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Team ArthNITI

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FROM THE VICE CHAIRMAN'S DESK

According to the International Monetary Fund's latest World Economic Outlook, global economic growth is likely to moderate from 5.9% in 2021 to 4.4% in 2022. The January 2022 forecast, which is 50 basis points lower than its October 2021 projections, largely reflects markdowns in the US and China growth rates. Further downward adjustments to International Monetary Fund's forecast are expected after the outbreak of war in Ukraine. The International Monetary Fund (IMF) expects India to grow at 9.0% in FY2021–22 and 7.1% in FY2022–23. These projections may also change with the factoring in of the impact of the Ukraine situation on oil and other commodity prices and disruptions in global supply chains.

Global inflationary pressures continue to intensify with the outbreak of war in Ukraine. Hardening crude oil and industrial commodity prices pose a key risk to sustaining global economic growth and keeping inflationary pressures in check. Crude oil (Brent) price crossed USD 130 per barrel (7 March 2022)—highest since July 2008. CPI inflation in the US hit a 40-year high at 7.5% and a 30-year high of 5.5% in the UK in January 2022. Rising inflationary pressures and slowing economic growth could pose serious downside risks to the global and Indian economies. The counter inflationary response by the US Fed of raising interest rates could see significant flight of capital from emerging economies, including from India.

As per second advance estimates, real GDP is expected to grow 8.9% in FY2021–22 to Rs 147.7 lakh crore, just surpassing the pre-pandemic level of FY2019–20 (Rs 145.2 lakh crore). For FY2022–23, the Union Budget estimates a nominal GDP growth of 11.1%. This assumes an inflation (GDP deflator) of between 3.0–3.5% and oil price of USD 70–75 per barrel. Given the hike in global oil prices, which will likely be sustained for a while, GDP growth will face downside risks and inflation rates would likely be higher. It is pertinent to note that every 10% increase in crude prices pushes up CPI inflation by 0.4% and brings down GDP growth by 0.2%.

Union Budget FY2022–23 was announced with a focus on the long term while at the same time addressing the immediate challenges thrown up by Covid-19. The capex allocation share in expenditure rose to its highest in the past 18 years, reflecting sustained improvement in the quality of government spending. The budget assumes nominal GDP growth of 11.1% for FY2022-23 and pegs fiscal deficit at 6.4% of GDP.

With the waning of the third Covid wave, domestic economic activity is gathering pace. The composite PMI rose to 53.5 in February 2022 from 53.0 in January 2022, with manufacturing PMI (54.9) continuing to be higher than services (51.8). These indicate a rising growth trend in the coming months. After reaching an

all-time high in January 2022, GST collections were recorded at Rs 1.33 lakh crore in February 2022, with robust growth of 17.6% y/y. Railways freight and finished steel production recorded moderate growth whereas increase in electricity demand was modest. Two-wheeler sales continue to decline reflecting weak rural demand. A key positive, non-food bank credit grew 8.3% in January 2022, higher than deposits (first time since August 2019).

CPI inflation touched the upper band of RBI inflation target at 6.0% in January 2022 amid rising food prices. Food prices, which constitute nearly half of CPI basket, rose 5.4% (14-month high). Other sectors showing higher prices increases were fuel (9.3%), clothing and footwear (8.8%) and household goods and services (7.1%). There has been an unprecedented hardening of global oil and commodity prices, which are likely to feed into the Indian economy as well. These may pose a challenge for macroeconomic stability and to the inflation outlook.

Exports have emerged as a key driver of growth. Share of exports in GDP is projected to increase from 18.6% in FY20 (pre-pandemic) to 20.6% in FY22 and 22.7% in FY23. Total exports, including merchandise exports at USD 338 billion and services exports at USD 205 billion, reached USD 543 billion during April 2021 to January 2022. These are 83.5% of the USD 650 billion target for FY2021–22. Growth in the value of India's exports (30.6%) in 2021 has been higher than growth in world exports (26.1%). Sustaining greater growth will help increase India's share in global exports. This trend has to be sustained for maintaining both rate of growth of the economy as also of employment generation.

This edition of *ArthNITI* has a special feature on 'National Mission on Transformative Mobility and Battery Storage'. The mission was set up at NITI Aayog in March 2019 with the objective of driving clean, connected, shared, sustainable and holistic mobility in India. Since then, several initiatives have been taken at both the national and state levels, with 22 states announcing their policies for electric vehicles and 18 already notifying these as well. NITI Aayog is currently leading the formulation of the battery swapping policy and interoperability standards, which will be finalized soon. These initiatives will further accelerate development of the EV ecosystem in India.

As always, I look forward to your feedback on this edition and your suggestions on further improving *ArthNITI*.



Dr Rajiv Kumar,
March 2022,
New Delhi

G20: The Macro Scene

Real Sector

	% Share of World GDP, 2020	GDP Per Capita (\$), 2020	Quarterly GDP Growth (%)*	Inflation (y/y, %)*	Industrial Output Growth (y/y, %)*	Manufacturing (%) of GDP [^] , 2020	Manufacturing PMI*
United States	24.7	63,544	5.4 Dec	7.9 Feb	7.4 Feb	10.9	57.3 Feb
China	17.4	10,500	4.0 Dec	0.9 Feb	4.3 Dec	26.2	50.4 Feb
Japan	5.8	40,113	0.4 Dec	0.9 Feb	-0.5 Jan	20.7	52.7 Feb
Germany	4.5	45,724	1.8 Dec	5.1 Feb	5.4 Jan	17.8	58.4 Feb
United Kingdom	3.2	40,285	6.6 Dec	6.2 Feb	3.2 Jan	8.4	58.0 Feb
India	3.1	1,901	5.4 Dec	6.1 Feb	1.3 Jan	13.0	54.9 Feb
France	3.1	38,625	5.0 Dec	3.6 Feb	0.8 Jan	9.3	57.2 Feb
Italy	2.2	31,676	6.0 Dec	5.7 Feb	0.4 Jan	14.9	58.3 Feb
Canada	1.9	43,242	4.3 Dec	5.7 Feb	-	10.6	56.6 Feb
Korea	1.9	31,489	4.2 Dec	3.7 Feb	4.3 Jan	24.9	53.8 Feb
Russia	1.8	10,127	4.5 Sep	9.1 Feb	8.6 Jan	13.3	48.6 Feb
Brazil	1.7	6,797	1.7 Dec	10.5 Feb	-7.2 Jan	9.8	49.6 Feb
Australia	1.6	51,812	4.2 Dec	3.5 Feb	1.4 Dec	5.7	57.0 Feb
Mexico	1.3	8,347	1.1 Dec	7.3 Feb	4.3 Jan	17.2	48.0 Feb
Indonesia	1.2	3,870	5.0 Dec	2.1 Feb	-	19.9	51.2 Feb
Turkey	0.9	8,538	9.1 Dec	54.4 Feb	8.2 Jan	18.8	50.4 Feb
Saudi Arabia	0.8	20,110	6.8 Dec	1.6 Feb	11.1 Jan	13.0	56.2 Feb
Argentina	0.5	8,442	11.9 Dec	52.3 Feb	-0.3 Jan	13.9	-
South Africa	0.4	5,091	1.7 Dec	5.7 Feb	2.9 Jan	11.5	50.9 Feb
European Union	17.9	33,928	4.6 Dec	6.2 Feb	-	13.9	57.9 Feb

Source: CEIC, World Bank, * Calendar Year 2021. ^Japan (2018) & US (2019) values. PMI below 50: contraction; above 50: expansion. For KSA & RSA, PMI reported for whole economy. No new industrial production releases from Indonesia & Canada since March 2020.

