing around 1.5 percent and emerging market and developing economies just above 4 percent.

- According to IMF, prolonged uncertainty, more protectionism, and labor supply shocks could reduce growth. Further, fiscal vulnerabilities, potential financial market corrections, and erosion of institutions could threaten stability.

- In the United States, growth is projected to slow to 2.0 percent in 2025 and remain steady at 2.1 percent in 2026, broadly the same as in July and an improvement relative to April on account of lower effective tariff rates.

Figure 1: Real Global Growth in (%)



Source- IMF

- Growth in the euro area is expected to pick up modestly to 1.2 percent in 2025 and to 1.1 percent in 2026. Elevated uncertainty on multiple fronts and higher tariffs are the main drivers.
- In Japan, growth is expected to accelerate from 0.1 percent in 2024 to 1.1 percent in 2025 and moderate to 0.6 percent in 2026. These dynamics are driven by an expected pickup in real wage growth supporting private consumption, despite headwinds from elevated trade policy uncertainty and softening external demand.
- In the United Kingdom, growth in 2025 and 2026 is expected to be 1.3 percent, revised, on a cumulative basis, slightly upward relative to April.
- Growth in emerging and developing Asia is expected to decline from 5.3 percent in 2024 to 5.2 percent in 2025 and further to 4.7 percent in 2026.
- In China, the 2025 GDP growth forecast was revised downward by 0.6 percentage point in the April 2025 WEO, with the escalation of trade tensions between China and the United States.
- In India, growth is projected to be 6.6 percent in 2025 and 6.2 percent in 2026. Compared with the July WEO Update, this is an upward revision for 2025, with carryover from a strong first quarter more than offsetting the increase in the US effective tariff rate on imports from India since July, and a downward revision for 2026.
- In Latin America and the Caribbean, growth is projected to remain stable at 2.4 percent in 2025 and fall slightly to 2.3 percent in 2026.

Figure 2: Global Growth projections in (%)

(Real GDP, annual percent change)	2024	PROJECTIONS 2025	2026
World Output	**3.3**	**3.2**	**3.1**
Advanced Economies	**1.8**	**1.6**	**1.6**
United States	2.8	2.0	2.1
Euro Area	0.9	1.2	1.1
Germany	-0.5	0.2	0.9
France	1.1	0.7	0.9
Italy	0.7	0.5	0.8
Spain	3.5	2.9	2.0
Japan	0.1	1.1	0.6
United Kingdom	1.1	1.3	1.3
Canada	1.6	1.2	1.5
Other Advanced Economies	2.3	1.8	2.0
Emerging Market and Developing Economies	**4.3**	**4.2**	**4.0**
Emerging and Developing Asia	5.3	5.2	4.7
China	5.0	4.8	4.2
India	6.5	6.6	6.2
Emerging and Developing Europe	3.5	1.8	2.2
Russia	4.3	0.6	1.0
Latin America and the Caribbean	2.4	2.4	2.3
Brazil	3.4	2.4	1.9
Mexico	1.4	1.0	1.5
Middle East and Central Asia	2.6	3.5	3.8
Saudi Arabia	2.0	4.0	4.0
Sub-Saharan Africa	4.1	4.1	4.4
Nigeria	4.1	3.9	4.2
South Africa	0.5	1.1	1.2
Memorandum			
Emerging Market and Middle-Income Economies	4.3	4.1	3.9
Low-Income Developing Countries	4.2	4.4	5.0

Source- IMF

Global Inflation

According to IMF, global headline inflation is projected to decline to 4.2 percent in 2025 and to 3.7 percent in 2026.

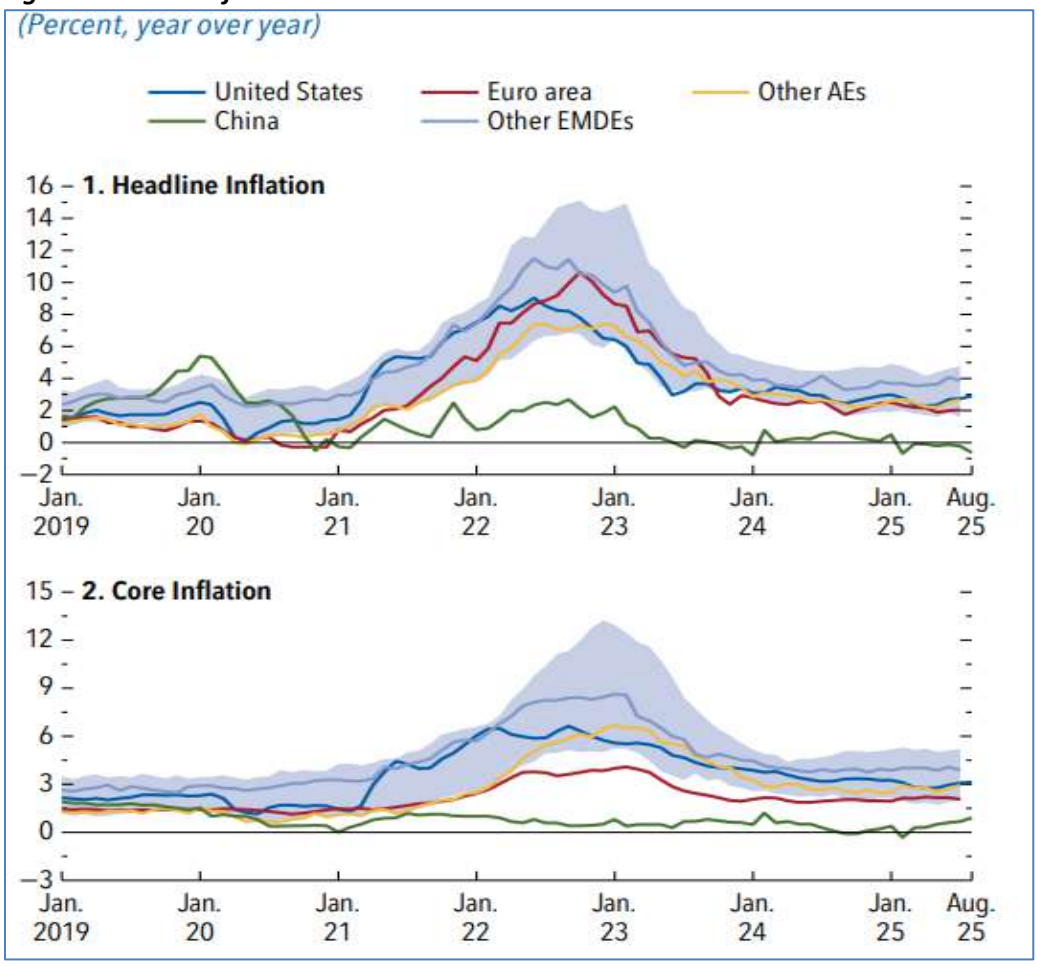
Inflation forecasts are revised upward in quite a few economies, relative to the October 2024 WEO, which serves as a pre-policy-shift benchmark. Among advanced economies, the most notable cases are

the United Kingdom and the United States. In the United Kingdom, headline inflation, which started picking up in 2024, is expected to continue rising in 2025 partly because of changes in regulated prices.

In the United States, inflation is expected to pick up beginning in the second half of 2025, as the impact of tariffs is no longer absorbed within supply chains and instead passed on to consumers. Inflation then is expected to return to the Federal Reserve's 2 percent target during 2027.

Among emerging market and developing economies, inflation forecasts for Brazil and Mexico are revised upward. For Brazil, the revision is more pronounced and in part reflects the stabilization of inflation expectations above target rates.

Figure 3: Global inflation trends

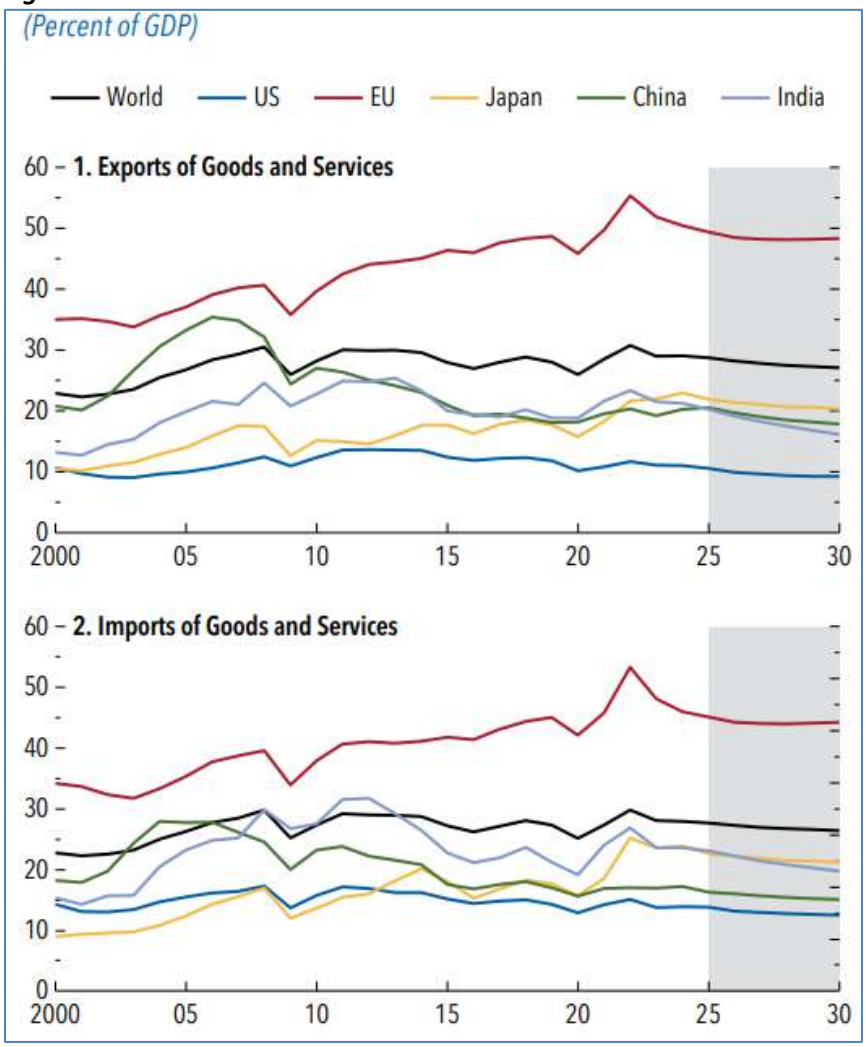


Source- IMF

Global Trade

According to IMF, trade volume growth is projected at an average rate of 2.9 percent in 2025–26, even with the temporary boost from front-loading in 2025, is lower than projected in the October 2024 WEO, which envisioned an average growth rate of 3.3 percent.

Figure 4: World trade



Source- IMF

Global trade activity was robust in the first quarter of 2025, driven by strong growth in US imports and in exports from Asia and the euro area because of front-loading in anticipation of higher tariffs in the United States. Some of this strength could be related to a weaker dollar.

In China, the decline in exports to the United States has been partly offset by higher exports to the euro area and countries in the Association of Southeast Asian Nations (ASEAN), in part supported by the depreciation of the renminbi against most currencies (excluding the US dollar).

Along with changes in the global trade landscape and other policy shifts, current account balances for the world's largest economies have also evolved.

- The US current account deficit was 4.6 percent of GDP in the first half of 2025, 1.9 percentage points wider than the 2013–24 average, mainly reflecting an increase in goods imports.

- The euro area current account surplus stood at 1.9 percent of GDP in the first half of 2025 compared with 3 percent over the same period in 2024 and 2.3 percent during 2013–24, largely because of an increase in the primary income deficit.

- Current account surpluses stood at 3.2 percent of GDP in China and 4.7 percent of GDP in Japan, which are larger than in the same period of 2024 and when compared with the historical averages during 2013–24.

2. Global Debt Remains Above 235% of World GDP- IMF

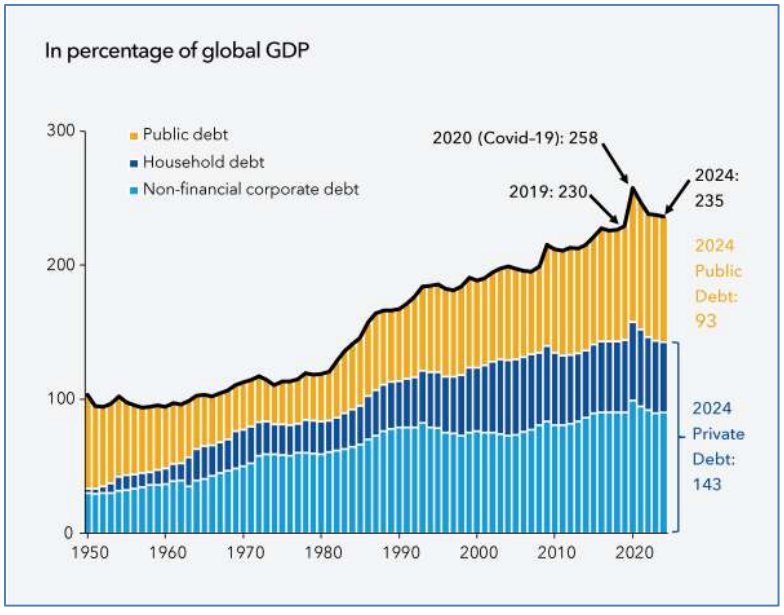
- Global debt has stabilized, though it remains at an elevated level, as a continued reduction in private-sector lending offset greater borrowing by governments.

- Total debt was little changed last year, just above 235 percent of global gross domestic product, according to the latest update of the IMF's Global Debt Database.

- Private debt declined to under 143 percent of GDP, the lowest level since 2015, reflecting a reduction in household liabilities and little change in non-financial corporate debt. In contrast, public debt rose to nearly 93 percent, according to our database reflecting an annual survey of the amount and composition of debt held by governments, businesses, and households.

- In US dollar terms, total debt increased slightly to $251 trillion, with public debt rising to $99.2 trillion and private debt decreasing to $151.8 trillion.

Figure 5: Global debt as a % of global GDP



Source- IMF

- In the US, general government debt last year rose to 121 percent of GDP (from 119 percent), while China saw an increase to 88 percent (from 82 percent). Excluding the US, public debt in advanced economies fell by more than 2.5 points to 110 percent of GDP. Increases in some

large, advanced economies like France and the UK were offset by declines in Japan and smaller economies, such as Greece and Portugal.

- Excluding China, public debt in emerging markets and developing economies edged down to under 56 percent on average.
- Private debt trends varied significantly across countries. The United States experienced a significant drop of 4.5 percentage points, to 143 percent of GDP), while China recorded an increase of 6 points, to 206 percent of GDP. Among other emerging markets and developing economies, private borrowing surged in larger economies like Brazil, India, and Mexico, but declined in Chile, Colombia, and Thailand.

The persistently high global fiscal deficit, averaging around 5 percent of GDP, is the main driver of rising public debt. This deficit still reflects legacy costs from the Covid-19—such as subsidies and social benefits—combined with rising net interest costs.

The decline in private debt stems from different factors depending on the country and income group. In many advanced economies, companies are borrowing less, likely in response to subdued growth prospects, continuing a trend started in 2023. In the US, strong balance sheet positions and cash holdings are also contributing to lower corporate borrowing. In other cases, rising public debt alongside falling private debt suggests a crowding-out effect, in which heavy public borrowing limits credit availability or raises its cost for the private sector.

3. Is AI adoption impacting job markets in South Asia? - World Bank

The rapid development of artificial intelligence (AI) is transforming the global economy and reshaping labor markets. South Asia's workforce has limited exposure to changes caused by the adoption of AI owing to the predominance of low-skill, agricultural, and manual jobs.

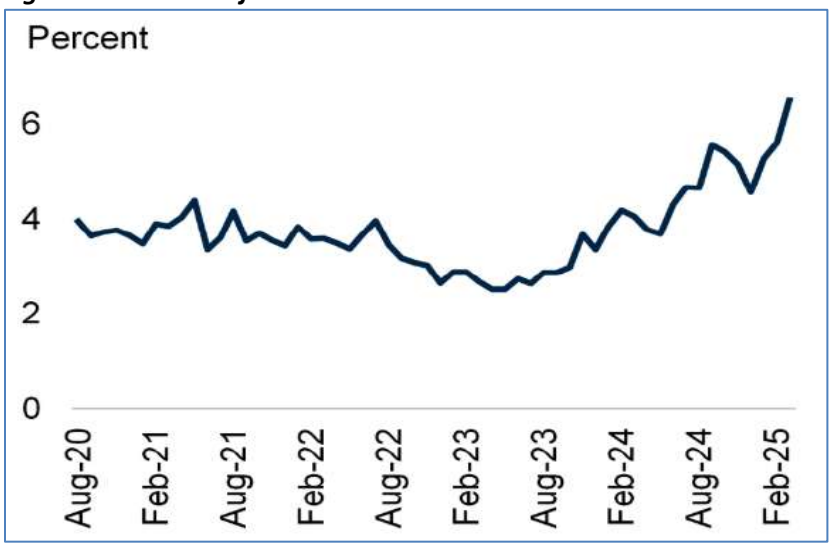
But moderately educated, young workers, especially in sectors such as business services and information technology, are vulnerable. But AI could also bring substantial productivity gains, especially in sectors that have strong potential for AI to complement humans.

- ***Rising importance of AI***

The economic shifts caused by AI will likely have profound consequences for labor markets in South Asia, bringing both opportunities and risks for sustained, rapid job creation.

According to job postings collected by Lightcast (a labor market research and consulting firm with a database covering 28 million listings between 2020 and 2025) between January 2023 and March 2025, the share of AI-related postings in South Asia more than doubled—from 2.9 to 6.5 percent of all listings—and demand for AI skills grew 75 percent faster than overall non-AI listings.