Financial and External Sector

	Interest Rates		External Sector [^] (% of GDP, 2020)					
	10Y Bond	Bank Lending Rate	LCU/\$* (%,y/y)	Current Account	Trade	Exports	Imports	Inward Revenue (\$ Bn)
USA	1.9	3.3	1	-3.1	26.3	11.7	14.6	3,092
China	2.8	4.4	6.34 (-1.8)	1.9	34.5	18.5	16.0	2,993
Japan	0.2	1.5	115.28 (9.4)	3.5	34.9	17.5	17.4	1,094
Germany	0.2	1.8	0.88 (6.6)	7.0	81.8	43.8	38.0	1,914
India	6.7	8.8	74.97 (3.0)	1.3	36.4	18.1	18.3	912
UK	1.5	1.8	0.74 (2.4)	-3.5	55.1	27.3	27.8	591
France	0.7	1.4	0.88 (6.6)	-1.9	58.3	28.0	30.3	950
Italy	1.8	4.0	0.88 (6.6)	3.7	55.3	29.5	25.8	647
Brazil	6.1	25.3	5.20 (-4.0)	-1.7	32.3	16.9	15.4	575
Canada	1.8	2.5	1.27 (0.1)	-1.9	59.9	29.0	30.9	650
Russia	12.5	20.0	77.34 (4.0)	2.9	46.1	25.5	20.6	433
Korea	2.7	3.5	1,119.12 (7.9)	4.6	70.1	36.9	33.2	253
Australia	2.1	6.5	1.39 (8.2)	2.5	44.0	23.9	20.1	346
Mexico	7.7	13.7	20.46 (0.6)	2.5	78.0	40.1	37.9	486
Indonesia	6.7	8.6	14,351.10 (2.2)	-0.4	33.2	17.2	16.0	193
Saudi Arabia [`]	0.6	0.9	3.75 (0.0)	-2.8	50.6	26.3	24.3	211
Turkey	17.7	28.9	13.63 (92.6)	-5.2	60.9	28.6	32.3	208
Argentina [#]	49.0	48.0	108.70 (19.6)	0.8	30.5	16.6	13.9	69
South Africa	9.8	7.5	15.22 (3.0)	2.2	56.0	30.5	25.5	101
EU	0.9	-	0.88 (6.6)	2.6	84.6	43.9	40.7	8,701

As of 28.02.2022 unless otherwise stated. Source: CEIC, World Bank, Central Banks & Trading Economics. # 7Y bond. * - sign indicates appreciation. Inward revenue = export of goods & services+ primary income+ remittances. ^ US & Japan 2019 values. `52 week bond yield & 3 month interbank rate. .

Commodities and Markets

Data as of 28th Feb 2022		
Commodity	Price (\$)	Price (INR)
Copper (MT)	9,943.2	7,76,850
Iron Ore (dmtu)	142.8	6,160 [^]
Aluminium (MT)	3,245.7	2,82,500
Steel (Rebar, MT)	590	45,110
Brent Crude Oil (bbl)	95.8	6,895
Coal (MT)	196.4	2,747 [^]
Natural Gas, US (MMBtu)	4.7	336.5

Source: \$ Prices from World Bank Commodity Prices Pink Sheet. London Metal Exchange. Rs. Prices from MCX, CEIC. ^NMDC/CIL Price (excl taxes etc).

	28th Feb 22	28th Feb 21
DJI	33,892.6 (9.6)	30,932.4
NASDAQ 100	14,237.8 (10.3)	12,909.4
SSE Composite	3,462.3 (-1.3)	3,509.1
Nikkei 225	26,526.8 (-8.4)	28,966.0
FTSE 100	7,361.6 (13.9)	6,465.6
Hang Seng	22,713.0 (-21.6)	28,980.2
STI	3,242.2 (2.4)	3,165.3
BSE Sensex	56,247.3 (14.6)	49,100.0

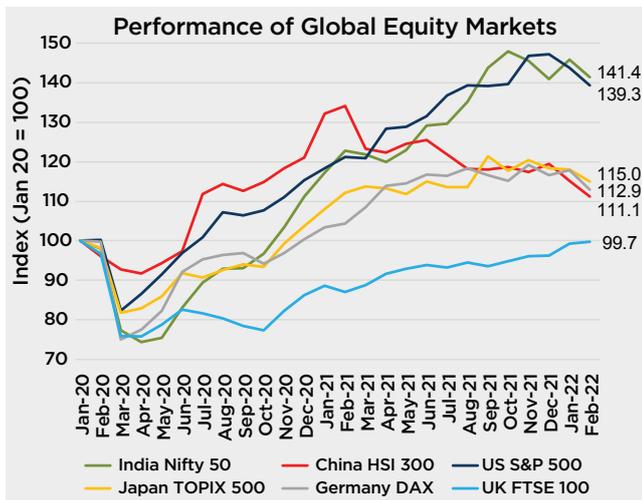
Source: Yahoo Finance. % change from last year in brackets.

Markets

With a rise in Omicron-related cases, the global financial market volatility increased, reopening of businesses was delayed, and the inflation outlook was clouded. The outlook of financial markets further deteriorated with the outbreak of war in Ukraine.

With price pressure persisting more than anticipated, major central banks are taking steps toward policy normalization. Market indicators point to expectations of worsening inflationary pressure, albeit with considerable regional differentiation.

The Indian equity market has performed the second best (after the US), amongst major countries (the US, UK, Germany, Japan and China) since the beginning of 2020. In 2021, the US S&P 500 was up 28.8% while the Dow Jones Industrial Average (DJIA) gained 23.4%. Moving into 2022 (at the end of February), the S&P 500 and DJIA were down by 8.8% and 6.5%, respectively. After gaining 14.3% in 2021, the benchmark index of the UK (FTSE) remains below the January 2020 level and declined by 0.7% in 2022 (as on 28 February 2022).