Figure 6: AI related jobs over time



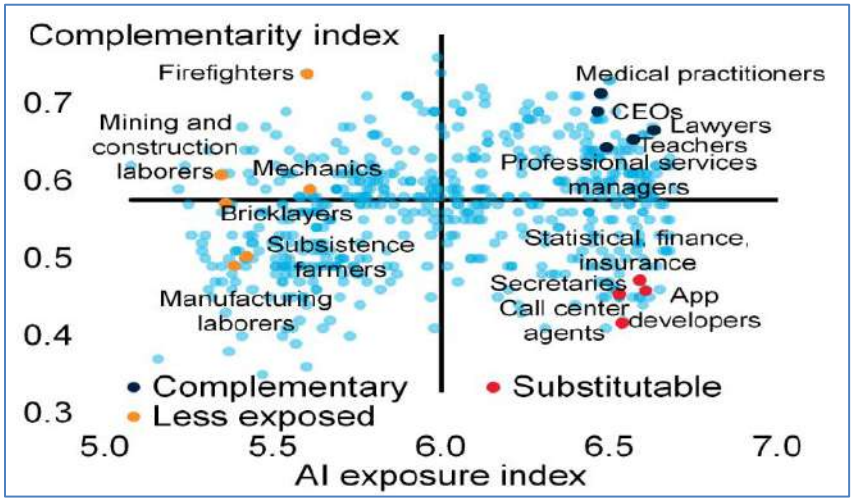
Source- World Bank

- ***Degrees of exposure and complementarity with AI***

Jobs vary in terms of their exposure and complementarity to AI. Exposure is the overlap between the skills required in an occupation and the capabilities of generative AI. Complementarity reflects the degree to which humans are likely to remain essential in certain occupations.

The majority of jobs in South Asia tend to have low exposure to AI. These tend to be manual—farmers, firefighters, or factory workers. High exposure jobs tend to involve knowledge work. Jobs with high exposure and low complementarity include routine, remote jobs such as call center agents, secretaries, or digital application programmers. High complementarity, high exposure jobs instead often involve interpersonal interaction, responsibility, and expert judgment, such as CEOs, doctors, teachers, and lawyers.

Figure 7: AI exposure index

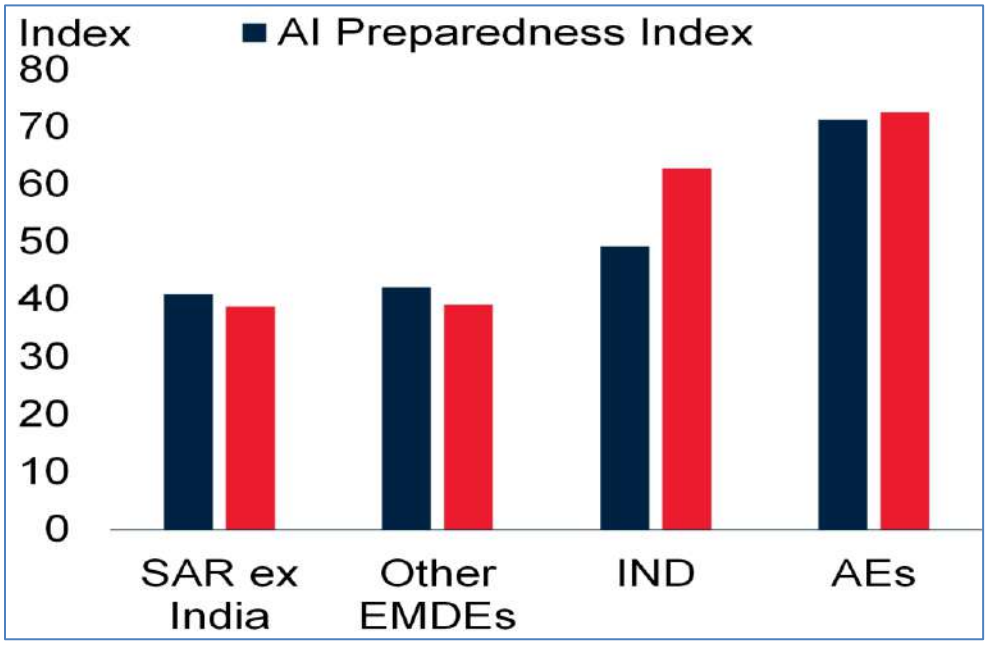


Source- World Bank

Positioning South Asia to benefit from AI

Benefiting from AI requires that countries have the right preconditions in place, however, and this is often not the case, particularly outside India. South Asia scores below the EMDE average in indexes of five key dimensions of AI readiness: government readiness, digital infrastructure, human capital, technological innovation and economic integration, and legal frameworks and regulations. Investing in the technological and institutional framework for a supportive digital economy could help boost growth and avoid job losses from the spread of AI.

Figure 8: AI Preparedness index



Note- *Black- AI Preparedness Index (overall readiness of economy/society)*
Red- Government AI Readiness Index (readiness of government institutions and policies)
Source- World bank

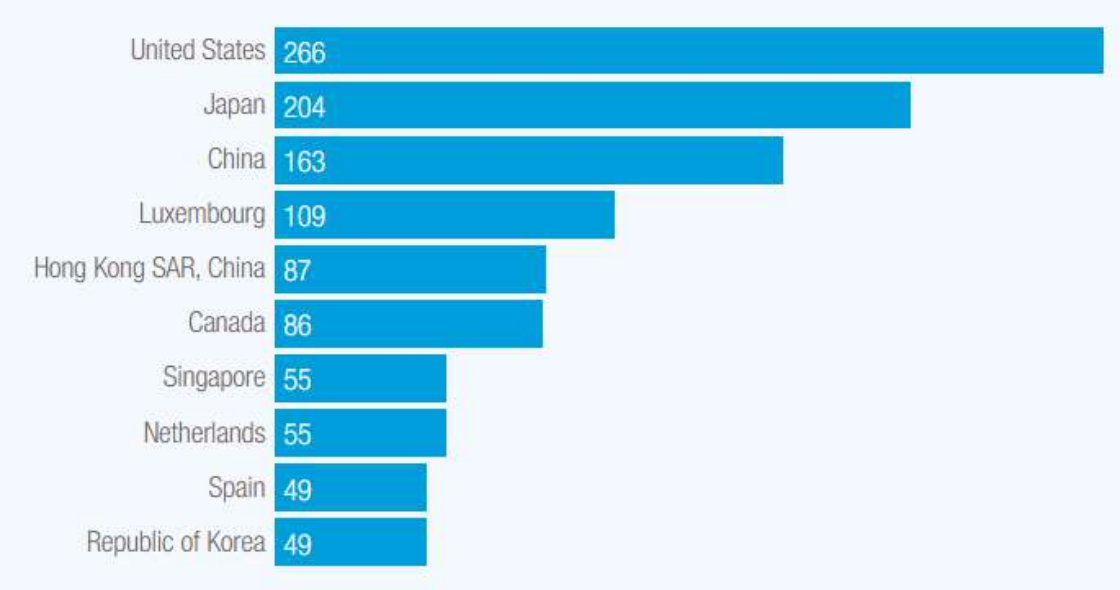
4. Global investment data and changing trends- UNCTAD

Global foreign direct investment (FDI) edged up 4% in 2024 to $1.5 trillion. But the headline figure masks sharp underlying weaknesses and was inflated by volatile financial transactions through several European economies with high levels of "conduit flows."

Top FDI destinations and sources

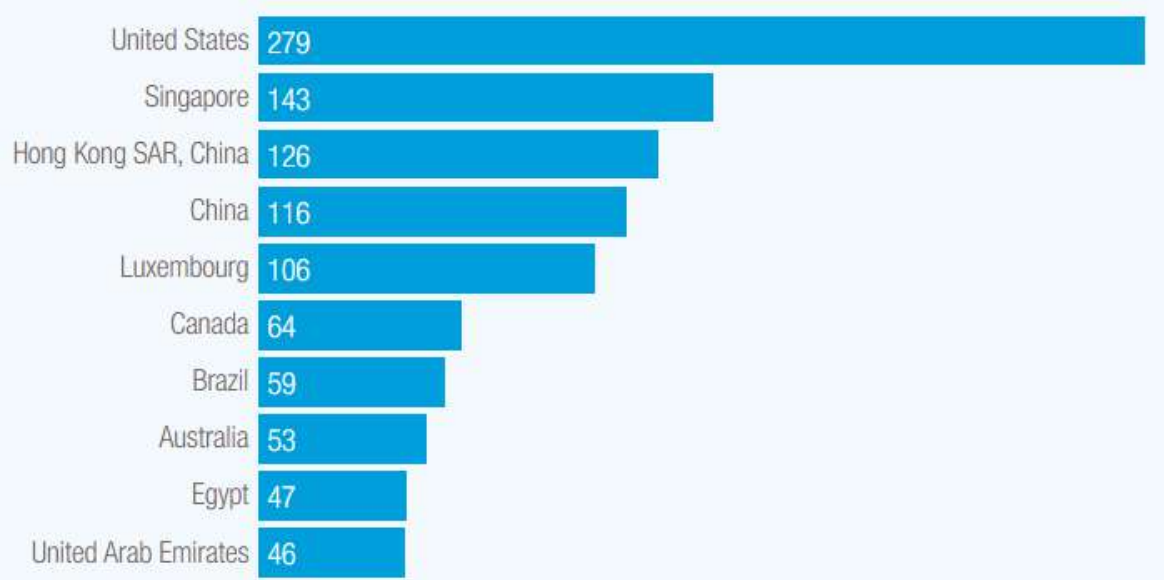
In 2024, the United States remained both the largest source and destination of FDI, underscoring its central role in the global economy. Asia is emerging as a key driver, with five Asian economies among the world's top 10 sources of outward investment – highlighting the region's growing weight in global capital flows.

Figure 9: FDI outflows, top 10 source economies, USD bn



Source- UN

Figure 10: FDI inflows, top 10 destination economies, USD bn



Source- UN

- Developed economies saw FDI fall 22%, with many economies in Europe hit hard: inflows plunged 89% in Germany, while Spain, Italy and France also recorded steep declines.
- North America moved in the opposite direction, up 23% on the back of semiconductor megaprojects in the United States.
- Africa posted record growth of 75%, driven by a mega project in Egypt. Even excluding it, inflows rose 12%, reflecting reforms and stronger investment facilitation across the continent.

- Asia remained the world's top destination, despite a 29% drop in China. ASEAN countries stood out, with inflows up 10% to a record $225 billion.

- In Latin America and the Caribbean, FDI fell 12%, though new projects in Argentina, Brazil and Mexico signalled renewed investor appetite.

- The picture is bleak for vulnerable economies. Least developed countries attracted just $37 billion, only 2% of global flows with capital concentrated in a few nations. Landlocked developing countries saw inflows fall 10%, while small island developing states managed modest 14% growth.

5. Indian Economy

India's economic growth

According to the Reserve Bank of India (RBI)'s Monetary Policy Report released in October, 2025, India's GDP growth is forecasted for FY 2025-26 at 6.8% from earlier estimate of 6.5%. Domestic growth is performing well due to strong consumption, investments, and government spending, with supportive factors like a good monsoon, GST 2.0, better credit flow, and rising capacity utilisation sustaining the positive outlook.

India's real GDP grew 7.8% in Q1 FY 2025-26, up from 7.4% in the previous quarter, the fastest pace in seven quarters, led by strong investment and consumption. Growth for FY 2025-26 is projected at 6.8% (Q1: 7.8%, Q2: 7.0%, Q3: 6.4%, Q4: 6.2%), while FY 2026-27 is estimated at 6.6%, assuming normal monsoon and stable conditions.

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Global Agencies Reaffirm Growth

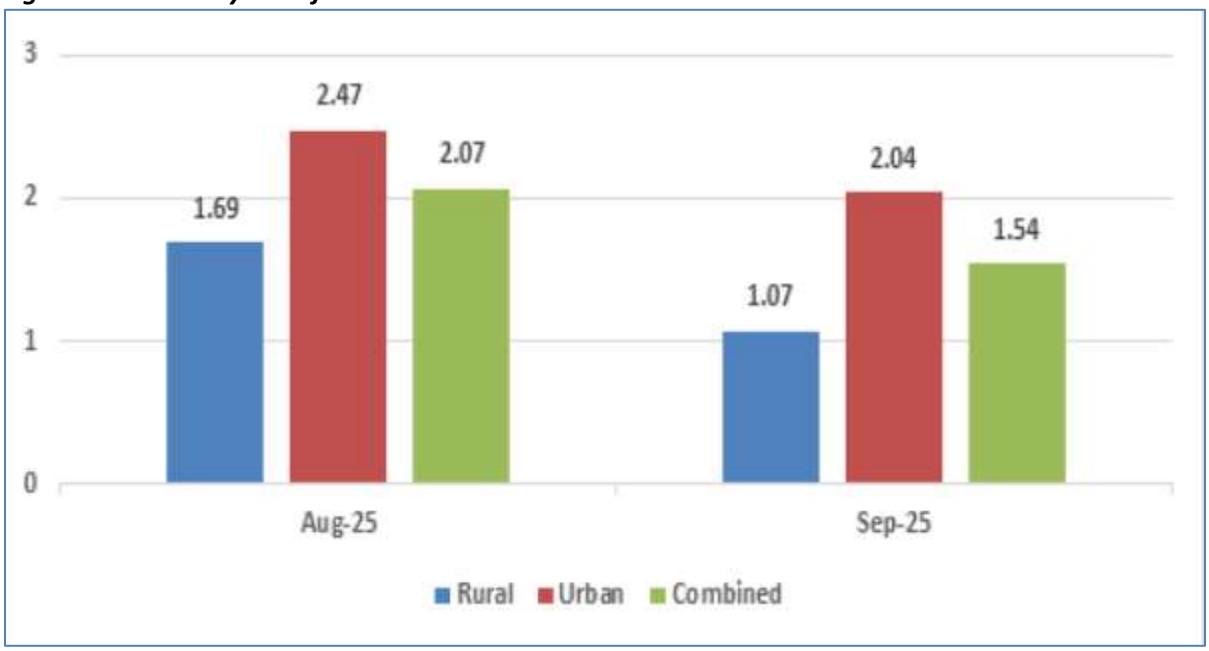
Several global agencies have maintained India's strong economic growth prospects, highlighting the country's resilience amid global uncertainties.

IMF (FY26: 6.4%), Fitch (FY26: 6.9%, FY27: 6.3%), S&P Global (FY26: 6.5%), United Nations (FY26: 6.3%, FY27: 6.4%), CII (FY26: 6.4-6.7%) and OECD (FY26: 6.7%) have noted robust domestic demand, expanding investments, and a stable external sector as key drivers. Strong policy support, structural reforms, and a vibrant services sector are further reinforcing the growth outlook. These projections highlight broad confidence in India's ability to sustain high growth amidst global challenges.

Inflation in India

- Headline inflation-: Year-on-year inflation rate based on All India Consumer Price Index (CPI) for the month of September, 2025 over September, 2024 is 1.54% (Provisional). There is decrease of 53 basis points in headline inflation of September, 2025 in comparison to August, 2025**.** It is the lowest year-on-year inflation after June, 2017.

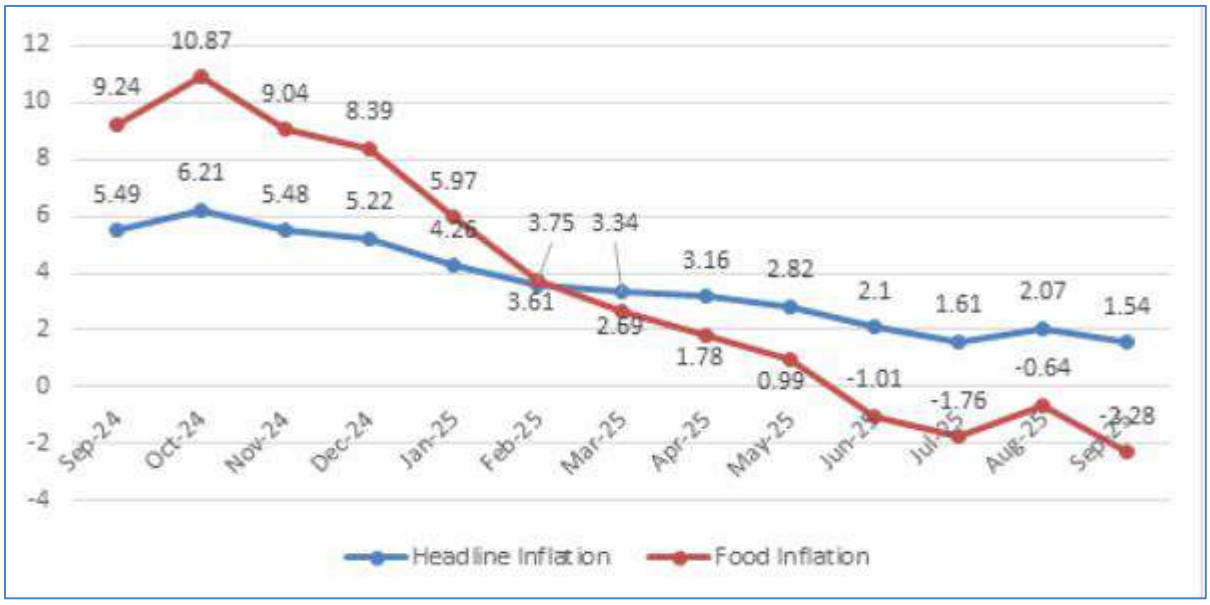
Figure 11: Year on year inflation rate based on CPI



Source- NSO

Food Inflation: Year-on-year inflation rate based on All India Consumer Food Price Index (CFPI) for the month of September, 2025 over September, 2024 is -2.28% (Provisional). Corresponding inflation rates for rural and urban are -2.17% and -2.47%, respectively. All India inflation rates for CPI (General) and CFPI over the last 13 months are shown below. A decrease of 164 basis points is observed in food inflation in September, 2025 in comparison to August, 2025. The food inflation in September, 2025 is the lowest after December, 2018.