Source: CEIC

China's equity market declined in 2021 due to slowing economic growth and regulatory crackdowns in certain sectors. China's large-cap CSI 300 Index fell roughly 5.0% in 2021. Hong Kong, home of numerous Chinese tech and other giants, saw its Hang Seng Index (HSI300) decline 15.0% in 2021. The decline in Chinese equity markets has continued in 2022. In February 2022, Chinese stocks fell to 19-month low, extending losses followed by a sharp sell-off on worries

over slowing domestic economic growth and global factors. The Japanese stocks enjoyed a strong year in 2021, with the TOPIX index rising 10.4%. Heading into 2022, investors remain cautiously optimistic about the potential for stocks to continue their upwards trajectory. The Japanese stock market (TOPIX 500) ended February 2022 with a 2.6% decline since the beginning of 2022. India's Sensex and Nifty 50 increased by 21.7% and 23.8%, respectively, in 2021, the second highest among major economies. Since the beginning of 2022, equity returns were negatively impacted due to a surge in Omicron cases and subsequently with the outbreak of the war in Ukraine. The Sensex and Nifty 50 declined by 5.0% and 4.7%, respectively, as at end-February. Foreign portfolio investments (FPI) recorded net outflows of USD 8.9 billion during January–February 2022.

In the bond market, the US 10-year treasury yield, which is the benchmark and most widely traded bond, ended 2021 with gains of 59.7 basis points at 1.52%. However, adjusting for inflation, the real 10-year US treasury yields for 2021 were negative at -3.50%. In 2022, as at end-February, the US 10-year treasury yields intermittently increased to 1.83%. The yield on UK 10-year G-sec yield fell to 1.48% by 28 February 2022 as the Russia-Ukraine conflict boosted demand for safe-haven debt. This yield had peaked at 1.58% on 15 February 2022 after the Bank of England raised the policy rate from 0.25 to 0.50% on 2 February 2022. The yield on Japan's 10-year government bond touched 0.23% on 10 February 2022, the highest since 2016, leading the Bank of Japan to announce buying of an unlimited amount of 10-year JGBs at 0.25% to prevent rising global yields from pushing up domestic borrowing costs. Indian 10-year G-sec yield inched up to 6.77% by end-February 2022, tracking a steep rise in crude oil prices. As India imports more than two-thirds of its oil needs, rising crude oil prices pose significant risk for increase in inflation, worsening of current account deficit and hardening of G-sec yields.

Commodities were the best-performing asset class in 2021. Coal was the topmost performing commodity, providing the single best annual return of any commodity over the past 10 years at 160.6%. Crude oil WTI ended the year 2021 with an average price of about USD 68 per barrel, as compared to the average price of USD 39 per barrel in 2020. Among industrial metals, aluminium prices increased by 42.0% while copper was higher by 26.0% in 2021. However, precious metals were in the red for 2021 despite rising inflation across goods and asset prices. Gold had returns of -3.6% in 2021. Since the beginning of 2022, there has been significant

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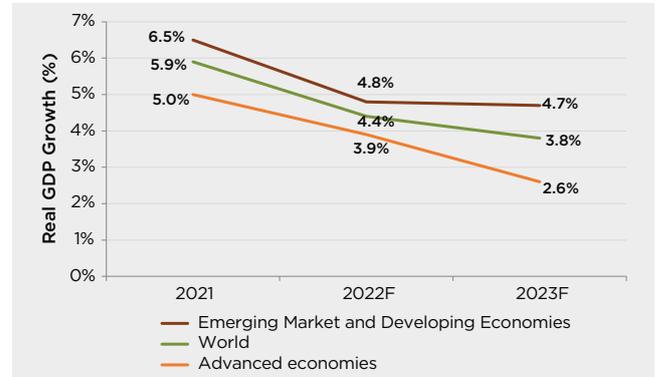
hardening in global commodity markets, which has been further accentuated by the Russia-Ukraine conflict. Crude oil (brent) price crossed USD 100 per barrel in February 2022 for the first time since 2014. In February 2022, prices of agriculture commodities, metals and minerals and precious metals rose 4.5%, 4.7%, and 2.2%, respectively. Prices of energy and non-energy commodities rose to 7.7% and 4.2%, respectively, by end-February 2022.

As the global environment remains highly volatile and uncertain due to diverging monetary policy stances, geopolitical tensions, elevated crude oil prices and persistent supply bottlenecks, emerging economies are vulnerable to destabilizing global spillovers on an ongoing basis. The ability to forecast the future course of the global economy is contingent on the evolution of the virus and the ongoing conflict between Ukraine and Russia. Thus, policymakers face daunting challenges even as recovery from the pandemic remains incomplete.

Russia-Ukraine Conflict, Surging Inflation and Lingering Supply Bottlenecks Disrupt Global Recovery

Global economic growth is expected to moderate from 5.9% in 2021 to 4.4% in 2022 and 3.8% in 2023, as per the January 2022 World Economic Outlook by the International Monetary Fund (IMF). The IMF's January forecast is 50 basis points lower than its last projection (October 2021), largely reflecting forecast markdowns in the US and China. A revised assumption removing the Build Back Better fiscal policy package from the IMF's baseline, earlier withdrawal of monetary accommodation, and continued supply shortages produced a downward revision for the US while pandemic-induced disruptions related to the zero-tolerance Covid-19 policy and protracted financial stress among property developers induced a downgrade in China's forecast. In addition, the IMF has warned that the Russia-Ukraine conflict and the subsequent sanctions imposed upon Russia will have a 'severe impact' on the global economy.

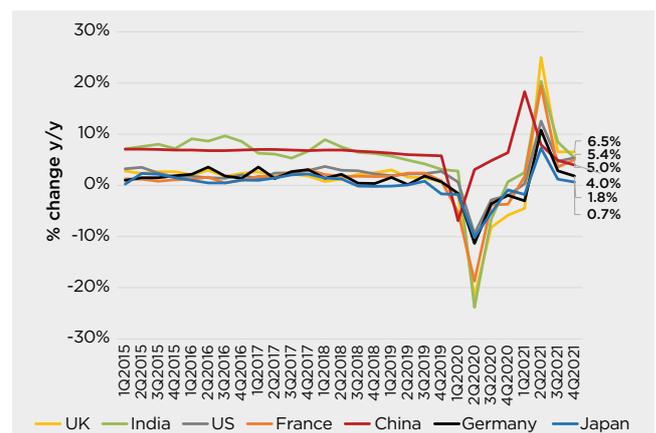
Figure 1: GDP growth projections



The UK economy grew by 6.5% in the final quarter of 2021, registering an annual real GDP growth rate of 7.5% in 2021. This expansion was the largest since 1941 and made the UK the fastest-growing advanced economy in 2021. In a similar vein, France recorded the strongest economic growth in 52 years, growing 7% in 2021. India registered real GDP growth of 5.4% in the fourth quarter of 2021 (October–December 2021), down from 8.4% in the previous quarter. The dip in growth momentum may be attributed to the fading base effect. Germany registered 1.4% y/y growth in the final quarter of 2021 (down from 2.8% in the previous quarter), as a drop in consumer spending and supply constraints on manufacturing weighed on overall output.

As the US government provided nearly \$6 trillion in pandemic relief, the US economy grew 5.7% in 2021, the strongest since 1984. Japan's economy rose 1.7% in 2021, turning positive for the first time in three years. On the other hand, as China grapples with a deepening property crisis, constraints on energy consumption, shipping disruptions and reduced domestic spending, real GDP growth fell to 4.0% in the final quarter of 2021, the weakest growth the country has seen in the past 1.5 years.

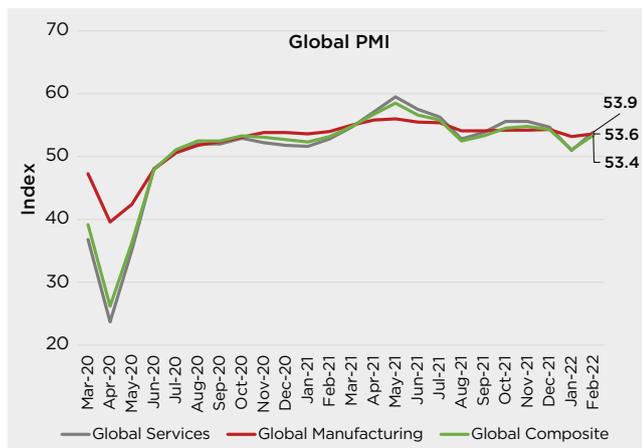
Figure 2: Real GDP growth of top 7 economies



The volume of global exports has been estimated to grow 9.3% in 2021 (vs -7.9% in 2020) while global trade volume growth is expected to moderate to 6.0% in 2022 by the IMF. As per UNCTAD's Global Trade Update (February 2022), the value of global trade reached a record level of USD 28.5 trillion in 2021, an increase of 25% on 2020 and 13% higher compared to 2019, before the Covid-19 pandemic struck. In line with the IMF's forecast, the UNCTAD report indicates that trade growth will be slow during the first quarter of 2022.

The JPMorgan Global Composite PMI in February 2022 edged up to 53.4 from January's 18-month low of 51.1, signalling an accelerated rate of global expansion. Global manufacturing PMI rose to a two-month high of 53.6 (from 53.2 in January 2022) as growth of output, new orders and employment all strengthened. At 53.9 (January 2022: 51.0), Global Services PMI also rose.

Figure 3: Global PMI



As the pandemic enters its third year, global economic recovery is jeopardized by a series of challenges such as inflation, mounting debt, supply constraints and policy uncertainty. Inflation continued to rise throughout the second half of 2021 and reached record levels in several major economies. CPI inflation hit a 40-year high at 7.5% in the US and 30-year high of 5.5% in the UK in January 2022. It is also important to note that both energy and non-energy commodities soared in February 2022, rising 63.4% y/y and 22.7% y/y, respectively.

The FAO (Food and Agriculture Organization) Food Price Index (FFPI) averaged 140.7 points in February 2022, up 5.3 points (3.9%) from January and as much as 24.1 points (20.7%) above its level a year ago. This represents a new all-time high, exceeding the previous top of February 2011 by 3.1 points. The February rise was led by large increases in vegetable oil and dairy price sub-indices. Rise in global food prices could lead

to higher imported inflation in India. It is important to note that India is the largest buyer of vegetable oils in the world, importing about 14-15 million mt/year. Palm oil accounts for more than half of those imports.

Figure 4: Global Commodity Prices



Oil prices soared to their highest since 2008 with Brent at USD 139.1/barrel and WTI at USD 130.5/barrel on 6 March 2022 on the back of the Russia-Ukraine conflict that has disrupted supply in an already-tight market. US Energy Information Administration (EIA) forecasts price of Brent crude at USD 82.9/barrel and USD 68.5/barrel for 2022 and 2023, respectively. High crude prices are a huge negative for India, which imports around 85.0% of its annual crude oil requirement. The price rise will have direct impact on India's foreign exchange outflow, fiscal deficit and inflation and also potentially increase the cost of essential goods and hurt consumer spending.

In response to inflationary pressures, the world's leading central banks are tightening their monetary policy stance. Bank of England raised interest rate to 0.5% on 3 February 2022. In a similar vein, the US Fed Chair signalled interest rate increase in March 2022 citing rising inflation and a strengthening labour market in the January 2022 Federal Open Market Committee (FOMC) meeting. While India must remain wary of a Taper Tantrum 2.0, the economy is better prepared as compared to 2013. India's external sector has stronger fundamentals in the form of robust exports, low CAD and high forex reserves. Exports of goods & services stood at USD 547.9 billion in April 2021–January 2022, accounting for 84.2% of India's USD 650 billion export target for FY22. Forex reserves are as high as USD 632 billion as at January 2022, compared to USD 275 billion in 2013. India's current account balance (CAD) recorded a deficit (USD -9.6 billion) in Q2FY22 at 1.3% of GDP, after being in the surplus for FY21 and Q1FY22. CAD lies below the threshold of 2.5-3.0%

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of GDP and is currently not worrisome. However, the IMF has pointed out that with interest rates rising, low-income countries, of which 60% are already in or at high risk of debt distress, will find it increasingly difficult to service their debts.

The IMF reports that global death toll has risen to 5.5 million deaths and the pandemic's accompanying economic losses are expected to be close to USD 13.8 trillion through 2024 relative to pre-pandemic forecasts. With regards to global unemployment, latest forecast by the International Labour Organization (ILO) projects global unemployment to stand at 207 million in 2022, surpassing its 2019 level by about 21 million. The ILO report also highlights that the pandemic is structurally altering labour markets in such ways that a return to pre-crisis baselines could be insufficient to make up for the damage caused by the pandemic.

As the pandemic persists, policymakers must carefully monitor a broad range of economic indicators, prepare for unforeseen emergencies, and be ready to execute policy changes at short notice.