Figure 12: All India inflation rates for CPI (General) and CFPI



Source- PIB

- The decline in headline inflation and food inflation during the month of September, 2025 is mainly attributed to favorable base effect and to decline in inflation of Vegetables, Oil and fats, Fruits, Pulses and products, Cereal and products, Egg, Fuel and light etc.

- Rural Inflation: A decrease in headline and food inflation in rural sector observed in September, 2025. The headline inflation is 1.07% (Provisional) in September, 2025 while it was 1.69% in August, 2025. The CFPI based food inflation in rural sector is observed as -2.17% (Provisional) in September, 2025 in comparison to -0.70% in August, 2025.

- Urban Inflation: A decrease from 2.47% in August, 2025 to 2.04% (Provisional) in September, 2025 is observed in headline inflation of urban sector. Decrease is also observed in food inflation from -0.53% in August, 2025 to -2.47% (Provisional) in September, 2025.

- Housing Inflation: Year-on-year Housing inflation rate for the month of September, 2025 is 3.98% (Provisional). Corresponding inflation rate for the month of August, 2025 was 3.09%. The housing index is compiled for urban sector only.

- Education Inflation: Year-on-year Education inflation rate for the month of September, 2025 is 3.44% (Provisional). Corresponding inflation rate for the month of August, 2025 was 3.60%. It is combined education inflation for both rural and urban sector.

- Health Inflation: Year-on-year Health inflation rate for the month of September, 2025 is 4.34% (Provisional). Corresponding inflation rate for the month of August, 2025 was 4.40%. It is combined health inflation for both rural and urban sector.

- Transport & Communication: Year-on-year Transport & communication inflation rate for the month of September, 2025 is 1.82% (Provisional). Corresponding inflation rate for the month of August, 2025 was 1.94%. It is combined inflation rate for both rural and urban sector.

- Fuel & light: Year-on-year Fuel & light inflation rate for the month of September, 2025 is 1.98% (Provisional). Corresponding inflation rate for the month of August, 2025 was 2.32%. It is combined inflation rate for both rural and urban sector.

Further, RBI has lowered its CPI inflation forecast for FY 2025–26 to 2.6%, down from 3.1%.

- While the inflation was earlier projected at 3.8% (Q4 FY 2024-25) and 3.6% (Q1 FY 2025-26), the actual outcomes were lower by 90 bps. The fall was driven by a steep, prolonged 9-month food price decline of 10.5%, the longest in the CPI series.
- Milder summer temperatures further eased seasonal price pressures, keeping realised inflation below expectations in Q1 and Q2 FY 2025-26.
- GST rate rationalisation from September 22, 2025, has simplified taxes and lowered consumer prices, directly impacting around 11.4% of the CPI basket across product groups.

Manufacturing PMI – India

- The HSBC Flash India Composite Output Index, which measures the combined performance of India's manufacturing and services sectors, fell to 59.9 in October from 61.0 in September, marking its lowest level since May this year, according to data released by S&P Global.
- This seasonally adjusted index, which tracks month-on-month changes in the combined output of the two sectors, indicated a slower rate of expansion. However, overall growth remained strong, with the index staying well above the neutral mark.
- A reading above 50 indicates economic expansion, while one below 50 shows contraction in the manufacturing, services, or construction sectors. A reading of exactly 50 signifies no change.
- New orders placed with private sector companies in India expanded sharply in October, though the pace of growth slowed to its weakest in five months. The softer increase was driven by a loss of momentum in the service sector, even as goods producers recorded a slightly faster rise than in September. Service providers noted that competition, as well as floods and landslides, constrained sales.
- In contrast, the HSBC Flash India Manufacturing PMI rose to a two-month high of 58.4 in October from 57.7 in September. This weighted index, based on new orders, output, employment, suppliers' delivery times, and stocks of purchases, signaled a notable improvement in manufacturing conditions

India's external position

India's forex reserves

- India's foreign exchange reserves rose by $4.496 billion, reaching $702.28 billion for the week ending October 17, majorly driven by an increase in the value of gold reserves.
- Foreign currency assets (FCA), the largest part of the reserves, fell by $1.692 billion to $570.411 billion. These assets are influenced by changes in the value of currencies such as the euro, pound, and yen.
- The value of gold reserves rose sharply by $6.181 billion to $108.546 billion. Special Drawing Rights (SDRs) also saw a slight increase of $38 million, reaching $18.722 billion.
- India's reserve position with the International Monetary Fund (IMF) fell by $30 million to $4.602 billion in the reporting week, according to RBI data

India's foreign trade position

- India's total exports (Merchandise and Services combined) for September 2025 is estimated at US$ 67.20 Billion, registering a growth of 0.78 percent vis-à-vis September 2024.

- Total imports (Merchandise and Services combined) for September 2025 are estimated at US$ 83.82 Billion, registering a growth of 11.34 percent vis-à-vis September 2024.

Table 1: Trade during September 2025.

		September 2025 (USD Billion)	September 2024 (USD Billion)
Merchandise	Exports	36.38	34.08
	Imports	68.53	58.74
Services	Exports	30.82	32.60
	Imports	15.29	16.54
Total Trade (Merchandise + Services)	Exports	67.20	66.68
	Imports	83.82	75.28
	Trade Balance	**-16.61**	**-8.60**

Source- Ministry of Commerce & Industry

India's total exports during April-September 2025 is estimated at US$ 413.30 Billion registering a growth of 4.45 percent. Total imports during April-September 2025 is estimated at US$ 472.79 Billion registering a growth of 3.55 percent.

- Exports of Cashew (106.41%), Other Cereals (58.19%), Iron Ore (52.25%), Electronic Goods (50.54%), Rice (33.18%), Meat, Dairy & Poultry Products (32.3%), Marine Products (23.44%), Tea (22.07%), Petroleum Products (15.22%), Mica, Coal & Other Ores, Minerals Including Processed Minerals (9.96%), Fruits & Vegetables (7.36%), Cereal Preparations & Miscellaneous Processed Items (4.12%), Engineering Goods (2.93%), Drugs & Pharmaceuticals (2.56%), Organic & Inorganic Chemicals (1.76%), Ceramic Products & Glassware (0.42%) and Gems & Jewellery (0.4%) record positive growth during September 2025 over the corresponding month of last year.

- Imports of Pulses (-55.11%), Newsprint (-17.74%), Dyeing/Tanning/Colouring Mtrls. (-16.59%), Coal, Coke & Briquettes, Etc. (-16.4%), Iron & Steel (-7.59%), Petroleum, Crude & Products (-5.85%), Pulp And Waste Paper (-5.26%), Wood & Wood Products (-5.2%) and Organic & Inorganic Chemicals (-3.97%) record negative growth during September 2025 over the corresponding month of last year.

- Services exports is estimated to grow by 6.12 percent during April-September 2025* over April-September 2024.

- Top 5 export destinations, in terms of change in value, exhibiting growth in September 2025 vis a vis September 2024 are UAE (24.33%), Spain (150.81%), China (34.18%), Bangladesh (23.06%) and Egypt (67.29%).

- Top 5 export destinations, in terms of change in value, exhibiting growth in April-September 2025 vis a vis April-September 2024 are USA (13.37%), UAE (9.39%), China (21.96%), Spain (40.33%) and Hong Kong (23.53%).

- Top 5 import sources, in terms of change in value, exhibiting growth in September 2025 vis a vis September 2024 are Switzerland (254.57%), UAE (32.83%), China (16.35%), Saudi Arab (18.86%) and Nigeria (896.11%).

- Top 5 import sources, in terms of change in value, exhibiting growth in April-September 2025 vis a vis April-September 2024 are China (11.25%), UAE (13.22%), Ireland (200.09%), USA (9.03%) and Hong Kong (19.99%).

6. India to remain key global wind power export hub through 2030

India is gearing up to anchor the global wind manufacturing landscape by 2030, driven by a strong mix of domestic firms, Western original equipment manufacturers (OEMs), and a growing presence of Chinese players. The International Energy Agency (IEA) projects that India will remain a major export hub for onshore wind components, underscoring the country's expanding role in the global renewable energy supply chain.

According to IEA, since 2023, the share of Western OEMs in the domestic market has declined sharply – from over 50 per cent on average between 2018 and 2022 to below 5 per cent – as their focus shifted to core US and European markets. This has left several gigawatts of manufacturing capacity underutilized and oriented towards exports. At the same time, Indian and Chinese manufacturers are planning expansions.

India has become a significant global hub for wind turbine manufacturing, with over 20GW of capacity serving both domestic and international markets. The country has established a strong supplier network for both major components like nacelles, blades, and towers (Tier 1), and smaller components like gearboxes, generators, and converters (Tier 2). This is attributed to expanding capacities, a skilled workforce, and a focus on global competitiveness, according to Global Wind Energy Council (GWEC).

India stands at the threshold of becoming a global hub for wind manufacturing — where localisation goes beyond producing turbines and supply chain components for the domestic market. The focus is now on building global competitiveness through advanced capabilities, a skilled workforce, and strong local supply chains.

Indian manufacturers account for about 12 per cent of the global nacelle manufacturing capacity, contributing roughly 20GW out of a global total exceeding 165GW. In blade manufacturing, India holds a 10 per cent share, with a capacity of around 16GW from a global base of more than 157GW. For towers, Indian firms contribute 13 per cent, amounting to about 15GW of the global capacity exceeding 115GW. The country's strongest presence is in gearboxes, where it commands 17 per cent of global capacity, equivalent to 29GW out of more than 170GW worldwide, according to GWEC data.

India aims for 500GW of non-fossil energy capacity by 2030, including 100GW from wind (30GW offshore). Coupled with expanding manufacturing and localization, the country is set to meet domestic and export demand while strengthening its role in the global clean energy transition.

7. India to launch a National Critical Mineral Stockpile (NCMS)

India is launching a National Critical Mineral Stockpile (NCMS) to secure a strategic reserve of rare earth elements (REEs) and other critical minerals, driven by concerns over global supply chain disruptions, particularly from China's export restrictions.

This initiative aims to ensure the availability of minerals essential for technologies like electric vehicles, wind turbines, and defense, and includes efforts to boost domestic production through private sector involvement. The government is creating a two-month stockpile for REEs and allocating funds to encourage the domestic production of rare earth magnets.

Under the National Critical Minerals Mission, the government has earmarked Rs. 500 crore to guard against supply disruptions and ensure mineral availability for domestic use.

Details of the National Critical Mineral Stockpile

- **Purpose:** To ensure a steady supply of rare earth elements critical for various technologies and to enhance national security.
- **Strategic Importance:** The stockpile is a response to China's tightening export controls on rare earth magnets, which have disrupted global supply chains.
- **Stockpile Size:** The goal is to create an initial stockpile equivalent to two months of supply.
- **Domestic Production:** The initiative complements other government programs to increase India's domestic production capacity for rare earth magnets and other minerals.
- **Private Sector Involvement:** The government plans to work with the private sector to build and maintain the stockpile and to expand domestic manufacturing capabilities.
- **Funding:** A total of ₹500 crore has been allocated for the NCMS program as part of a larger National Critical Minerals Mission.

- **Related Schemes:** The government is also rolling out a separate ₹7,300 crore production-linked incentive scheme to boost the manufacturing of rare earth permanent magnets.

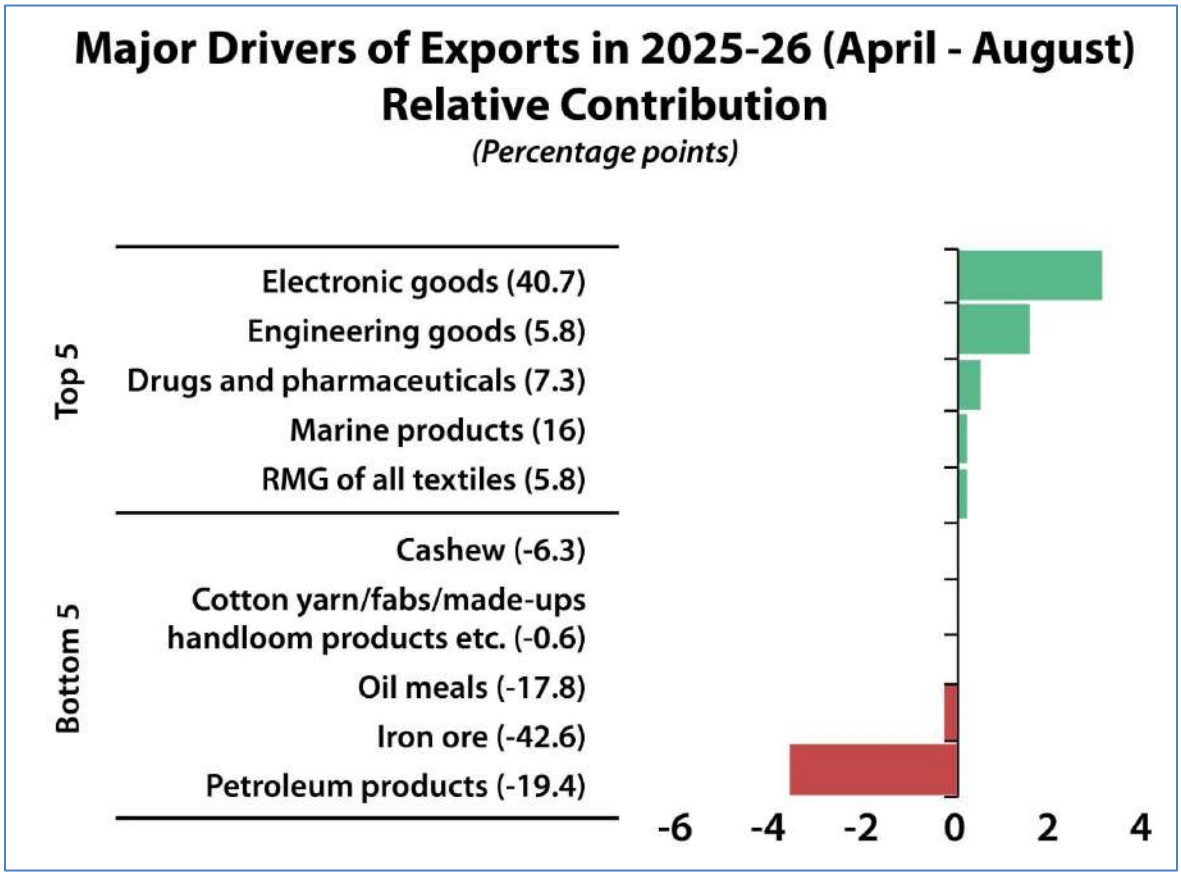
8. India's exports remain steady- RBI

India's current account deficit narrowed to 0.2% of GDP in Q1 FY 2025-26 from 0.9% a year ago, supported by strong services exports and robust remittances of US$35.3 billion, keeping India the world's largest recipient of private remittances.

Amid global trade uncertainty, India's merchandise exports rose 2.5% (April–August 2025) while imports grew 2.1%. Services exports continued double-digit growth, and Q1 FY 2025-26 real exports and imports of goods and services grew 6.3% and 10.9%, respectively.

During April-July 2025, Gross FDI inflows remained strong at US$ 37.7 billion, underscoring India's continued appeal as a preferred investment destination. The net inflows rise to US$10.8 billion, led by Singapore, the US, Mauritius, UAE, and the Netherlands, which together contributed 76% of total FDI.

Figure 13: Major drivers of exports in 2025-26 (April-August) Relative contribution



Source- RBI

Lessons from Economics

Full Employment

Full employment is an economic situation where all workers and laborers who want to work are employed, making it the most efficient employment circumstance possible.

True full employment is probably unachievable because it is a situation in which anyone who is willing and able to work can find a job, and unemployment is zero. It is a theoretical goal for economic policymakers to aim for rather than an observed state of an economy. If there is any unemployment, then the economy is not producing at full potential, and some improvement in economic efficiency may be possible. However, because it may not be practically possible to eliminate all unemployment from all sources, full employment may not actually be attainable.

Full employment is not the same as zero unemployment because there are different types of unemployment, and some are unavoidable or even necessary for a functioning labor market.

- **Frictional unemployment**- At any given time, jobs are being created and destroyed as industries evolve, and the transition from old jobs to new is not seamless. For example, frictional unemployment occurs because workers who lose their jobs or quit typically do not accept the first new job for which they qualify. Unless they are facing extreme pressure to replace lost income, most people take the time to find a job that fits their skills well. Because of this lag, some percentage of the workforce is between jobs at any given time and classified as unemployed.

- **Structural unemployment** - Persistent unemployment also arises from mismatch between the supply of workers and the demand for labor at a given wage, which is known as structural unemployment. In a fully flexible market, wages would adjust to the point where the number of people seeking work equaled the number of positions employers were willing to provide at that wage. Wages can be set above this level for a variety of reasons, however, such as minimum wage requirements or because employers choose to set higher wages in order to get better productivity from their workers. As a result, the supply of labor can exceed the demand for it, and structural unemployment arises.

- **Cyclical unemployment**- This unemployment rises when an economy is in a recession and falls when an economy is growing. Therefore, for an economy to be at full employment, it cannot be in a recession that is causing cyclical unemployment.

Benefits of Full Employment

Full employment can provide numerous benefits to both individuals and the overall social and economic balance of a country. As employment increases toward full employment, benefits include:

- Reduced poverty if all workers have access to work at or above the prevailing rate of compensation
- Improved wages and working conditions, as employers must compete for workers
- Preventing the unemployed from becoming demotivated or losing valuable skills
- GDP growth as workers are able to afford goods and services
- Reduction in government spending on unemployment benefits and welfare programs

Unemployment can rise above this level due to shocks in the economy, such as the housing market collapse that occurred in 2007-2008. It can also temporarily fall below this level if the economy is operating above its efficient capacity, resulting in rising prices and wages.

Oil Market

Crude oil price – Monthly Review

The oil market has been in surplus since the start of the year, but stock builds have so far been concentrated in crude in China and gas liquids in the United States. By September, however, a surge in Middle East production, coinciding with seasonally lower regional crude demand, boosted exports to two and a half-year high. This, combined with robust flows from the Americas, swelled oil on water in September by a massive 102 mb, equivalent to 3.4 mb/d, the largest increase since the Covid-19 pandemic. Brent crude oil futures rose by an average $0.30/bbl to $67.60/bbl m-o-m in September. But by early October, the wave of tankers at sea and the announcement of new trade measures pushed prices down by $4/bbl to $64/bbl.