Indian Macro

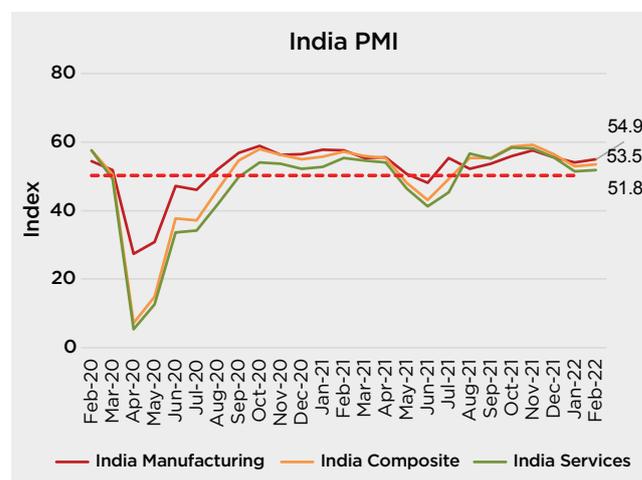
The economic impact of the third wave in India has been muted due to better preparedness and fewer restrictions imposed by the states. The pace of growth revival in India remains strong due to various structural reforms such as PM Gati Shakti, the National Infrastructure Pipeline and the National Monetization Pipeline, and the Production-Linked Incentive scheme.

Real GDP grew by 5.4% in the October–December quarter of 2021–22 (Q3FY22). As per the second advance estimates of national income released by the National Statistical Office, India's real GDP is estimated to grow by 8.9% in FY2021–22 after contracting 6.6% in FY2020–21. For FY2022–23, the Economic Survey has projected real GDP growth to be in the range of 8.0–8.5%, while the Reserve Bank of India has forecasted 7.8% growth in its monetary policy review on 10 February 2022.

The unifying theme of the Union Budget 2022-23 was to lay a solid foundation for achieving the vision of a digitally empowered India with world-class infrastructure, globally comparable education and health sectors. The priorities outlined in the budget aims at integrated infrastructure, inclusive development, productivity enhancement & investment (with focus on digitalisation and sustainability), and financing of growth.

In the Union Budget, expenditure and revenue growth for FY2022–23 over FY2021–22(RE) is estimated at 4.6% and 5.0%, respectively, with fiscal deficit for FY2022-23 targeted at 6.4% of GDP. The budget highlighted the focus of Government to upgrade public infrastructure through capital spending and it will also help to crowd-in private investment. Capex allocation rose to its highest in 18 years as a percentage of the total expenditure at 19.0% from 15.9% in the current fiscal, reflecting sustained improvement in the quality of expenditure. Capex saw a 24.3% growth in FY2022–23 over FY2021–22(RE). Not losing the focus on debt sustainability, the government has reiterated its commitment to the fiscal glide path of 4.5% of GDP by FY2025–26.

The Purchasing Managers' Index (PMI) is a key indicator of economic activity and depicts a 3–6 months' forward trend. Manufacturing PMI (54.9 in February 2022 vs 54.0 in January 2022) and Services PMI (51.8 in February 2022 vs 51.5 in January 2022) continue to remain in the expansion zone. Business optimism in the manufacturing sector improved to a 4-month high in February 2022. New orders increased at quicker rates among services companies and goods producers, with the latter seeing a sharper rise.

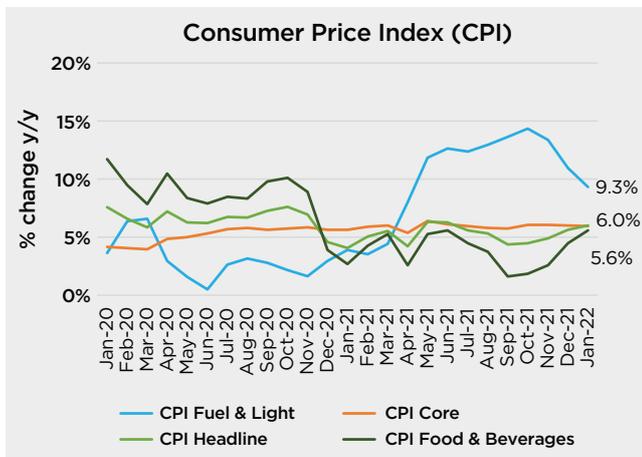


Source: IHS Markit

Retail inflation (CPI Headline) rose to a 7-month high of 6.0% (touched the upper bound of RBI's inflation target) in January 2022 from 5.7% in December 2021 amid soaring food prices. Food prices, that constitute nearly half of CPI basket, rose 5.6% in January 2022 from 4.5% in December 2021. Rise in prices of non-food segments like clothing and footwear (8.8%), household goods and services (7.1%) and recreation and amusement (7.0%) have added to the inflationary pressure for January 2022. Fuel inflation moderated to 9.3% y/y in January 2022 from 11.0% y/y in December

2021 but continues to remain high. Core (non-food and non-fuel) inflation remained elevated at 6.0% for January 2022.

Wholesale price inflation (WPI) has been rising in double digits since April 2021, and rose 12.9% in January 2022 (December 2021: 13.5%). The increase in wholesale inflation was driven by the primary articles' category (mainly food and crude, petroleum and natural gas) which rose 13.9% y/y in January 2022. India needs to be wary of imported inflation due to elevated food and commodity prices globally.



Source: MoSPI

The Index of Industrial Production (IIP) growth was recorded at 0.4% y/y in December 2021, a 10-month low, on the back of a decline in manufacturing (-0.1% y/y), capital goods (-4.6% y/y), consumer durables (-2.7% y/y) and non-durables (-0.6% y/y) and also due to an unfavourable base. The January 2022 core sector output (IIP core) slowed to 3.7% y/y, on the back of a slowdown in fertilizers (-2.0% y/y), crude oil (-2.4% y/y) and electricity (0.5% y/y).

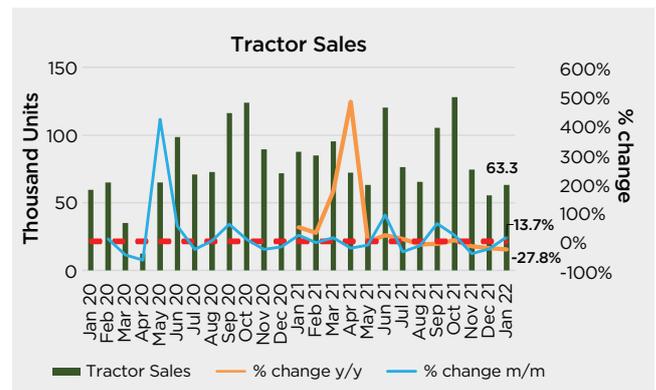
High frequency indicators for the month of February 2022 presents a mixed picture. Goods and Service Tax (GST) collections rose 17.6% y/y in February 22, marking the fourth month of collections being more than Rs 1.3 lakh crore. GST cess crossed the Rs-10,000-crore mark for the first time, signaling recovery of key sectors. Steel consumption and electricity demand rose 7.2% y/y (February 2022 vs February 2021) and 1.3% y/y (January 2022 vs January 2021), respectively. Indicators such as tractor sales (-27.8% y/y – January 2022 vs January 2021) that help to gauge rural demand registered a decline. Global semiconductor shortages and supply disruptions continue to impact the automobile sector, with domestic passenger vehicle sales (-8.1% y/y - January 2022 vs January 2021) and two-wheeler sales

(-21.1% y/y - January 2022 vs January 2021) showing a decline as compared to the previous year. However, commercial vehicle sales rose 15.1% y/y in January 2022, due to the government's push for infrastructure spending, especially road construction.