Global oil supply in September was up by a massive 5.6 mb/d compared with a year ago. OPEC+ accounted for 3.1 mb/d of the increase, as the Group of 8 unwound 2 mb/d of production cuts, and as Libya, Venezuela and Nigeria all posted strong gains. Based on their latest agreement, OPEC+ is now on track to lift output by 1.4 mb/d on average this year and by a further 1.2 mb/d in 2026. Non-OPEC+ producers are set to add 1.6 mb/d and 1.2 mb/d, respectively, over the same timeframe, with the United States, Brazil, Canada, Guyana and Argentina leading growth. Risks to the forecast remain, with sanctions imposed on Russia and Iran compounding geopolitical concerns. Persistent attacks on Russian energy infrastructure have cut Russian crude processing by an estimated 500 kb/d, resulting in domestic fuel shortages and lower product exports. The drop in Russian middle distillate exports reverberated globally as regular buyers scrambled to secure alternative supplies, bidding up diesel and jet fuel cracks in the process. Light sweet crude refining margins hit two-year highs in Europe and 18-month highs on the US Gulf Coast and in Singapore in September.

Hedge funds and other money managers maintained a bearish stance on crude oil futures in September, with combined NYMEX and ICE WTI positions remaining net short for most of the month. Speculative trading was volatile, amplifying price fluctuations. Speculators increased their short positions in ICE Brent to a four-month high while reducing their longs, amid concerns about an uncertain economic outlook, as well as concerns about the oil supply and demand outlook. However, money managers turned bullish on refined products, raising ICE gasoil net long positions by 33.4% over September to their highest level since March 2022.

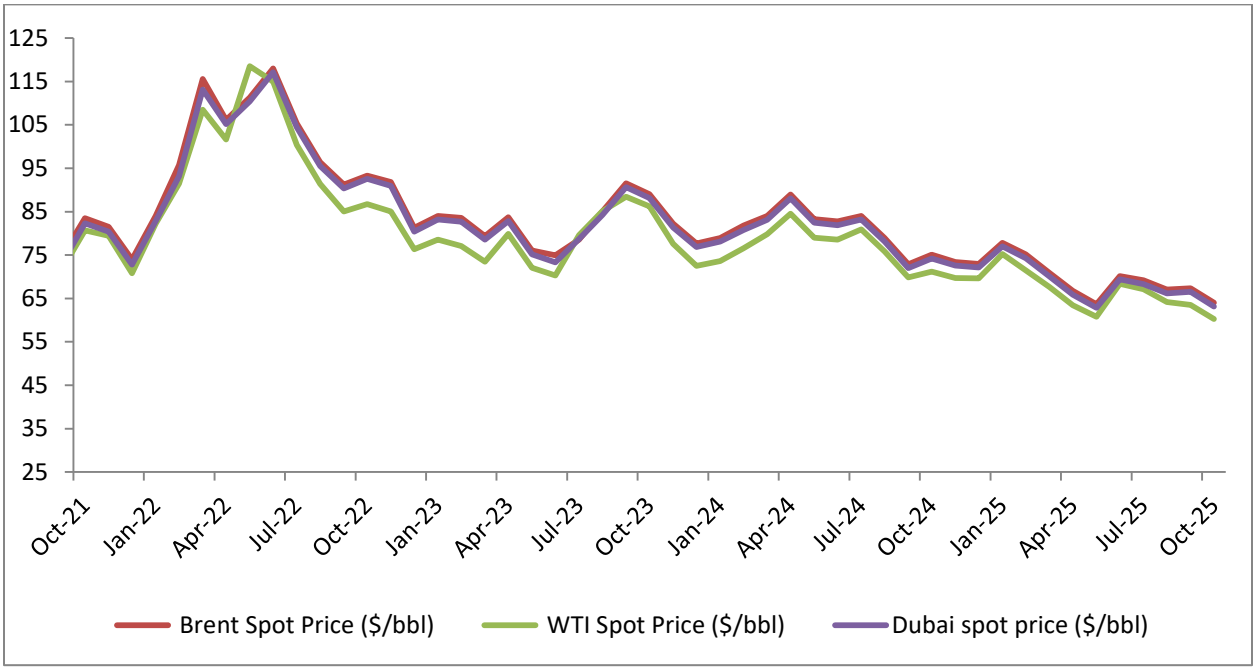
Crude spot prices were mixed in September. Light sweet benchmarks edged lower m-o-m, while medium sour grades posted gains. North Sea Dated and WTI came under pressure from softer refinery demand amid the autumn maintenance season in the US and Europe, and higher WTI availability from the USGC. Additional downward pressure stemmed from selling activities in the futures market. However, losses were partly offset by more substantial refining margins, particularly for middle distillates, and stronger buying interest from Asia-Pacific refiners. Improved west-to-east arbitrage economics also supported demand for Atlantic Basin crudes.

In September, OPEC Reference Basket (ORB) value increased by 66¢, m-o-m, to average $70.39/b. The ICE Brent front-month contract increased in September by 32¢, m-o-m, to average $67.58/b, while the

NYMEX WTI front-month contract dropped by 49¢, m-o-m, to average $63.53/b. The GME Oman front-month contract increased in September by 81¢, m-o-m, to settle at $70.04/b.

Brent crude ranged an average to $64.03 a barrel and WTI ranged to $60.26 per barrel in the month of September 2025.

Figure 14: Benchmark price of Brent, WTI and Dubai crude



Source - World Bank

- Brent crude price averaged $64.03 per bbl in October 2025, down by 4.9% on a month on month (MoM) and by 14.7% on year on year (YoY) basis, respectively.
- WTI crude price averaged $60.26 per bbl in October 2025, down by 5.1% on a month on month (MoM) and by 15.3% on year on year (YoY) basis, respectively.
- Dubai crude price averaged $63.17 per bbl in October 2025, down by 5.0% on a month on month (MoM) and by 14.9% on year on year (YoY) basis, respectively.

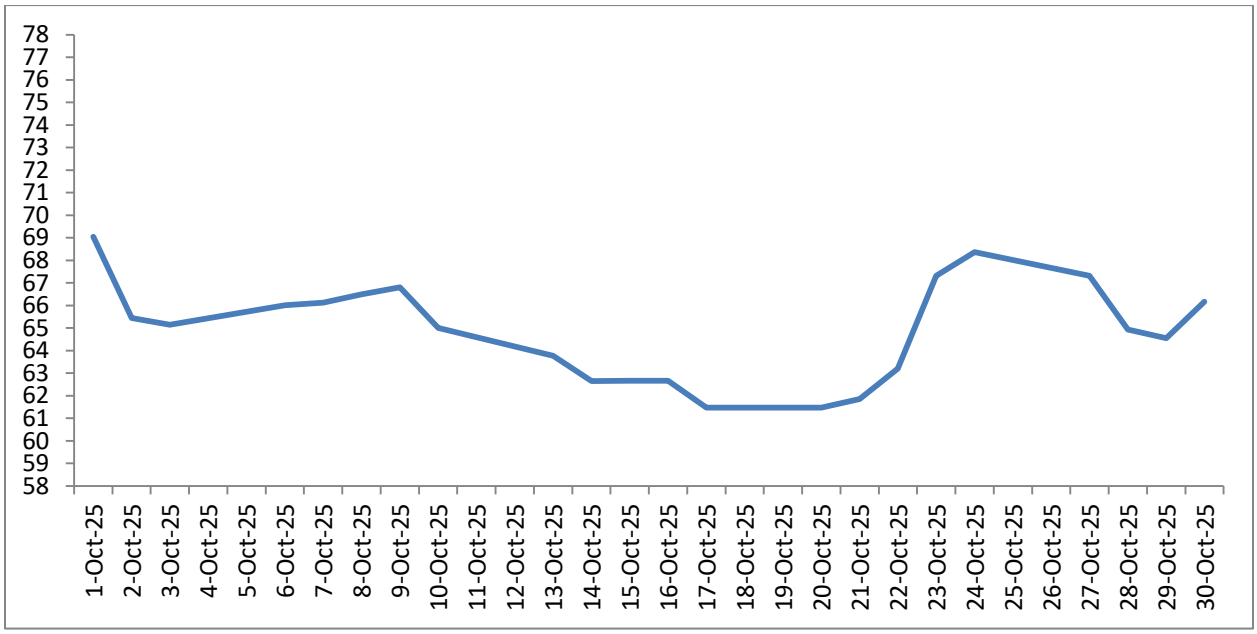
Table 2: Crude oil price in October, 2025

Crude oil	Price ($/bbl)	MoM (%) change	YoY (%) change
Brent	64.03	-4.9%	-14.7%
WTI	60.26	-5.1%	-15.3%
Dubai	63.17	-5.0%	-14.9%

Source - World Bank

Indian Basket Crude oil price

Figure 15: Indian crude oil basket price in $ per bbl



Source - PPAC

- Indian crude basket price averaged $64.98 per barrel in October 2025, down by 6.7% on Month on Month (M-o-M) and by 13.9% on a year on year (Y-o-Y) basis, respectively.

Oil production situation

- Non-DoC liquids production (i.e. liquids supply from countries not participating in the Declaration of Cooperation) is forecast to grow by about 0.8 mb/d, y-o-y, in 2025.

- The main growth drivers are expected to be the US, Brazil, Canada, and Argentina. The non-DoC liquids production growth forecast for 2026 remains at 0.6 mb/d, y-o-y, with Brazil, Canada, the US, and Argentina once again as the main growth drivers. Natural gas liquids (NGLs) and non-conventional liquids from countries participating in the DoC are forecast to grow by 0.1 mb/d, y-o-y, in 2025, to average 8.6 mb/d, followed by a similar increase of about 0.1 mb/d, y-o-y, in 2026, to average 8.8 mb/d. Crude oil production by countries participating in the DoC increased by 630 tb/d in September, m-o-m, to average about 43.05 mb/d, according to available secondary sources.

Table 3: Non-DoC liquids production in 2025, mb/d

Non-OPEC liquids production	2024	1Q25	2Q25	3Q25	4Q25	2025
Americas	27.72	28.04	28.38	28.28	27.86	28.14
of which US	*21.76*	*21.81*	*22.46*	*22.27*	*21.73*	*22.07*
Europe	3.53	3.59	3.55	3.59	3.61	3.59
Asia Pacific	0.44	0.40	0.43	0.43	0.42	0.42
Total OECD	**31.69**	**32.03**	**32.36**	**32.31**	**31.90**	**32.15**
China	4.56	4.69	4.66	4.56	4.54	4.61
India	0.81	0.83	0.82	0.82	0.80	0.82
Other Asia	1.60	1.62	1.63	1.61	1.57	1.61
Latin America	7.23	7.42	7.60	7.49	7.63	7.53
Middle East	1.99	2.01	2.01	2.00	2.00	2.01
Africa	2.33	2.30	2.24	2.30	2.28	2.28
Other Eurasia	0.37	0.36	0.35	0.36	0.36	0.36
Other Europe	0.10	0.09	0.10	0.09	0.10	0.10
Total Non-OECD	**18.99**	**19.32**	**19.41**	**19.24**	**19.30**	**19.32**
Total Non-DoC production	50.68	51.35	51.77	51.55	51.19	51.47
Processing gains	2.52	2.54	2.54	2.54	2.54	2.54
Total Non-DoC liquids production	**53.20**	**53.89**	**54.31**	**54.09**	**53.73**	**54.01**

Source - OPEC monthly report, October 2025

- From the above table, it can be inferred, that the total non-DoC liquids production is expected to reach 54.01 mb/d by 2025.
- The non-DoC liquids supply (i.e. liquids supply from countries not participating in the Declaration of Cooperation) is forecasted to grow by about 0.8 mb/d, y-o-y in 2025.

Oil demand situation

- The global oil demand growth forecast for 2025 remains at about 1.3 mb/d, y-o-y, unchanged from last month's assessment. In the OECD, oil demand is forecast to grow by about 0.1 mb/d in 2025, while oil demand in the non-OECD is forecast to grow by about 1.2 mb/d.
- In 2026, global oil demand is forecast to grow by about 1.4 mb/d, y-o-y, also unchanged from last month's assessment. The OECD is projected to grow by about 0.2 mb/d, y-o-y, while the non-OECD is expected to expand by about 1.2 mb/d, y-o-y.

Table 4: World Oil demand, mb/d

	2024	1Q25	2Q25	3Q25	4Q25	2025	Growth	%
Total OECD	**25.18**	**24.94**	**25.21**	**25.64**	**25.57**	**25.34**	**0.16**	**0.64**
~ of which US	*20.58*	*20.42*	*20.63*	*20.91*	*20.99*	*20.74*	*0.16*	*0.78*
Total Non-OECD	**58.00**	**59.11**	**58.49**	**58.93**	**60.13**	**59.17**	**1.17**	**2.02**
~ of which India	*5.55*	*5.70*	*5.61*	*5.38*	*5.91*	*5.65*	*0.10*	*1.80*
~ of which China	16.65	16.86	16.47	16.97	17.04	16.84	0.18	1.14
Total world	**103.84**	**104.29**	**104.15**	**105.52**	**106.57**	**105.14**	**1.30**	**1.25**

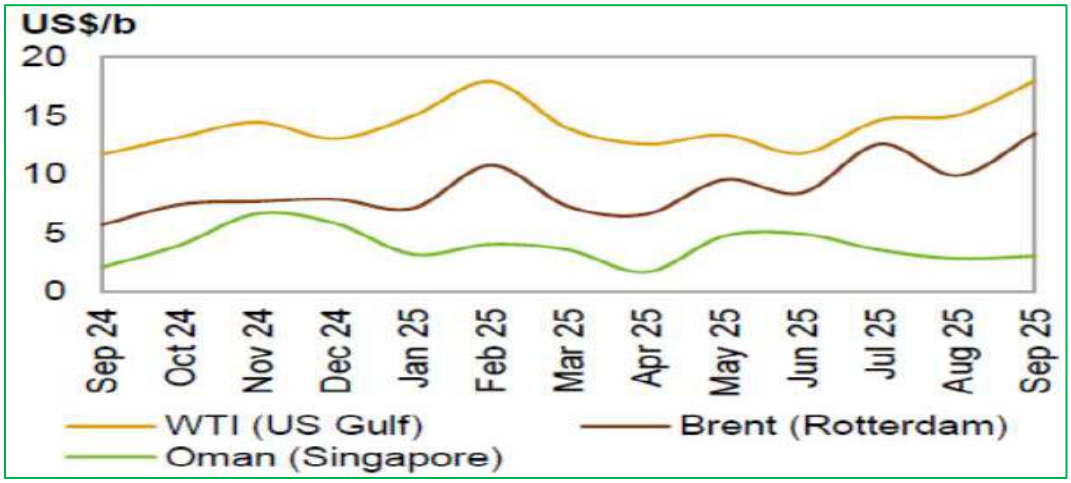
Source - OPEC monthly report, October 2025

Global petroleum product prices

USGC refining margins against WTI extended their upward trend to reach an 18-month high in September. Middle distillate showed the largest m-o-m crack spread gain, as the supply shortage witnessed in Europe, due to lower output from Russia, boosted outflows from the US, supporting product markets. Furthermore, a late summer pickup in gasoline requirements, combined with reduced refinery output, led to a continuous decline in USGC gasoline stocks. Moreover, gasoline availability was reported to have decreased on the US East Coast over the month, as more European barrels were redirected to West Africa. According to preliminary September data, USGC refinery intake decreased 420 tb/d, m-o-m, to average 16.92 mb/d. USGC margins against WTI averaged $18.02/b, up by $2.95, m-o-m, and up by $6.28, y-o-y.

Rotterdam refinery margins against Brent showed a strong rebound from the previous month's decline, reaching an 18-month high. This improvement was supported by the strength associated with all key products across the barrel, except for residual fuel. The most significant positive contributions came from transport fuels, amid a late-summer surge in transport fuel requirements and a decline in refinery output. Diesel was the top performer, as lower product output from Russia and reduced refinery runs in the region, due to heavy turnarounds, supported European product crack spreads. Recent reports indicate a surge in gasoil flows from India to Europe, which could lead to a downward correction in gasoil margins in the near term.

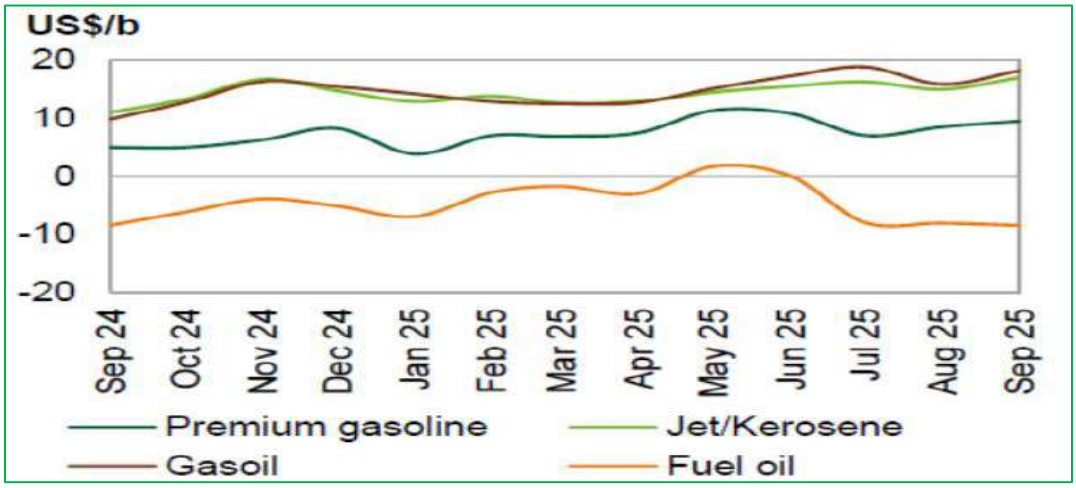
Figure 16: Refining Margins ($/bbl)



Source - Argus and OPEC

The Southeast Asia gasoline 92 crack spread against Dubai rose for the second consecutive month in September. Healthy regional demand, improving export economics and suppressed Chinese gasoline exports provided support. The margin averaged $9.51/b in September, up 98¢, m-o-m, and $4.53, y-o-y.