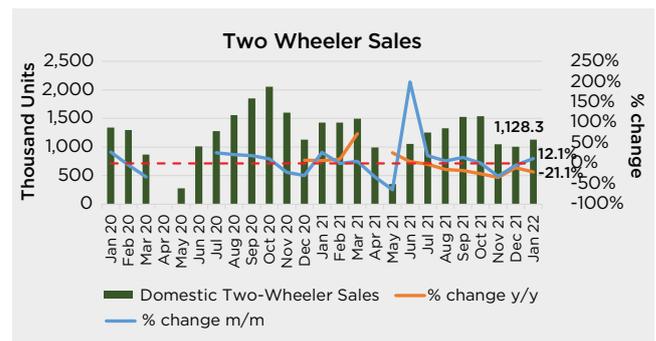
Services sector indicators like rail passengers (44.4% y/y) and rail freight traffic (7.7% y/y) rose in January 2022. While air passengers (-39.2% - January 2022 vs December 2021) and ports cargo traffic (-6.7% - February 2022 vs January 2022) showed a sequential decline with a spike in Covid cases.

High logistics cost, supply chain disruptions, elevated energy prices and global financial volatility pose downside risks. Positives that will enable India to move ahead are sustained rise in exports, pick up in non-food credit, higher tax collections and other measures taken by the government to improve the ease of doing business in India.