Figure 17: Singapore crack Spreads vs. Dubai ($/bbl)



Source - Argus and OPEC

The Singapore gasoil crack spread rose, and similarly to what was observed in other regions, gasoil was the top performer in Southeast Asia, maintaining its position as the top margin driver in September, closely followed by jet/kerosene. The middle distillate balance contraction in the northern hemisphere likely contributed to the upside, supporting East-West gasoil deliveries. The Singapore gasoil crack spread against Dubai averaged $18.23/b, up $2.29, m-o-m, and $8.33, y-o-y.

Table 5: Singapore FOB, refined product prices ($/bbl) in September 2025

Singapore product prices	Price ($/b)	MoM (%) change	YoY (%) change
Naphtha	65.17	3.9%	-7.3%
Premium gasoline (unleaded 95)	81.47	1.7%	-1.7%
Regular gasoline (unleaded 92)	79.52	2.0%	1.5%
Jet/Kerosene	87.05	3.1%	3.1%
Gasoil/Diesel (50 ppm)	88.77	3.1%	5.5%
Fuel oil (180 cst 2.0% S)	87.31	3.4%	5.1%
Fuel oil (380 cst 3.5% S)	61.54	0.3%	-5.2%

Source - OPEC

Petroleum products consumption in India

Monthly Review:

- Overall consumption of all petroleum products in September 2025 with a volume of 18.70 MMT registered growth of 7.40% on volume of 17.41 MMT in September 2024.
- MS (Petrol) consumption during the month of September 2025 with a volume of 3.40 MMT recorded a growth of 8.01% on volume of 3.15 MMT in September 2024.
- HSD (Diesel) consumption during the month of September 2025 with a volume of 6.79 MMT recorded growth of 6.67% on volume of 6.37 MMT in the month of September 2024.
- LPG consumption during the month of September 2025 with a volume of 2.80 MMT registered a growth of 7.40% over the volume of 2.61 MMT in the month of September 2024.
- ATF consumption during September 2025 with a volume of 0.720 MMT registered de-growth of 0.83% over the volume of 0.726 MMT in September 2024.
- Bitumen consumption during September 2025 with a volume of 0.560 MMT registered growth of 34.53% over volume of 0.416 MMT in the month of September 2024.
- Kerosene consumption registered growth of 0.63% during the month of September 2025 as compared to September 2024.

Table 6: Petroleum products consumption in India, September 2025 and Year till Date (YTD)

	Monthly			Year till Date	
Consumption of Petroleum Products (P)	**Consumption in '000 MT**	**MoM (%) change**	**YoY (%) change**	**Consumption in '000 MT**	**YoY (%) change**
LPG	2,803	-0.2%	7.4%	16,200	7.82%
Naphtha	932	-14.9%	-8.4%	5,854	-12.86%
MS	3,401	-4.1%	8.0%	21,191	6.76%
ATF	720	1.3%	-0.8%	4,418	0.93%
SKO	37	6.7%	0.6%	212	3.66%
HSD	6,794	3.3%	6.7%	45,692	2.95%
LDO	90	11.6%	26.2%	509	30.48%
Lubricants & Greases	397	6.9%	3.3%	2,317	-0.48%
FO & LSHS	533	2.7%	-4.1%	3,036	-7.21%
Bitumen	560	31.9%	34.5%	3,829	5.48%
Petroleum coke	1,587	-5.4%	30.9%	9,844	-5.03%
Others	843	0.6%	-2.1%	5,192	-20.72%
TOTAL	**18,697**	**0.1%**	**7.4%**	**1,18,295**	**1.03%**

Source- PPAC

Year Till Date: 1st April 2025 – 31st March 2026

Natural Gas Market

Natural Gas Price – Monthly Review

- Natural Gas spot prices at the US Henry Hub benchmark averaged $2.97 per million British thermal units (MMBtu) in September 2025. Henry Hub's natural gas prices rebounded in September by 2.1%, m-o-m. Prices rose due to a combination of higher end-of-summer demand and pipeline maintenance in some regions. However, stable LNG exports coupled with elevated stocks limited upside support. According to data from the US Energy Information Administration (EIA), average weekly natural gas storage increased by 8.1%, m-o-m, in September. Prices were up by ~30.3%, y-o-y.

- Natural gas spot price at the Title Transfer Facility (TTF) in the Netherlands in Europe traded at an average of $11.12 per MMBtu. The average Title Transfer Facility (TTF) declined for a third consecutive month, falling by 0.3%, m-o-m. Stable LNG supply and high storage levels in the region offset supply risk concerns and geopolitical risk premiums. According to data from Gas Infrastructure Europe, EU storage levels rose to 82.5% as of the end of September, up from 77.7% in July, representing a 4.8 percentage point increase. Prices were down by 5.6%, y-o-y.

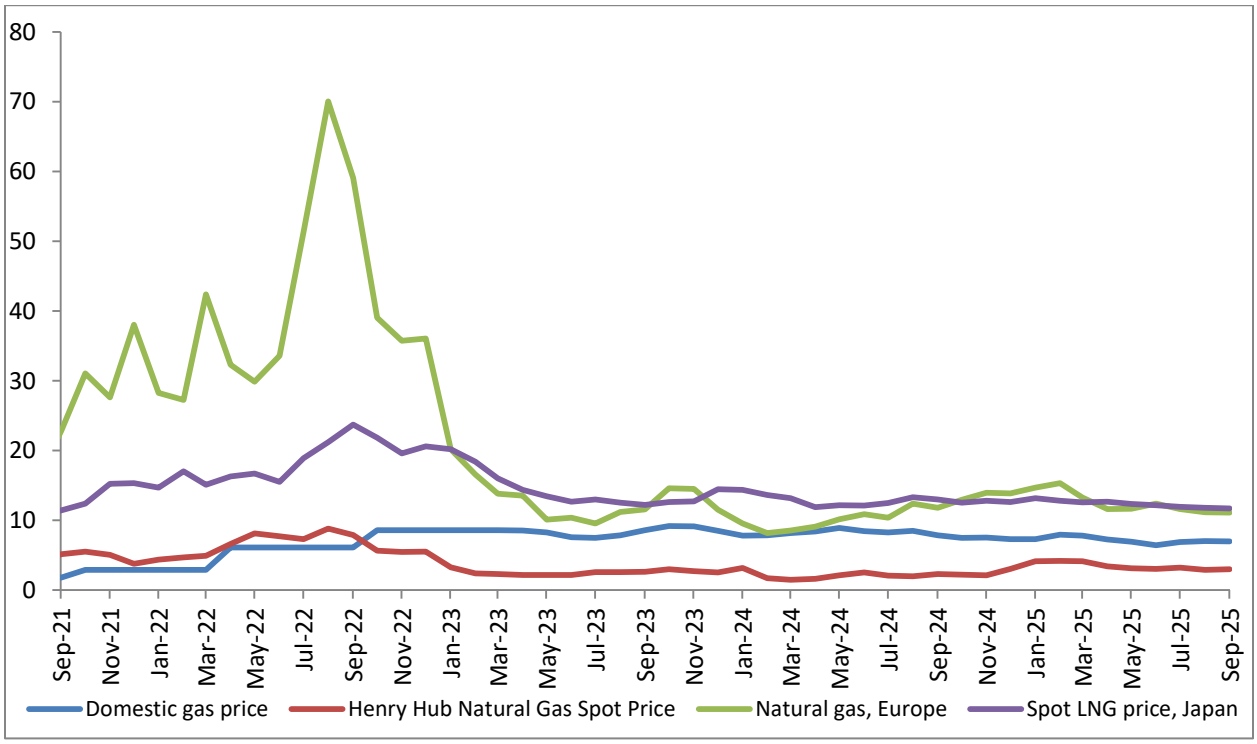
- Japan Liquefied Natural Gas Import Price averaged at $11.72 per MMBtu for September 2025. There is a change of -0.6% from last month and -9.6% from one year ago.

- The Union Cabinet has approved a new formula for pricing of natural gas and imposed cap or ceiling price on the same. Natural gas produced from legacy or old fields, known as APM gas, will now be indexed to crude oil prices. From April 1 2023, APM gas will be priced at 10% of the price of basket of crude oil that India imports. The rate such arrived at however will be capped at US$ 6.50 per MMBTU. The price such arrived at will also have a floor of US$4 per MMBTU. As per notification dated 31st March 2025, the APM gas price has been raised to US$ 6.75 per MMBTU, up from US$ 6.50 per MMBTU.

- Further, in accordance with MoP&NG, Govt. of India, pricing freedom for gas being produced from discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas, the gas price ceiling for the period 1st April, 2023 - 30th September, 2023 was notified as US$ 12.12/MMBTU on Gross Calorific Value (GCV) basis as per notification dated 31st March, 2023. As per notification dated 30th September 2023, Gas price ceiling was further revised for the period 1st October, 2023 – 31st March, 2024 was notified as US$9.96/MMBTU on Gross Calorific Value (GCV) basis. Prices were further revised for the period 1st April, 2024 – 30th September, 2024 was notified as US$9.87/MMBTU on Gross Calorific Value (GCV) basis as per notification dated 31st March 2024. Accordingly, for the period 1st October, 2024 – 31st March, 2025 gas price ceiling was further revised as US$10.16/MMBTU on Gross Calorific Value (GCV) basis as per notification dated 30th September 2024. Now, as per notification dated 31st March 2025, Gas price ceiling was further revised for the period 1st April, 2025 – 30th September, 2025 was notified as US$10.04/MMBTU on Gross Calorific Value (GCV) basis. Prices were further revised

for the period 1st October, 2025 – 31st March, 2026 was notified as US$9.72/MMBTU on Gross Calorific Value (GCV) basis as per notification dated 30th September 2025.

Figure 18: Global natural gas price trends ($/mmbtu)



Source - EIA, World Bank

Table 7: Gas price, September 2025

Natural Gas	Price ($/MMBTU)	MoM (%) change	YoY (%) change
India, Domestic gas price (Oct'25)	6.96	-0.43%	-6.95%
India, Gas price ceiling – difficult areas (Oct-Nov'25)	9.72	-3.19%	-4.33%
GIXI (Gas index of India) price*	11.8	3%	-9%
Henry Hub	2.97	2.1%	30.3%
Natural Gas, Europe	11.12	-0.3%	-5.6%
Liquefied Natural Gas, Japan	11.72	-0.6%	-9.6%

Source - EIA, PPAC, World Bank, IGX

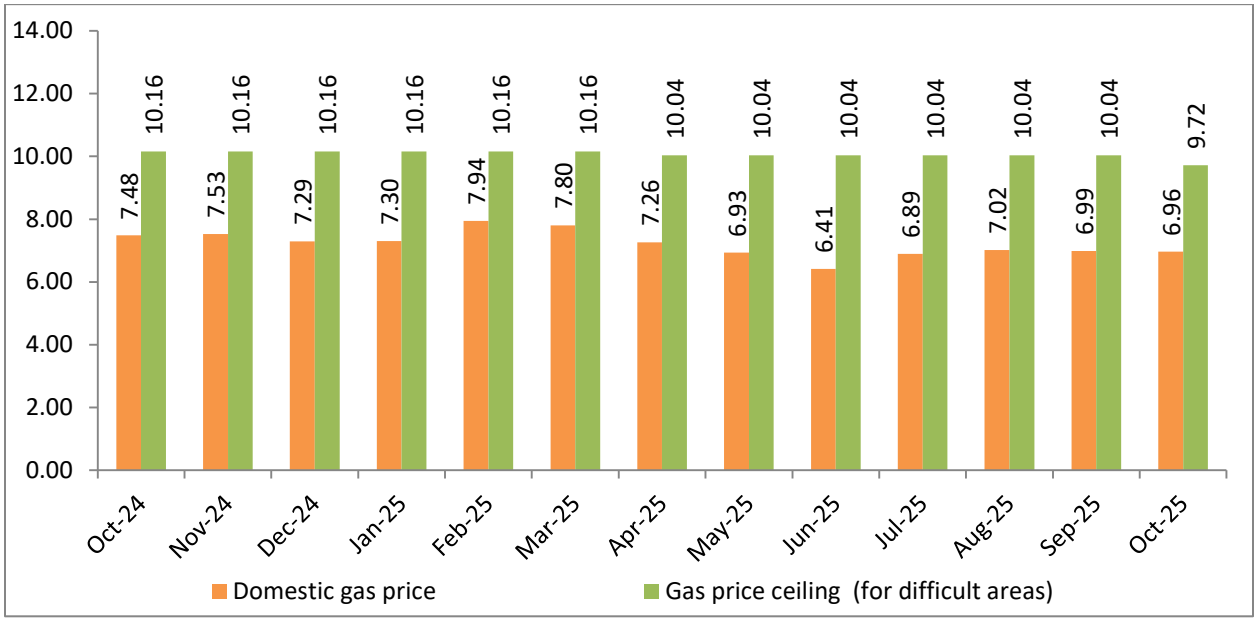
**Prices are weighted average prices (excluding ceiling price gas)*

Table 8: Gas price, GCV Basis

Period	Domestic Gas calculated price in US$/MMBTU	Gas price ceiling – difficult areas price in US$/MMBTU
1-31 May 2023	8.27	12.12
1-30 June 2023	7.58	12.12
1-31 July 2023	7.48	12.12
1-31 August 2023	7.85	12.12
1-30 September 2023	8.60	12.12
1-31 October 2023	9.20	9.96
1-30 November 2023	9.12	9.96
1-31 December 2023	8.47	9.96
1-31 January 2024	7.82	9.96
1-29 February 2024	7.85	9.96
1-31 March 2024	8.17	9.96
1-30 April 2024	8.38	9.87
1-31 May 2024	8.90	9.87
1-30 June 2024	8.44	9.87
1-31 July 2024	8.24	9.87
1-31 August 2024	8.51	9.87
1-30 September 2024	7.85	9.87
1-31 October 2024	7.48	10.16
1-30 November 2024	7.53	10.16
1-31 December 2024	7.29	10.16
1-31 January 2025	7.30	10.16
1-28 February 2025	7.94	10.16
1-31 March 2025	7.80	10.16
1-30 April 2025	7.26	10.04
1-31 May 2025	6.93	10.04
1-30 June 2025	6.41	10.04
1-31 July 2025	6.89	10.04
1-31 August 2025	7.02	10.04
1-30 September 2025	6.99	10.04
1-31 October 2025	6.96	9.72

Source – PPAC

Figure 19: Domestic natural gas price October'24–25 ($/mmbtu)



Source - PPAC

Indian Gas Market

- Gross production of natural gas for the month of September 2025 (P) was 2860 MMSCM which was lower by 3.9% compared with the corresponding month of the previous year.
- Total Import of LNG (Provisional) during the month of September 2025 (P) was 2819 MMSCM (higher by 1.2% over the corresponding month of the previous year).
- Natural Gas available for Sale during September 2025 (P) was 5207 MMSCM (P) (decrease of 1.1% over the corresponding month of the previous year).
- Total Gas Consumption Availability during September 2025 (P) was 5642 MMSCM (Provisional). Major consumers were Fertilizer (28%), City Gas Distribution (CGD) (24%), Power (13%), Refinery (8%) and Petrochemicals (6%).

Monthly Report on Natural gas production, imports, and consumption – September 2025

1. Domestic Natural Gas Gross Production:

Domestic natural gas gross production for the month of September 2025 was 2860 MMSCM (decrease of 3.9% over the corresponding month of the previous year).

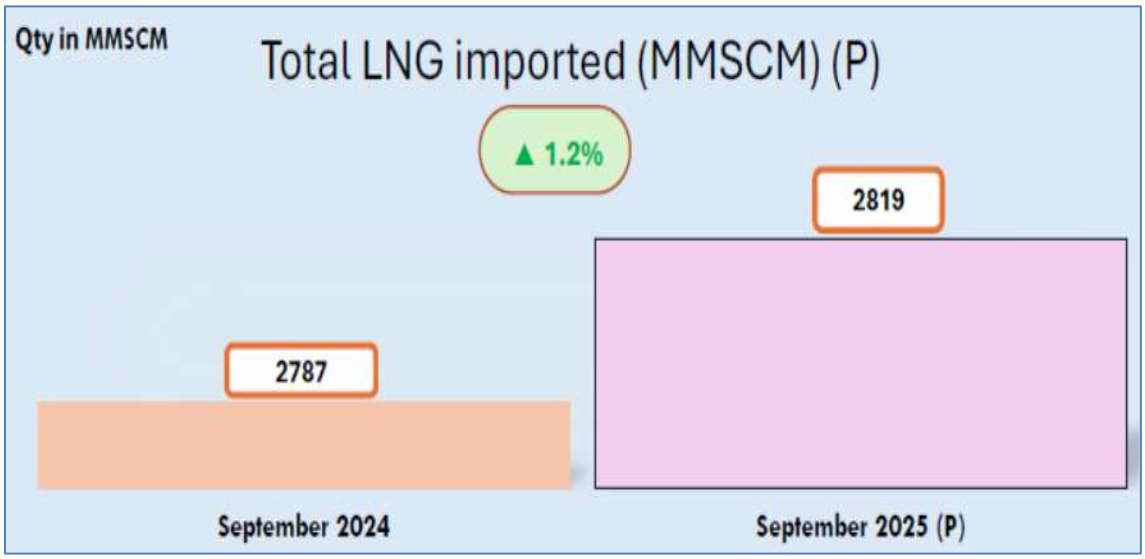
Figure 20: Domestic natural gas Gross production (Qty in MMSCM)

Source - PPAC

2. LNG imports:

Total import of LNG (provisional) during the month of September 2025 was 2819 MMSCM (P) (higher by 1.2% over the corresponding month of the previous year).