India's High Frequency Indicators

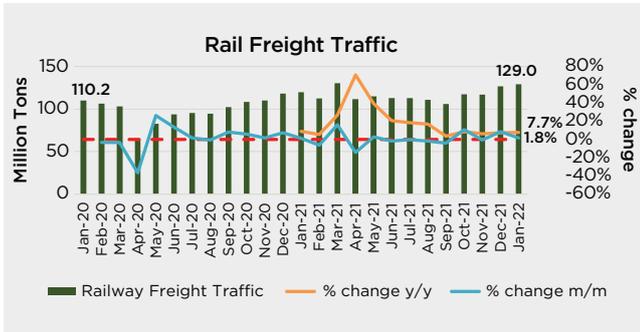


Source: Tractor Manufacturer Association

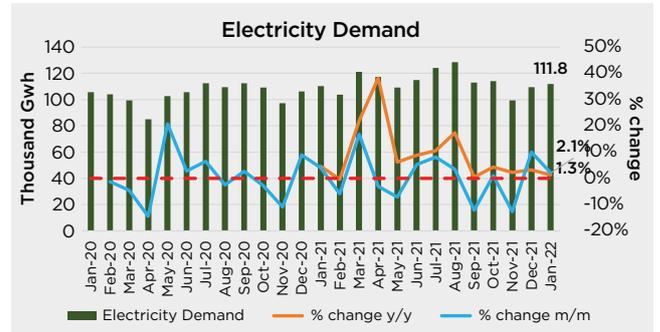


Source: Society of Indian Automobile Manufacturers

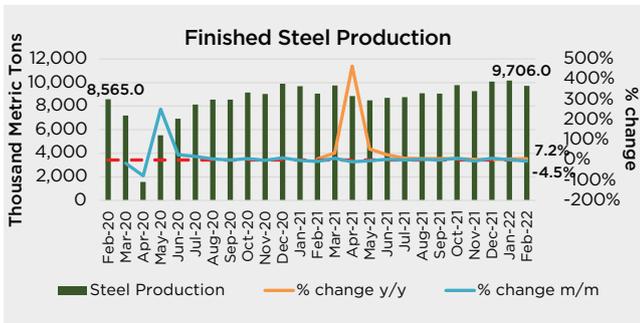
1 THE BIG PICTURE



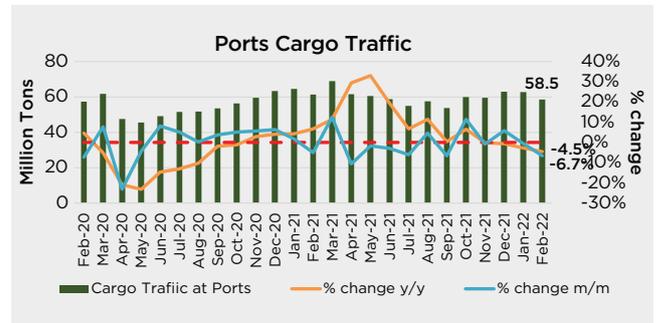
Source: Ministry of Railways



Source: Central Electrical Authority

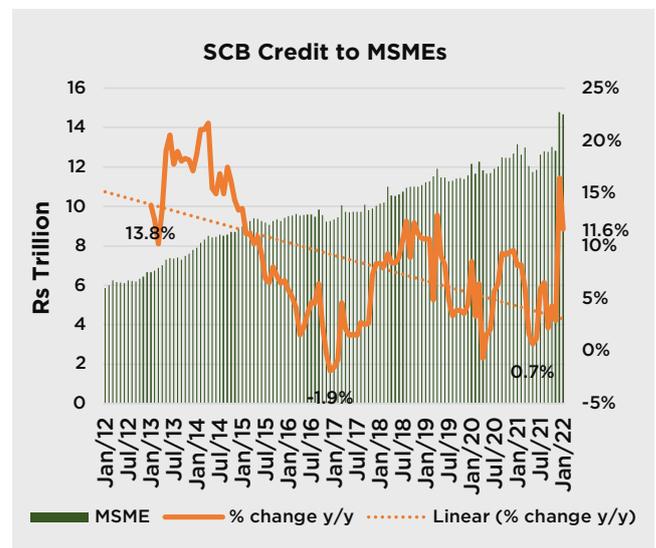
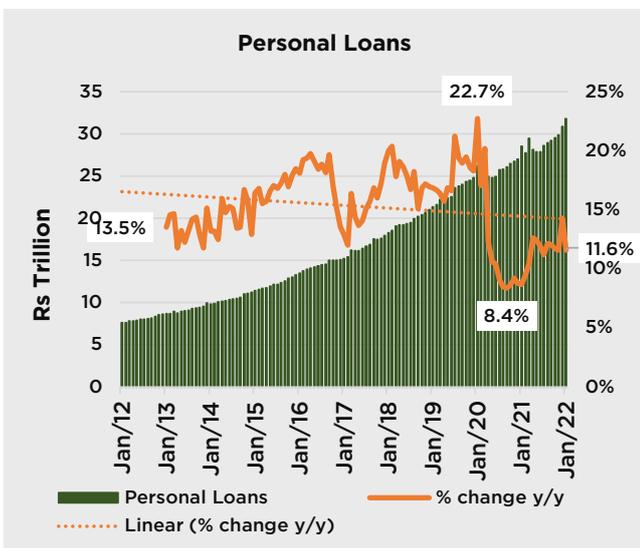
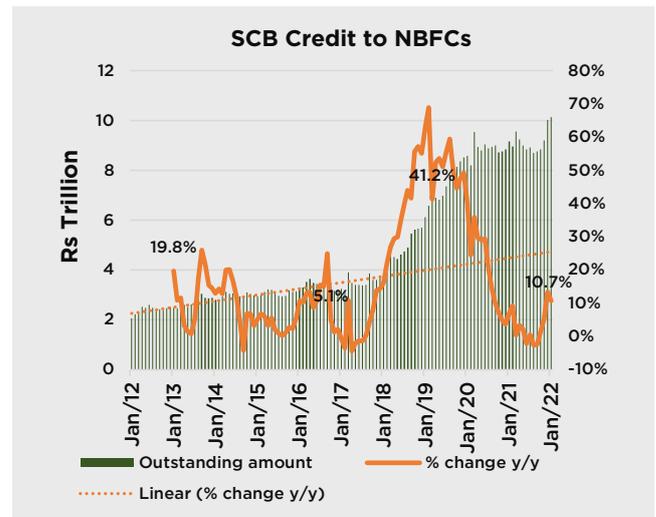
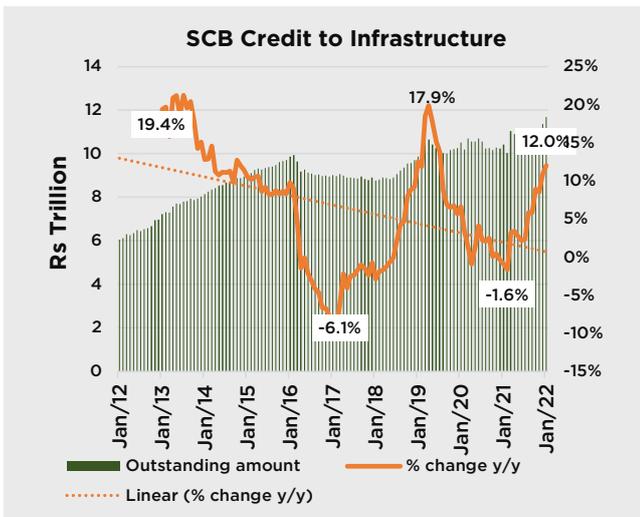
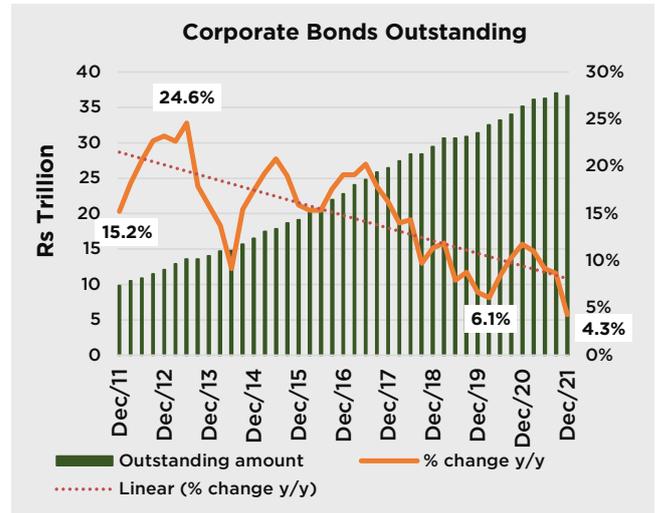
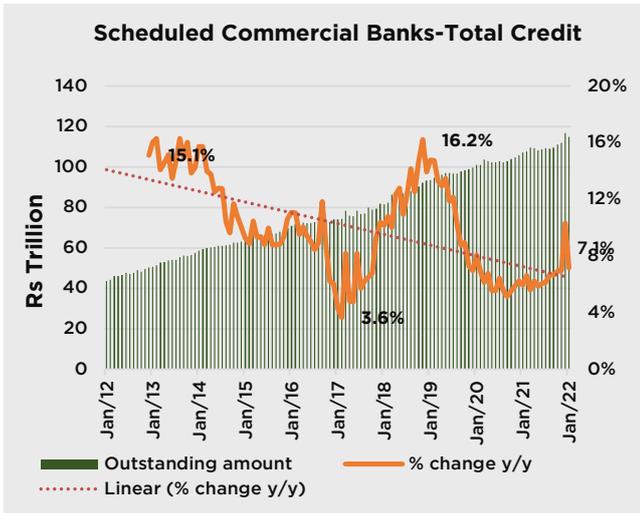