Figure 21: LNG imports (Qty in MMSCM)

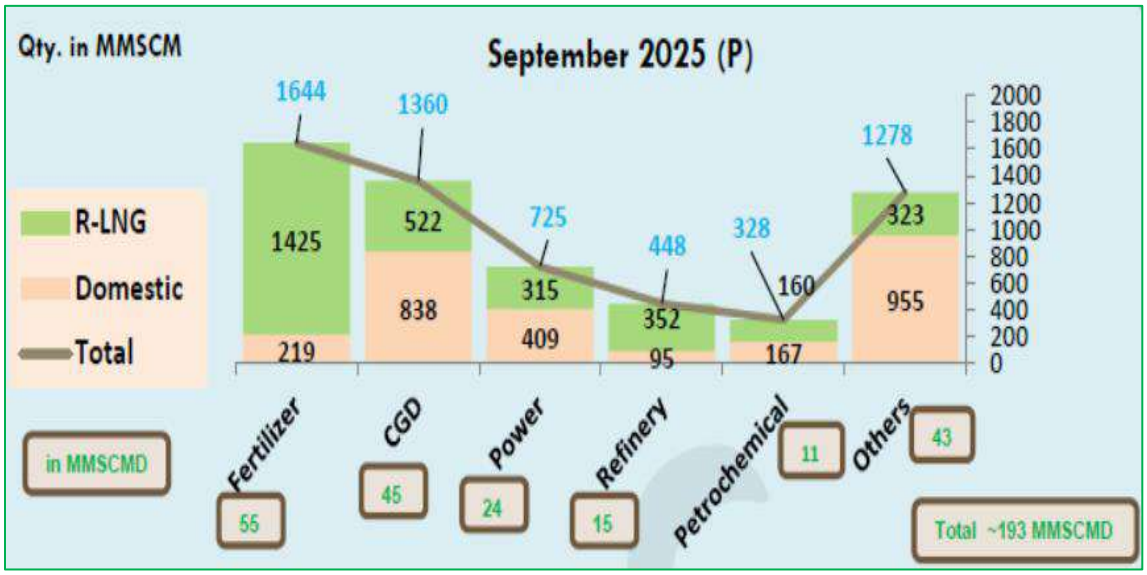


Source – PPAC

3. Sectoral Consumption of Natural Gas:

Major consumers were fertilizer, CGD, power, refinery, petrochemicals among others.

Figure 22: Sectoral Consumption of Natural Gas (Qty in MMSCM) in September 2025



Source - PPAC

Key developments in Oil & Gas sector

Monthly Production Report for September, 2025

1. Production of Crude Oil

Indigenous crude oil and condensate production during September 2025 was 2.3 MMT. Around 75.5% of production came from Nomination Fields, 13.5% from Pre-NELP Fields and 10.8% from NELP fields, during September 2025. There is a de-growth of 0.8% in crude oil and condensate production during September 2025 as compared with the corresponding period of the previous year.

2. Production of Natural Gas

Gross production of natural gas for the month of September 2025 (P) was 2860 MMSCM which was lower by 3.9% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 17585 MMSCM for the current financial year till September 2025 was lower by 3.2% compared with the corresponding period of the previous year.

3. Crude Oil Processed (Crude Throughput)

Total Crude oil processed during September 2025 was 21 MMT which is -0.8% lower than September 2024, where PSU/JV refiners processed 14.2 MMT and private refiners processed 6.8 MMT of crude oil. Total indigenous crude oil processed was 2 MMT and total Imported crude oil processed was 19 by all Indian refineries (PSU+JV+PVT). There was a growth of 1.3% in total crude oil processed in April-September current Financial Year as compared to same period of previous Financial Year.

4. Production of Petroleum Products

Production of petroleum products was 22 MMT during September 2025 which is -3.3% lower than September 2024. Out of 22 MMT, 21.7 MMT was from refinery production & 0.2 MMT was from fractionator. There was a de-growth of -0.2% in production of petroleum products in April-September FY 2025 – 26 as compared to same period of FY 2024 – 25. Out of total POL production, in September 2025, share of major products including HSD is 42.6%, MS 18.2%, Naphtha 5.9%, ATF 5.6%, Pet Coke 5%, LPG 4.2%, and rest is shared by Bitumen, FO/LSHS, LDO, Lubes & others.

Key Policy developments/Significant news in Energy sector

India opens 99% of offshore area for oil and gas exploration, expands crude import sources: Puri

Union Minister for Petroleum and Natural Gas, Hardeep Singh Puri, said that the government has expanded India's crude import basket from 27 to over 40 countries and opened up 99% of the nation's offshore area for oil and gas exploration.

The move, the minister said, is part of a four-pronged strategy aimed at building "a future where energy is secure, affordable, and sustainable." He outlined four key pillars of India's energy journey — diversification of crude imports, innovation, expansion of domestic oil and gas exploration, and a clean energy transition.

The latter, he noted, is reflected in the Green Hydrogen Mission and the 10.60 crore Ujjwala beneficiary families who have gained access to subsidised LPG as clean cooking fuel, replacing firewood and dung cakes. Taking to the social media platform X, Minister Puri wrote, "Under Prime Minister Narendra Modi's leadership, Bharat is building a cleaner, stronger, and self-sufficient energy future."

Puri also recalled that India's diversification of crude sourcing has played a crucial role in stabilising global prices. "India's oil purchases from Moscow played an important role in preventing a sharp spike in global prices," he said, adding that crude oil prices could have soared to $130 per barrel without the India-Russia oil trade during the onset of the Ukraine war in 2022.

Before the war, India imported only 0.2% of its crude oil requirements from Russia, a figure that now stands at close to 40%.

India to Emerge as Global Refining and Energy Hub: Shri Hardeep Singh Puri at Energy Technology Meet

India's petroleum and energy sector is undergoing a transformative expansion, poised to play a defining role in shaping the global energy future, said Shri Hardeep Singh Puri, Minister of Petroleum and Natural Gas, while addressing the inaugural session of the Energy Technology Meet. He stated that India's energy journey reflects remarkable progress driven by visionary policy frameworks, rapid innovation, and sustained investment across refining, biofuels, and green energy segments.

The Minister noted that while the global energy market is expected to grow at a slow pace—with several refineries worldwide facing closure—India stands out as a bright spot, projected to contribute nearly 30–33% of global energy demand growth in the coming decades. He pointed out that India's refining capacity currently stands at about 258 million metric tonnes per annum (MMTPA) and is on track to reach around 310 MMTPA by 2030, with long-term plans to scale further to 400–450 MMTPA. This expansion, he said, will consolidate India's position among the top three refining hubs globally as around 20% of existing global refining capacity—over 100 refineries—faces potential closure by 2035.

Highlighting India's achievements in biofuel blending, Shri Puri said that the country had advanced from a 5% target in 2006 to achieving 10% ethanol blending five months ahead of schedule in 2022. Building

on this success, the Government preponed the target for 20% blending from 2030 to 2025–26. The Minister underlined that well-designed policies and robust support systems have enabled such accelerated achievements, demonstrating India's capability to set and meet ambitious energy goals.

Shri Puri also observed that India's refineries are world-class, globally integrated, and export-ready. India is already the fourth-largest refining nation and among the top seven exporters of petroleum products, exporting to more than 50 countries worth over USD 45 billion in FY 2024–25. The refining sector, he added, contributes nearly one-fifth of the country's revenue, with both public and private entities showing strong financial and operational performance. Domestic petroleum consumption has increased from around 5 million barrels per day in 2021 to about 5.6 million barrels per day currently and is expected to touch 6 million barrels per day soon, supported by India's robust economic growth and rising per capita income.

Referring to the growing integration of petrochemicals with refining, Shri Puri said that India's petrochemical utilization is still only about one-third of the global average, offering significant potential for growth. The petrochemical intensity index has already risen from 7.7% to 13%, reflecting the sector's upward trajectory. He emphasized that new refinery expansions are being planned as integrated petrochemical complexes to enhance efficiency, value addition, and export competitiveness.

The Minister also underlined the importance of innovation and indigenization in the energy ecosystem. He said that India has achieved nearly 80% import substitution across the energy value chain. While acknowledging that certain critical components such as catalysts and specialized equipment continue to be imported, he emphasized the need for a balanced approach to Atmanirbharata, focusing on efficiency and global competitiveness rather than complete self-containment. He added that the government has initiated the Production Linked Incentive (PLI) scheme and established a National Centre for Catalyst Research to promote R&D and domestic manufacturing in key energy technologies.

Speaking about green energy, Shri Puri noted that India's progress in green hydrogen has been particularly promising. Recent tenders by IOCL and HPCL have reduced the price of green hydrogen from around USD 5.5/kg to nearly USD 4/kg, marking a major step toward commercial viability. He said that green hydrogen, natural gas, and biofuels will be central to India's energy transition, with the Global Biofuels Alliance expected to catalyze international trade and adoption of biofuels, including Sustainable Aviation Fuel (SAF).

Shri Puri stressed that India's energy strategy encompasses both fuel and petrochemical growth as part of a calibrated transition toward sustainability. He said that while the share of traditional fuels will gradually reduce, they will continue to play a major role for decades as India moves toward its 2047 goals. Simultaneously, the share of natural gas in the energy mix is being raised from 6% to 15%, green hydrogen is being scaled up, and renewables are expanding rapidly—all underlining India's commitment to meeting its climate goals without compromising energy security.

Recalling India's historic refining legacy, from the first refinery at Digboi in 1901 to today's global-scale facilities, the Minister said that post-2014 reforms and ecosystem strengthening have unlocked a new era of growth and innovation. He highlighted ongoing projects such as the Barmer Refinery and Andhra

Refinery as key examples of the sector's forward momentum. With over 100 biogas plants operational and 70 more in the pipeline, he said that India is building an ecosystem that connects technology, investment, and sustainability.

Shri Puri concluded that as India advances toward becoming a USD 10 trillion economy, its energy sector will not only meet domestic requirements but also serve global markets. The Minister expressed confidence that by 2035, India will move from being the world's fourth-largest to possibly the second-largest refining power. He emphasized that India's young demography, rising energy demand, and proactive policy environment will ensure that the country not only participates in but actively shapes the global energy future.

India's Growth Linked to Energy and Maritime Strength: Shri Hardeep Singh Puri

Shri Hardeep Singh Puri, Minister of Petroleum and Natural Gas, addressed the 'Revitalizing India's Maritime Manufacturing Conference' held in Mumbai as part of India Maritime Week 2025. He said India's rapid economic growth is closely connected to the progress of its energy and shipping sectors, which together serve as strong pillars of national development.

The Minister said that India's economy is growing fast, with the GDP now around 4.3 trillion dollars. Nearly half of this comes from the external sector, which includes exports, imports, and remittances. This shows how important trade—and therefore shipping—is for India's economic progress.

Speaking about the energy sector, Shri Puri said India currently consumes about 5.6 million barrels of crude oil per day, compared to 5 million barrels four and a half years ago. At the present rate of growth, the country will soon reach 6 million barrels per day. He shared that according to the International Energy Agency, India is expected to contribute nearly 30 percent of the global rise in energy demand in the next two decades, an increase from the earlier estimate of 25 percent. He added that this growing energy requirement will naturally increase India's need for ships to move oil, gas, and other energy products across the world.

The Minister Informed that during 2024–25, India imported around 300 million metric tons of crude and petroleum products and exported about 65 million metric tons. The oil and gas sector alone accounts for nearly 28 percent of India's total trade by volume, making it the largest single commodity handled by ports. He said that India currently meets about 88 percent of its crude oil and 51 percent of its gas needs through imports, which shows how important the shipping industry is for the country's energy security.

He explained that the freight cost forms a significant part of the total import bill. Oil marketing companies pay around 5 dollars per barrel to transport crude from the United States and about 1.2 dollars from the Middle East. Over the last five years, Indian PSUs such as IOCL, BPCL, and HPCL have spent nearly 8 billion dollars on chartering ships, an amount that could have built a new fleet of Indian-owned tankers.

Shri Puri pointed out that only about 20 percent of India's trade cargo is carried on India-flagged or India-owned vessels. He said this presents both a challenge and an opportunity for India to increase its ship ownership and manufacturing capacity. The government is working on steps like aggregating PSU

cargo demand to give long-term charters to Indian carriers, advancing the Ship Owning and Leasing (SOL) model, setting up a Maritime Development Fund for affordable vessel financing, and implementing Shipbuilding Financial Assistance Policy 2.0 with higher support for LNG, ethane, and product tankers.

The Minister said that under the leadership of Prime Minister Narendra Modi, India's maritime sector has seen major changes over the past eleven years. Port capacity has increased from 872 million metric tons per annum in 2014 to 1,681 million metric tons today, while cargo volumes have gone up from 581 million tons to about 855 million tons. He said that efficiency has also improved with turnaround time reduced by 48 percent and idle time cut by 29 percent. The Sagarmala Programme has already mobilized projects worth over Rs 5.5 lakh crore to modernize ports and connect coastal regions.

He said India's shipyards such as Cochin Shipyard, Mazagon Dock, GRSE Kolkata, HSL Visakhapatnam, and private yards in Goa and Gujarat are now building world-class vessels. Partnerships like Cochin Shipyard with L&T and Daewoo for LNG and ethane carriers, and collaborations with Mitsui OSK Lines, are helping bring global technology into Indian shipyards.

The Minister said that the shipbuilding industry requires long-term planning and steady orders to sustain infrastructure and skilled manpower. Since many global shipyards are booked for the next six years, India should encourage them to invest and build ships in India itself.

Looking ahead, he said the maritime sector is expected to attract about Rs 8 trillion in investment and create around 1.5 crore jobs by 2047. He also mentioned that India is playing a key role in shaping global trade routes through initiatives like the India–Middle East–Europe Economic Corridor and the International North-South Transport Corridor, linking Indian ports with Europe, Central Asia, and Africa.

Concluding his address, Shri Puri said that under the leadership of Prime Minister Modi, India sees its oceans not as barriers but as pathways to growth and prosperity. The country is modernizing ports, building more ships, promoting green shipping, and creating jobs for its youth. He said that India is ready to work with global partners to make the maritime sector a strong driver of a developed and self-reliant Bharat.

Shri Manohar Lal highlighted India's Leadership in Energy Transitions at G20, KwaZulu-Natal, South Africa

Shri Manohar Lal, Union Minister for Power and Housing & Urban Affairs, led the Indian delegation at the G20 Energy Transitions Ministerial Meeting hosted in KwaZulu-Natal, South Africa, under South Africa's G20 Presidency.

In his address, the Union Minister emphasized that energy security remains one of the most pressing global challenges particularly for the Global South, calling for strengthened G20 cooperation to ensure economic stability, sustainability, and equitable access to energy

Shri Manohar Lal highlighted India's remarkable progress in achieving its Nationally Determined Contribution (NDC) target of 50% non-fossil fuel capacity five years ahead of schedule in 2025 itself. He

outlined India's ambitious clean energy goals, of establishing itself as a global hub for green hydrogen production, advancing sustainable development, and achieving 100 GW of nuclear power capacity by 2047.

India's Biofuels Programme was also highlighted as a major success, marked by the achievement of 20% ethanol blending and the country's leadership in the Global Biofuels Alliance, which now includes 32 countries and 14 international organizations.

Acknowledging the disproportionate impact of climate change on developing nations, Shri Manohar Lal called for climate justice, stressing the importance of climate finance and technology transfer commitments under the Paris Agreement.

Drawing attention to the energy access gap in Africa, the Minister reaffirmed India's support for Africa's Mission 300, an initiative to electrify 300 million Africans by 2030.

In closing, Shri Manohar Lal called upon all nations to work together to build resilient, sustainable and equitable energy systems and extended an invitation for the upcoming Bharat Urja Manthan – A Global Energy Conclave, scheduled for March 2026 in New Delhi, India.

India and Nepal Strengthen Power Sector Cooperation: Nepal's Minister of Energy H.E. Kulman Ghising meets Union Minister Shri Manohar Lal

The Minister for Energy, Water Resources and Irrigation of Nepal, His Excellency Kulman Ghising, met with the Union Minister of Power and Housing & Urban Affairs, Shri Manohar Lal, in New Delhi. The meeting focused on strengthening the ongoing cooperation between the two nations in the power sector.

The discussions encompassed a wide range of issues, including the progress on development of hydropower projects in Nepal. The two sides also deliberated on regional grid connectivity initiatives aimed at facilitating cross-border electricity trade, strengthening energy security, and promoting greater integration of clean energy resources between India and Nepal.

In the august presence of Shri Manohar Lal and Shri Kulman Ghising, Joint Venture and Shareholders' Agreements (JV&SHA) were signed between POWERGRID, a Maharatna Central Public Sector Enterprise (CPSE) of India, and the Nepal Electricity Authority (NEA). These agreements are for the incorporation of two joint venture entities - one in India and one in Nepal - for the development of high-capacity cross-border power transmission infrastructure.

The proposed Cross-Border Transmission System Projects include the development of the Inaruwa (Nepal) – New Purnea (India) 400 kV Double Circuit (Quad Moose) Transmission Link and Lamki (Dododhara) (Nepal) – Bareilly (India) 400 kV Double Circuit (Quad Moose) Transmission Link. Once completed, these transmission corridors will substantially enhance the electricity exchange between India and Nepal, strengthening regional energy security, improving grid resilience, and contributing to sustained economic growth in both nations.

India achieved Historic milestone in power sector: Surpasses 500 GW and Renewable Generation Exceeds 50% of demand

India's power sector has achieved two historic milestones that show the nation's steady progress toward a clean, secure, and self-reliant energy future.

As of 30 September 2025, the country's total installed electricity capacity has crossed 500 GW, reaching 500.89 GW. This achievement reflects years of strong policy support, investments, and teamwork across the energy sector.

Break-up of India's Power Capacity

- Non-fossil fuel sources (renewable energy, hydro, and nuclear): 256.09 GW – over 51 % of the total.
- Fossil-fuel-based sources: 244.80 GW – about 49 % of the total.
- Within renewables:
- Solar power – 127.33 GW
- Wind power – 53.12 GW

During FY 2025–26 (April – September 2025), India added 28 GW of non-fossil capacity and 5.1 GW of fossil-fuel capacity — showing how fast the clean energy share is rising.

A Record Day for Renewable Energy

On 29 July 2025, India reached its highest-ever renewable energy share in electricity generation.

That day, renewables met 51.5 % of the country's total electricity demand of 203 GW.

- Solar generation: 44.50 GW
- Wind generation: 29.89 GW
- Hydro generation: 30.29 GW

This means that, for the first time, more than half of India's power came from green sources in a single day — a remarkable sign of change.

Meeting National Targets Ahead of Time

With this progress, India has already achieved one of its major COP26 Panchamrit goals — to have 50 % of installed electric power capacity from non-fossil fuel sources by 2030 — five years early.

This success highlights India's leadership in clean energy transition, achieved while keeping the electricity grid stable and reliable.

Significance of the achievement

India's renewable energy push is creating new employment opportunities in manufacturing, installation, maintenance, and innovation—benefiting both rural and urban youth.

Union Minister and President of International Solar Alliance Shri Pralhad Joshi Launched Curtain Raiser for the Eighth ISA Assembly

The Eighth Session of the International Solar Alliance (ISA) Assembly, scheduled from 27 to 30 October 2025 at Bharat Mandapam, New Delhi, will bring the world together under one Sun, one vision, and one shared commitment to solar energy.

Launched by India and France at COP21 in Paris, ISA is the largest treaty-based intergovernmental organisation from the Global South, bringing together 124 Member and Signatory Countries. This high-level ministerial gathering comes weeks ahead of COP30 in Brazil, shaping priorities for scaling solar energy, unlocking transformative finance, charting technology and policy roadmaps, and building skill ecosystems to accelerate a just and inclusive energy transition.

At the curtain-raiser, Shri Pralhad Joshi, Minister of New and Renewable Energy & President of the ISA Assembly, said, “Owing to its clear vision and the consistent policies, India achieved its renewable energy targets five years ahead of the schedule, crossing the 50% mark in overall installed electricity capacity from non-fossil resources. Today with approximately 125 GW of solar capacity, India is the world's third largest solar producer. This progress shows how the national ambition can translate to meaningful change at the local level. It is because our success story is more than just numbers; it is about the people. We have seen firsthand how decentralised solar transforms lives, bring light to rural homes, powers local health centres and gives new tools to our farmers. With PM Surya Ghar - Muft Bijli Yojana, more than 20 lakh households are benefiting from solar power.”

He further added, “Under the PM-KUSUM scheme, we are taking this transformation to the heartland of India. The three components of the scheme target the installation of 10 gigawatts of small solar plants; support 1.4 million off-grid solar pumps; and solarise 3.5 million grid-connected agricultural pumps. Together, these efforts are ensuring that clean energy reaches the last mile. It is this combination of scale and inclusiveness that defines India’s energy transition.”

Shri Santosh Kumar Sarangi, Secretary, Ministry of New and Renewable Energy, GoI, noted, “Today we are the third largest in solar power, fourth largest in wind power and overall, we are now the third largest renewable energy installation in the world. Additionally, in manufacturing of solar modules we are the second largest after China. Our manufacturing is not only confined to solar modules but also extends to areas like green hydrogen which is a pivotal part of our energy security—and is going ahead as per our goal of manufacturing about 5 million tonnes of green hydrogen by 2031.”

He also noted, “ISA's role in experience sharing, in cross learning and in deploying solar both at scale as well as at a distributed level has been commendable and I compliment the partner countries who have collaborated within the framework of ISA for expansion of solar energy in their respective countries. We remain committed to continue this collaboration in future and in a variety of ways through both financial support as well as technical support which we have been extending to ISA. We also wish to see how it can be scaled up in other countries. Some of the deployment experiments in Africa have shown encouraging results. Given India’s success in deploying solar energy at both utility and distributed levels—through household and farm-level initiatives such as the PM Surya Ghar - Muft Bijli Yojana,

which aims to solarise 10 million households, and the PM-KUSUM scheme for farm-level solarisation—India is ready to partner with other countries in implementing similar initiatives."

Mr Ashish Khanna, Director General of ISA said, "Global renewable energy is at an inflection point. It took oil 25 years to reach 1,000 GW — renewables doubled that in just two years. For the first time, renewable generation has surpassed fossil generation. This is a decisive moment for the Global South to lead. The coming decade must be defined not only by ambition but by tangible action. In this new energy landscape, ISA is emerging as a platform of aggregation—convening nations for collective action to drive large-scale solar deployment. Our vision is to accelerate this momentum by moving from commitments to concrete projects, from dialogue to delivery, and from potential to measurable impact—ensuring solar truly becomes the foundation of a sustainable and inclusive future."

Recalling Hon'ble Prime Minister Shri Narendra Modi's vision at the first ISA Assembly in 2018, Mr Khanna emphasised ISA's role in enhancing solar deployment through aggregation, harmonising technology standards, enabling data-driven energy planning, supporting research and innovation, and advancing One Sun, One World, One Grid (OSOWOG). He highlighted India's potential to become the "Silicon Valley for Solar" with the establishment of the Global Capability Centre (GCC), linked with STAR-C hubs worldwide for technical support, digital tools, and training.

The Eighth Session of the ISA Assembly will focus on four strategic pillars: Catalytic Finance Hub; Global Capability Centre & Digitisation; Regional & Country-Level Engagement; and Technology Roadmap & Policy. Ministerial and technical sessions will explore actionable priorities, including advancing catalytic finance through the Africa Solar Facility, strengthening country partnerships through the Small Island Developing States (SIDS) Platform, a dedicated initiative to support SIDS in accelerating solar energy deployment through finance, technology, and capacity-building partnerships. and scaling innovation via floating solar, AI and digitisation, OSOWOG, green hydrogen, and standards and testing and solar for agriculture, underscoring ISA's shift from ambition to action.

The Assembly will also see the release of ISA's flagship reports—Ease of Doing Solar 2025 and Solar Trends 2025—outlining global progress and pathways to scale solar deployment.

Ahead of the Assembly, ISA convened Regional Committee Meetings across its four regions: Europe & Others in Brussels (10–12 June), Asia-Pacific in Colombo (15–17 July), Latin America & the Caribbean in Santiago (4–6 August), and Africa in Accra (2–4 September). These meetings, attended by representatives from over 100 countries, reviewed progress, addressed challenges, and aligned regional initiatives with ISA's global priorities. Recommendations on catalytic finance, innovation partnerships, and solarisation for energy access will feed into the Assembly's deliberations and outcomes.

PM Modi's Vision Heralded a Solar Energy Revolution; 21st Century Belongs to India: Union Minister Pralhad Joshi

Union Minister for New and Renewable Energy, Shri Pralhad Joshi, addressed the 'Vibrant Gujarat' Regional Conference organized at Ganpat University in Mehsana. He lauded Gujarat's achievements in

the clean energy sector and expressed pride in the renewable energy revolution that has swept the nation under the leadership of Prime Minister Shri Narendra Modi.

The Union Minister stated that, under the leadership of the Prime Minister and the efforts of Chief Minister Shri Bhupendrabhai Patel, Gujarat now sources about 60% of its installed capacity from renewable energy. When Prime Minister Shri Narendra Modi first initiated the solar energy endeavor 25 years ago, the cost per unit was ₹18 to ₹20. He added that a visionary is someone who can foresee what will happen 20-25 years later. The Prime Minister had envisioned it at that time. Today, this vision has become a revolution. Recently, the cost of a solar unit in Madhya Pradesh has dropped to just ₹2.15 per unit. Even with battery storage, the price per unit was recorded at ₹2.70. The initiative that many doubted has today positioned India as a frontrunner in the global solar revolution, he said.

The Minister mentioned that in 2014 when Prime Minister Modi took office, the country's total solar power generation was only 2.8 Gigawatts (GW). Today, the country is getting 125 GW of electricity solely from solar power. Praising Mehsana, Shri Joshi said, "Mehsana is a very dynamic place, which is considered a beacon of clean energy." He highlighted that Modhera in the district is perhaps the only village in the world to generate 24x7 clean electricity, which is a matter of great pride.

Drawing attention to the serious challenge of climate change, the Union Minister said, "Due to our increasing demand, we are becoming unsustainable, not sustainable. We are destroying nature and biodiversity." He warned that the Earth's temperature has risen by 1.1 degrees Celsius since the Industrial Revolution, leading to the extinction of creatures like the polar bear and polar fox. Shri Joshi emphasized, "We have a maximum of 7 years before the temperature rises by 1.5 degrees. If we cross this, the situation will become very serious.

India Reframes Its Renewable Revolution: The Next Big Leap from Speed to System Strength for Viksit Bharat

India’s renewable energy sector is entering a transformative new phase, one defined not merely by the pace of capacity addition, but by the strength, stability, and depth of its systems. After a decade of record expansion, the focus is now shifting toward creating a robust, dispatchable, and resilient clean energy architecture that can support the nation’s ambitious goal of achieving 500 GW of non-fossil capacity by 2030.

The Ministry of New and Renewable Energy (MNRE) underscores that India’s renewable growth story remains one of the fastest and most forward-looking in the world, evolving from speed to system strength, from quantity to quality, and from expansion to enduring integration.

A Shift from Quantity to Quality

In the last decade, India’s renewable energy capacity has grown more than fivefold, from under 35 GW in 2014 to over 197 GW (excluding large hydro) today. Such exponential growth inevitably reaches a point where the next leap requires not just more megawatts, but deeper system reforms.

The sector has entered that phase, where the focus is shifting from capacity expansion to capacity absorption. We are now dealing with grid integration, energy storage, hybridisation, and market reforms, the real foundations for a 500 GW plus non-fossil future. In that sense, the recent moderation in capacity addition is a recalibration, a necessary pause to ensure that future growth is stable, dispatchable, and resilient.

India's RE Growth Remains Among the Fastest in the World, Driven by Multi-Pathway Expansion

Over 40 GW of awarded renewable projects are presently in advanced stages of securing PPAs, PSAs, or transmission connectivity a clear reflection of the sector's robust pipeline of committed investment. The reality is that India's renewable market has outpaced the pace of its grid and contractual institutions, a challenge common to all countries undergoing large-scale energy transitions.

In this context, enforcement of Renewable Power Purchase Obligation by states/ DISCOMs, upgrading the transmission lines for evacuation of power and use of technology for grid integration remain top priorities before going ahead with large scale bids for RE.

In the current year, Central Renewable Energy Implementing agencies (REIAs) have done bids for 5.6 GW, while State agencies have done bids for 3.5 GW. Additionally Commercial and Industrial Consumers are likely to add nearly 6 GW of renewable energy capacity in calendar year 2025. Thus, capacity addition of RE is progressing through multiple pathways and not necessarily through REIA led bids alone.

Global headwinds have also played a role: supply-chain disruptions, fluctuating module prices, and tighter financing conditions have slowed commissioning timelines. Yet India continues to add 15–25 GW of new renewable capacity annually — a rate that remains among the fastest in the world.

A Deliberate Policy Pivot

Over the past two years, policy attention has consciously shifted from pure capacity growth to system design. Tenders for RE power with energy storage or peak power supply now dominate auctions, signaling a move toward firm and dispatchable green power. Battery Energy Storage Systems (BESS) are being integrated at both grid and project levels, marking the emergence of a new market. Domestic manufacturing, incentivised through the Production-Linked Incentive (PLI) scheme, Domestic Content Requirement, imposition of duties, implementation of ALMM, and duty exemptions for capital equipment, is reducing import dependency and creating industrial depth.

In addition, the recalibration of GST structures and ALMM provisions represents a strategic consolidation phase, aligning fiscal policy with the twin objectives of domestic value chain depth and technology assurance. Far from being disruptive, these adjustments are designed to stabilise costs, enhance module reliability, and promote scale efficiencies in India's maturing solar manufacturing ecosystem. Concurrently, the trajectory of battery storage deployment is advancing through viability gap–funded projects, sovereign tenders, and emerging storage obligations, establishing the foundation for firm, dispatchable renewable capacity. These measures signal a shift from expansion-led growth to a more resilient, quality-driven, and system-integrated renewable energy architecture.

Such transitions take time to yield visible capacity figures, but they represent lasting structural progress, the kind that underpins a robust energy future.

Transmission Reforms Poised to Unlock Over 200 GW of Renewable Potential

Transmission has emerged as the new frontier. India's grid is being reimagined through the ₹2.4 lakh crore Transmission Plan for 500 GW, linking renewable-rich states with demand centres. The Government is prioritizing investment in transmission infrastructure through the Green Energy Corridors and new high-capacity transmission lines from Rajasthan, Gujarat, and Ladakh. While these projects are multi-year efforts, once operational they will unlock over 200 GW of new renewable capacity. The current stage is therefore temporary - a transition lag, not a structural ceiling. Government has already planned for building HVDC corridors and boosting inter-regional transmission capacity from 120 GW today to 143 GW by 2027, and 168 GW by 2032.

Additionally, the recent amendments to the CERC General Network Access (GNA) Regulations, 2025 have significantly improved the outlook for transmission readiness. The introduction of time-segmented access— 'solar-hours' and 'non-solar-hours'— allows dynamic sharing of corridors between solar, wind, and storage projects, unlocking idle capacity and easing congestion in RE-rich states. Provisions for source flexibility, stricter connectivity norms, and greater substation-level transparency further streamline grid access and curb speculative allocations. These reforms mark a decisive step toward optimising transmission utilisation and fast-tracking stranded renewable projects, directly addressing one of the sector's core implementation challenges.

India Remains a Magnet for Clean Energy Capital

Despite short-term delays, India remains a magnet for clean energy capital. Renewable tariffs continue to be among the lowest globally, ensuring long-term competitiveness. India continues to be one of the most attractive destinations for investment in clean energy sector, and international interest remains high. Global investors are not exiting India; they are repositioning towards integrated and storage-backed portfolios. The sector's fundamentals — strong demand growth, policy continuity, and cost competitiveness — remain firmly intact.

The Real RE Story: From Expansion to Integration

The deeper story is one of evolution, not erosion. India's clean energy transition is entering a phase where the core challenges are about integration, reliability, and scale efficiency. A temporary flattening of project pipeline in this context is a mark of maturity. The sector is doing the harder work now — synchronising renewables with grid infrastructure, financial discipline, and long-term market design.

To complement physical grid expansion, Virtual Power Purchase Agreements (VPPAs) and other market-based instruments will play a pivotal role in accelerating renewable energy deployment. VPPAs allow corporate and institutional buyers to contract renewable power virtually—decoupling procurement from physical delivery—thereby deepening demand, providing price certainty to developers, and stimulating private investment in projects awaiting grid connectivity. Coupled with green attribute trading, market-based ancillary services, and day-ahead and real-time market integration, these

instruments will create a robust ecosystem for flexible, demand-driven renewable growth. Such mechanisms are in the process of being strategically incorporated under the Electricity (Amendment) Bill or through CERC market regulations, with enabling policy support from MNRE and MoP, to align corporate procurement, grid flexibility, and national decarbonisation targets.

Looking Ahead

The next phase of growth is already taking shape:

- Large hybrid and RTC projects are moving into execution across Rajasthan, Gujarat, and Karnataka.
- Offshore wind and pumped hydro storage are gaining momentum.
- Distributed solar and agrovoltaic initiatives under PM Suryaghar and PM KUSUM are deepening rural participation.
- The National Green Hydrogen Mission is linking renewables with industrial decarbonisation.
- RE integration through strengthening of Green Energy Corridor Phase III

These are the levers that will propel India toward its 2030 targets — not by sheer speed, but by strategic endurance.

Viksit Bharat: A Renewable Energy Transition Growing Up

India's clean energy transition is not defined by quarterly numbers but by institutional durability and stickability. After a decade of sprinting, the sector is learning to move forward by synchronising capacity with grid strength, local manufacturing, and financial stability. India's RE journey is, in a phase of consolidation — one that ensures that when the next acceleration comes, it will be both faster and far more sustainable. India's renewable story has not lost momentum. It has gained maturity.

Historic Launch of First Commercial Coal Mine in Arunachal Pradesh at Namchik-Namphuk

Arunachal Pradesh is set to witness a historic day on 06 October 2025 with the launch of its first commercial coal mine at the Namchik-Namphuk coal block, marking a new chapter of growth, energy security, and local prosperity. Union Minister Shri G. Kishan Reddy will first perform the Bhoomi Poojan, followed by the handing over of the mining lease. He will then flag off the tools and machineries of CPPL to the Namchik -Namphuk central coal block, and finally participate in a tree plantation drive as part of the 100-tree plantation initiative.

The Namchik Namphuk coal block, with reserves of 1.5 crore tonnes, was first allocated in 2003 but faced long delays and stoppages due to various challenges. It was revived through a transparent auction process in 2022, opening the doors for private sector entry and marking the end of years of delays. This initiative carries forward Prime Minister Shri Narendra Modi's vision of EAST – Empower, Act, Strengthen, Transform – a guiding philosophy for every initiative in the Northeast. With this

development, Arunachal Pradesh joins india's coal journey, the world's second-largest coal producer, which crossed a record 1 billion tonnes of production last year. The mine is expected to generate over ₹100 crore annually as revenue for the state, creating jobs and prosperity for youth.

The launch also signifies an end to illegal mining, exploitation and wastage of state resources, ensuring that development, transparency and accountability benefit the people. Critical minerals are also being unlocked for the first time in Arunachal, with two blocks in the state and five in Assam under auction, vital for future technology and national security. Officers have been urged for speedy operationalisation, which will generate employment and prosperity for local youth, supporting the Atmanirbhar Bharat path through local resources, local jobs, and local strength.

While enabling growth, the Government has reiterated its commitment that mining in the Northeast will have no compromise with ecology. The region, known for its green valleys, rivers and strong communities, will be developed as a global model for sustainable mining. The coal sector has already reclaimed 57,000 hectares of land and will reclaim 16,000 hectares more by 2030 under Mission Green Coal Regions. Mining is being undertaken as an economic, ecological and community responsibility, driven by Jan Bhagidaari.

Over the past 11 years, the Northeast has witnessed investments of more than ₹6 lakh crore. In Arunachal alone, allocations have risen from ₹6,000 crore before 2014 to ₹1 lakh crore post-2014, a 16-fold increase. GST reforms have boosted traditional sectors such as tea, silk, handicrafts and tourism, while a connectivity revolution has been achieved through 16,000 km of national highways, 80,000 km of rural roads, 2,000 bridges, 19 airports, the Sela Tunnel and Bhupen Hazarika Bridge. Rail investments have multiplied five-fold, with projects worth ₹77,000 crore ongoing. The Northeast Gas Grid is bringing energy closer to industries, while the Vibrant Villages Programme has connected 450 border villages. These efforts have transformed the region from a conflict zone to a growth engine, positioning it as the Ashtalakshmi region central to Viksit Bharat.

Workers, the real strength of the coal sector, are being supported with safety, wages, healthcare, scholarships and better living conditions. Welfare measures include the Corporate Salary Package with insurance and loans, ₹1 crore accident cover, ₹2 crore air accident cover, first-time insurance for contract workers, ex-gratia of ₹25 lakh for fatal accidents, and a Uniform Dress Code Scheme to instil identity, respect and unity.

The launch of the Namchik Namphuk coal block will embody the integration of development, ecology, and Jan Bhagidaari, supporting India's energy security, community welfare, and Atmanirbhar Bharat. The coal and mining sector is committed to making the Northeast a shining example of growth, green energy, and people empowerment under the leadership of Prime Minister Shri Narendra Modi.

Ministry of Coal issued Vesting Orders for Five Coal Blocks under Commercial Coal Auctions

The Ministry of Coal, through its Nominated Authority, has issued Vesting Orders for 5 coal blocks under commercial coal block auctions today. The Coal Mine Development and Production Agreements (CMDPA) for these blocks were signed on August 21, 2025.

The coal blocks for which vesting orders have been issued are Tandsi III & Tandsi III Extension, Senduri, West of Tubed, Chitarpur (Revised), and Phutamura. Among these, four blocks are partially explored and one block is fully explored, having a Peak Rated Capacity (PRC) of approximately 3.45 million tonnes per annum (MTPA) and geological reserves of about 1,556.31 million tonnes (MT).

These blocks are expected to generate an annual revenue of around ₹360 crore and attract a capital investment of approximately ₹517 crore. Furthermore, they are projected to create employment opportunities for nearly 4,664 people, both directly and indirectly.

With the issuance of these vesting orders, a total of 125 coal blocks have now been vested or allocated under commercial coal auctions. Collectively, these blocks account for a cumulative PRC of around 265.844 MTPA, which is estimated to generate annual revenue of approximately ₹37,463 crore and provide employment to nearly 3,59,400 people directly and indirectly.

Coal India & IIT Madras Join Hands to Establish Centre for Sustainable Energy

Coal India Limited (CIL), on Wednesday, signed a Memorandum of Understanding (MoU) with the Indian Institute of Technology Madras (IIT Madras) to establish the "Centre for Sustainable Energy" at the IIT Madras. The MoU was signed by Shri Achyut Ghatak, Director (Technical), CIL, and Shri V. Kamakoti, Director, IIT Madras, in the presence of Shri P.M. Prasad, Chairman, CIL, along with senior officials from both CIL and IIT Madras.

The Centre will serve as a hub for cutting-edge R&D and capacity-building initiatives in sustainable energy technologies. Supported by CIL's funding and aligned with its strategic diversification goals, the Centre will focus on developing solutions for repurposing coal mines, creating low-carbon technologies, and reimagining coal as a valuable feedstock in India's clean energy future. This partnership underscores a shared commitment to leading India's energy transition through indigenous research, innovation, and technology development to achieve the nation's net-zero ambitions by 2070.

Speaking on the occasion, Shri P.M. Prasad, Chairman, CIL, said that Coal India is transforming from being the nation's energy provider to becoming a key enabler of India's clean energy transition. "This MoU marks a historic step in Coal India's journey toward sustainable growth. Through this collaboration with IIT Madras, Coal India aims to generate indigenous solutions that ensure energy security, decarbonization, and socioeconomic progress," he added.

Shri V. Kamakoti, Director, IIT Madras, stated that industry–academia collaborations have been a cornerstone of IIT Madras' journey toward leading India's transition to a low-carbon economy. "The partnership with Coal India epitomizes the institute's commitment to this cause. Together, we aim to develop scalable and impactful solutions that support India's sustainable energy future," he emphasized.

The Centre will also contribute to human capital development through Ph.D., postdoctoral, and internship programs, nurturing the next generation of researchers and engineers to lead India's green energy transformation.

Vesting Orders Issued for 3 Coal Blocks Under Commercial Auctions

The Nominated Authority, Ministry of Coal has issued the Vesting Orders for 3 coal blocks under commercial coal block auctions on October 23, 2025. The Coal Mine Development and Production Agreements (CMDPA) for these blocks were signed on August 21, 2025.

The blocks for which vesting orders have been issued are Rajgamar Dipside (Deavnara), Tangardihi North and Mahuagarhi. Among these, 2 blocks are partially explored and 1 block is fully explored with peak rated capacity of ~ 1.00 MTPA. The total geological reserves of these three blocks are ~1,484.41 MT. These blocks are expected to generate an Annual Revenue of ~Rs. 189.77 crores and attract Capital Investment of ~Rs. 150 crores. It will provide employment to ~1352 people directly and indirectly.

With this, vesting/ allocation orders have been issued for 130 coal blocks under commercial auctions with cumulative PRC of ~267.244 MTPA. It will result in generating Annual Revenue of ~Rs. 37,700 crores and will generate employment for ~3,61,301 people directly and indirectly.

Ministry of Coal Launched 14th Round of Commercial Coal Mine Auctions

The Ministry of Coal today launched the 14th Round of Commercial Coal Mine Auctions in New Delhi, marking another milestone in India's journey toward energy self-sufficiency and sustainable growth. Union Minister of Coal and Mines, Shri G. Kishan Reddy graced the occasion as the Chief Guest through video conferencing. Shri Vikram Dev Dutt, Secretary, Ministry of Coal; Ms. Rupinder Brar, Additional Secretary; Shri Sanoj Kumar Jha, Additional Secretary; senior officials of the Ministry; industry leaders; and key stakeholders from across the coal sector were present at the occasion.

The Ministry of Coal has successfully auctioned 133 coal mines across 12 rounds of Commercial Coal Mine Auctions, with a Peak Rated Capacity (PRC) of~276 million tonnes per annum (MTPA). Notably, for the first time, provisions for Underground Coal Gasification (UCG) have been introduced in the 14th Round of Commercial Coal Mine Auctions, reflecting the Ministry's commitment to technological advancement and sustainable coal utilization.

Under the 14th Round, a total of 41 coal mines have been offered, of which 21 mines possess UCG potential, opening new avenues for the underground gasification of deep-seated coal reserves. Of these 41 mines, 20 are fully explored and 21 are partially Explored, offering a balanced mix of opportunities for investors and developers. The round includes 5 mines under the Coal Mines (Special Provisions) Act, 2015 (CMSP) and 36 under the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR).

Delivering his keynote address, Union Minister of Coal and Mines, Shri G. Kishan Reddy, stated that the 14th Round of Commercial Coal Mine Auctions represents a defining moment in India's journey towards energy independence, reinforcing the Government's commitment to energy security, Aatmanirbhar Bharat, and sustainable industrial growth.

Minister highlighted that under the visionary leadership of Prime Minister Shri Narendra Modi, the coal sector has undergone an unprecedented transformation from reform to perform and from perform to transform. The Minister noted that the commercial mining reforms introduced by the Government have

unlocked vast new opportunities, leading to enhanced domestic production, reduced import dependency, and greater employment generation at the regional level.

Shri Reddy further emphasized that commercial coal mining has catalyzed a paradigm shift, making the sector more competitive, efficient, and investment-friendly. He underscored that one of the most significant features of this tranche is the focus on Underground Coal Gasification (UCG) an innovative technology being promoted for the first time in the auction process. Nearly 40% of India's coal reserves lie deep underground, beyond the reach of conventional mining methods.

Referring to the Ministry of Environment, Forest and Climate Change (MoEFCC), he informed that pilot UCG projects are exempted from environmental clearance, ensuring faster implementation. He added that the Government, through a Whole-of-Government Approach, is working in close coordination to accelerate the pace of coal gasification. The success of this initiative, he emphasized, will depend on collaboration between the Government, private industry, and academia.

The Minister urged all stakeholders to enthusiastically seize this opportunity and join hands in shaping the future of coal utilization in India.

In his insightful discourse, Shri Vikram Dev Dutt, Secretary, Ministry of Coal, emphasized the Ministry's steadfast commitment to accelerating reforms, enhancing transparency, and deepening digital integration across the coal ecosystem.

Shri Dutt underlined that the Ministry is constantly working on reforms and policy-process changes to ensure timely, efficient, and sustainable outcomes. With a futuristic mindset, the Ministry aims to take reforms to a much higher level driving accelerated coal production, especially in underground mining, while ensuring responsible and optimized use of resources. Highlighting the Government's mantra of Reform, Perform, and Transform, Shri Dutt stated that these efforts are not only improving operational efficiency but also paving the way for private participation and technological innovation in the sector.

Shri Dutt noted that the 14th Round of Commercial Coal Mine Auctions represents a major step towards energy security and self-reliance, with several identified blocks suitable for Underground Coal Gasification (UCG), a technology holding immense potential for the future of clean coal utilization.

In her address, Ms. Rupinder Brar, Additional Secretary and Nominated Authority, Ministry of Coal, highlighted that the recently concluded 13th Round of Commercial Coal Mine Auctions has painted a rosy and progressive picture of India's coal sector, marked by enthusiastic stakeholder participation and robust investor confidence. She observed that this encouraging response reflects the success of the Government's reform-driven policies aimed at promoting transparency, competitiveness, and self-reliance in coal mining.

Ms. Brar further stated that the launch of the 14th Round of Commercial Coal Mine Auctions is not just a continuation but an evolution integrating cutting-edge technology, digital platforms, and data-driven processes to streamline operations and strengthen governance. She emphasized that these transformative efforts are positioning India's coal sector on a future-ready path, ensuring optimal resource utilization, minimal environmental footprint, and maximum efficiency.

Ms. Brar also noted that the Ministry's vision is to create a sustainable, technology-enabled, and investor-friendly ecosystem that empowers both established players and new entrants to participate in India's dynamic energy transition. The ongoing adoption of digital tools, including real-time dashboards and integrated monitoring systems, is ushering in a new era of accountability, speed, and transparency, reinforcing India's march towards energy independence and industrial growth.

In his address, Shri Sanoj Kumar Jha, Additional Secretary, Ministry of Coal, highlighted that commercial coal mining remains pivotal to ensuring energy security and achieving the goals of AtmaNirbhar Bharat. Shri Jha emphasized the Ministry's continuous efforts toward transparency, efficiency, and digital empowerment, noting that initiatives like Koyla Shakti and CLAMP Portals will foster a data-driven, accountable, and future-ready coal ecosystem.

The launch of the 14th Round of Commercial Coal Mine Auctions reaffirms the Ministry's vision to build a robust, transparent, and self-reliant coal ecosystem, fostering industrial growth, regional development, and sustainable energy security for the nation.

Union Minister of Coal and Mines Shri G. Kishan Reddy Launched KOYLA SHAKTI Dashboard and CLAMP

In a significant step toward digital transformation and transparent governance, the Union Minister of Coal and Mines, Shri G. Kishan Reddy, launched two transformative digital platforms the KOYLA SHAKTI Dashboard and the Coal Land Acquisition, Management, Portal (CLAMP) through video conference at event held at New Delhi. The event marks another milestone in the Ministry's journey toward efficiency, transparency, and data-driven governance in the coal sector.

The occasion was graced by Shri Vikram Dev Dutt, Secretary, Ministry of Coal, Smt. Rupinder Brar, Additional Secretary and Nominated Authority, and Shri Sanoj Kumar Jha, Additional Secretary, along with senior officials of the Ministry, industry leaders, and key stakeholders from across the sector.

Speaking at the event, Shri G. Kishan Reddy, Union Minister of Coal and Mines, said that the launch of the Koyla Shakti Dashboard marks a major step forward in integrating the entire coal value chain on a unified digital platform. He noted that this innovative system will strengthen real-time coordination, enhance transparency, and enable data-driven governance across the sector. The Minister emphasized that Koyla Shakti will serve as the digital backbone of India's coal ecosystem, advancing the Government's vision of Aatmanirbhar Bharat and "Minimum Government, Maximum Governance."

Minister further added that the CLAMP represents another significant milestone in the Ministry's efforts to promote transparent, efficient, and citizen-centric digital governance. The portal, embodies the Government's commitment to enhancing accountability and reducing procedural delays in land acquisition processes for coal-bearing areas, thereby ensuring equitable and time-bound compensation and rehabilitation.

In his address, Shri Vikram Dev Dutt, Secretary, Ministry of Coal, highlighted that the Koyla Shakti Dashboard and CLAMP exemplify the Ministry's reform-oriented and futuristic approach. He stated that

both platforms will serve as catalysts for improving transparency, accountability, and governance standards across the coal value chain.

He added that by leveraging technology for real-time data integration and decision support, the Ministry aims to streamline processes, reduce delays, and enhance coordination among stakeholders. Shri Dutt reaffirmed that the Ministry remains committed to policy and process reforms that will propel the coal sector to the next level of operational excellence.

Smt. Rupinder Brar, Additional Secretary and Nominated Authority, delivered a detailed presentation focusing on the Koyla Shakti, Smart Coal Analytics Dashboard (SCAD). She explained that the portal has been conceptualized as a unified, real-time digital platform integrating data from multiple sources across the coal value chain including coal-producing companies, central ministries, state departments, railways, ports, and power utilities. The dashboard provides end-to-end visibility on coal production, dispatch, logistics, and consumption, ensuring seamless coordination among stakeholders.

Smt. Brar highlighted that Koyla Shakti enables real-time monitoring of coal movement through rail, road, and multimodal systems, facilitating data-driven decision-making and predictive analytics for better demand forecasting and logistics planning. The system enhances efficiency, transparency, and accountability by consolidating key performance indicators into a single, easy-to-navigate interface. She also briefly highlighted that the CLAMP will complement Koyla Shakti by strengthening land acquisition management and compliance processes.

Koyla Shakti Dashboard

The Koyla Shakti Dashboard is a pioneering digital platform that integrates the entire coal value chain from mine to market on a unified interface. The platform facilitates real-time coordination among coal companies, railways, ports, and end users, thereby enhancing operational efficiency and ensuring seamless coal logistics.

As a comprehensive decision-support system, Koyla Shakti enables data-driven governance, optimizes resource allocation, and strengthens supply chain management. This initiative underscores the Ministry's commitment to transparency, efficiency, and technological innovation, in line with the Government's vision of Aatmanirbhar Bharat and Minimum Government, Maximum Governance.

About the Dashboard

For decades, the coal supply chain encompassing production, transportation, logistics, dispatch, and consumption has involved multiple stakeholders and complex coordination. "Koyla Shakti" eliminates these silos by integrating data across the ecosystem in real time.

The platform acts as a comprehensive decision-support system, ensuring:

- Seamless coordination among coal companies, railways, ports, and end users.
- Transparency and accountability through data-driven monitoring.
- Faster, smarter decision-making enabled by live analytics and digital dashboards.

It is a revolutionary step that will change the face of supply chain management in the coal sector, leading to optimized logistics, reduced costs, and greater reliability of coal availability to consumers, especially power, steel, and cement industries.

Developed by the Ministry of Coal, the Koyla Shakti – Smart Coal Analytics Dashboard (SCAD) serves as a centralized digital platform integrating data from multiple stakeholders, including:

- Coal producing companies and private miners
- Central Ministries and Departments such as Coal, Railways, Power, Finance, Ports, Shipping & Waterways, and Road Transport & Highways
- State Departments managing coal production (E-khanij platforms)
- Power generation companies and other industrial coal consumers
- Port authorities and private coal-handling terminals

Objectives and Key Features

The primary objective of Koyla Shakti is to strengthen operational efficiency, promote transparency, and enhance coordination across the coal supply chain. The key features include:

1. Unified Visibility: Integration of diverse data sources into a single, comprehensive interface.
2. Real-Time Monitoring: Continuous tracking of coal production, dispatch, and logistics operations.
3. Data-Driven Decision Making: Analytical tools to support evidence-based policy formulation and management decisions.
4. Incident Response: Timely alerts and notifications enabling faster resolution of operational challenges.
5. Standardization: Uniform metrics and reporting formats ensuring consistency across departments.
6. Operational Efficiency: Simplification of monitoring and reporting, minimizing manual errors.
7. Scalability: Provision for integration with future digital systems and additional data sets.
8. Transparency and Accountability: Enhanced visibility of performance indicators for all stakeholders.
9. Policy Planning and Forecasting: Analytical insights to support demand forecasting and strategic planning.

Koyla Shakti stands as a shining example of India's capability to leverage technology for governance reform. It is not just a dashboard; it is the digital heartbeat of the coal sector's transformation, driving India toward a secure, sustainable, and self-reliant energy future.

CLAMP

The Coal Land Acquisition, Management, Portal (CLAMP) is a unified digital solution aimed at streamlining land acquisition, compensation, and rehabilitation & resettlement (R&R) processes in the coal sector. Serving as a centralized repository of land records, the portal ensures data integration, enhances accountability, and minimizes procedural delays. By digitizing the complete workflow from

uploading land details to payment of compensation, CLAMP enhances transparency, efficiency, and inter-agency coordination in land management practices across coal PSUs.

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