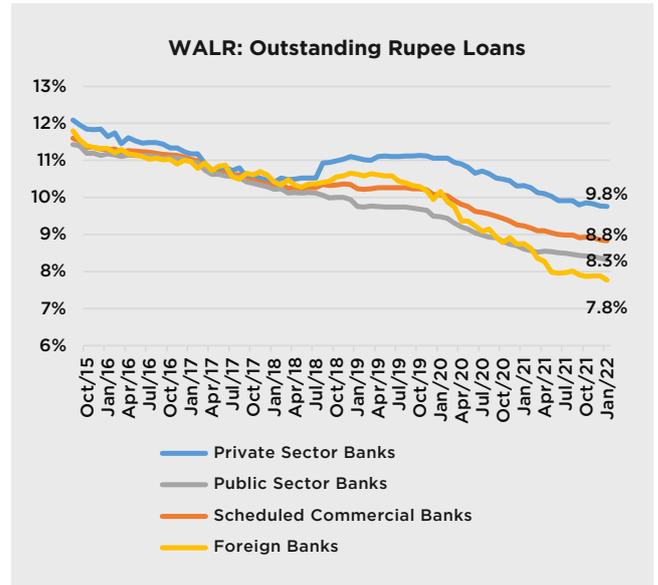
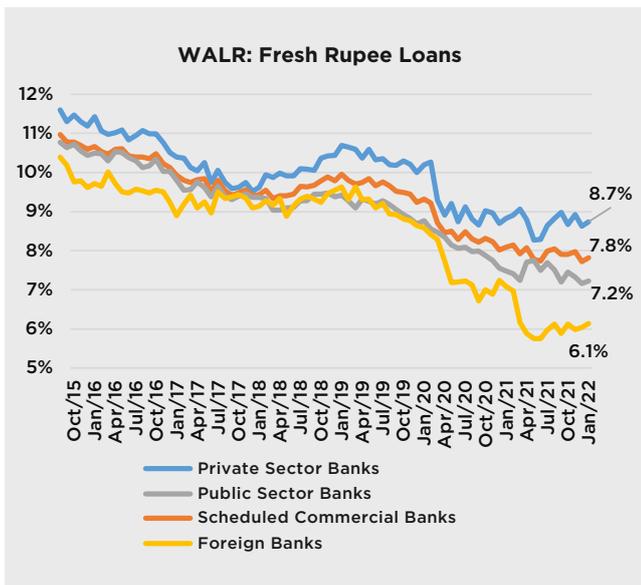
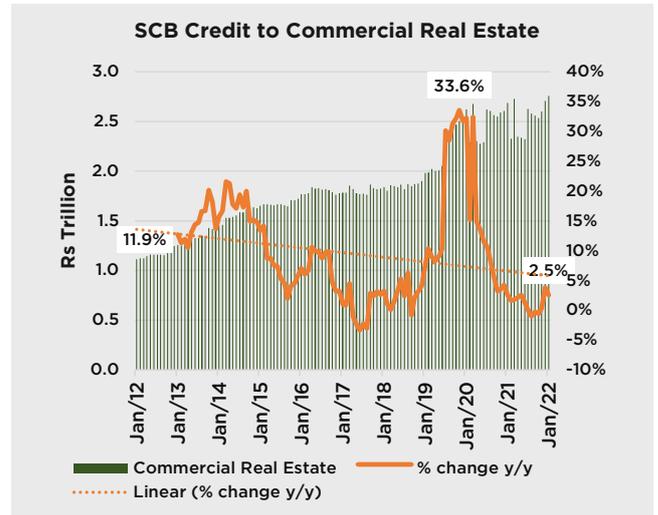
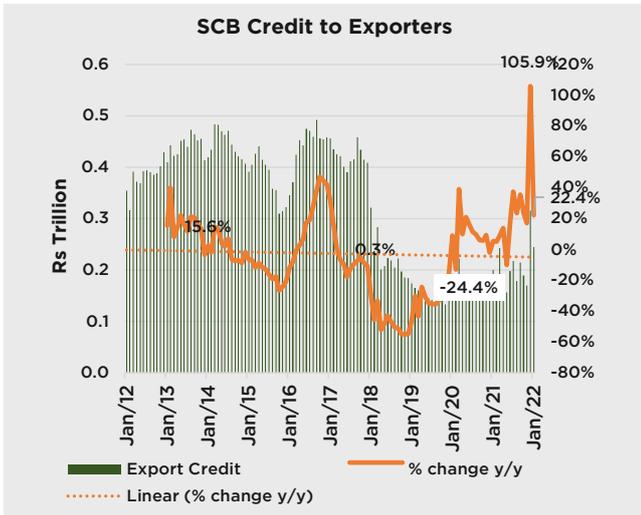
Source: Joint Plant Committee



Source: Indian Ports Association

Indian Credit Scenario





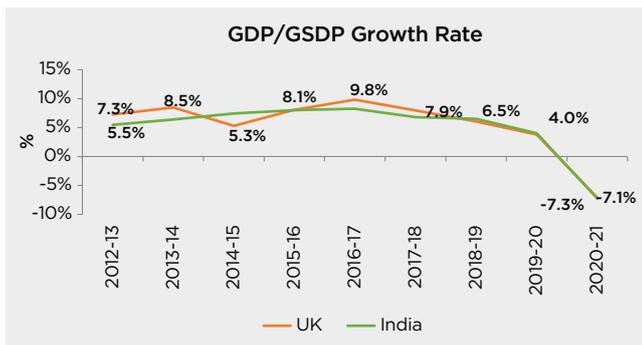
Uttarakhand

Uttarakhand is located in the foothills of the Himalayas. It has a geographical area of 53,483 sq.km and a population of 1.1 crore. It shares international borders with China (Tibet) in the north and Nepal in the east. The state is a rich source of natural resources. Its natural terrain and climate provide several opportunities for floriculture and horticulture. The vast water resources available are also favourable for hydropower. There are two administrative divisions and a total of 13 districts.

Economic Profile

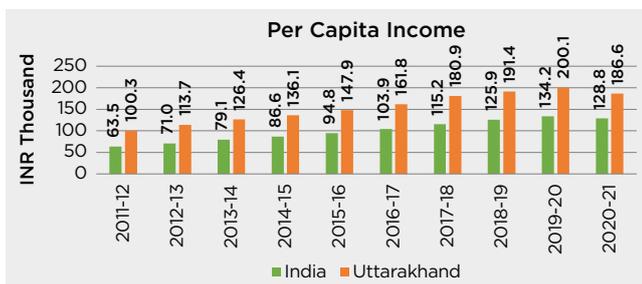
Uttarakhand is one of the fastest growing states in India thanks to the massive growth in capital investment arising from conducive industrial policy and generous tax benefits. IN FY21, Uttarakhand's Gross State Domestic Product (GSDP) was Rs. 2.4 lakh crore while its contribution to the national GDP was about 1.2%. Per capita incomes are higher in Uttarakhand (Rs.186.6 thousand) than the national average (Rs.128.8 thousand).

Figure 1: Growth rates of Gross Domestic Product & Gross State Domestic Product



Source: Directorate of Economics and Statistics, UK and MOSPI (2021)

Figure 2: Per Capita Income in India and Uttarakhand

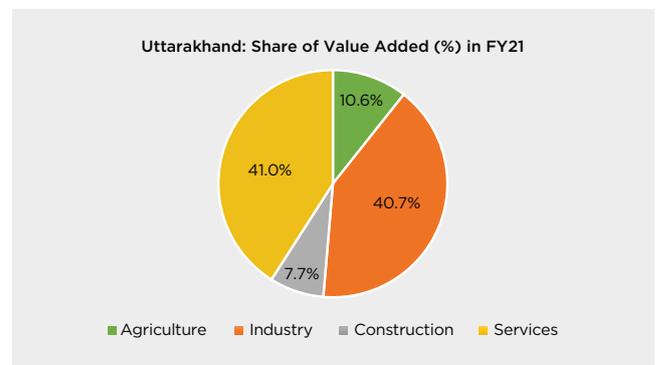


Source: Directorate of Economics and Statistics, UK and MOSPI (2021)

As witnessed at the national level, a sharp decline in the state's growth rate of GSDP was observed in FY21 on account of the pandemic.

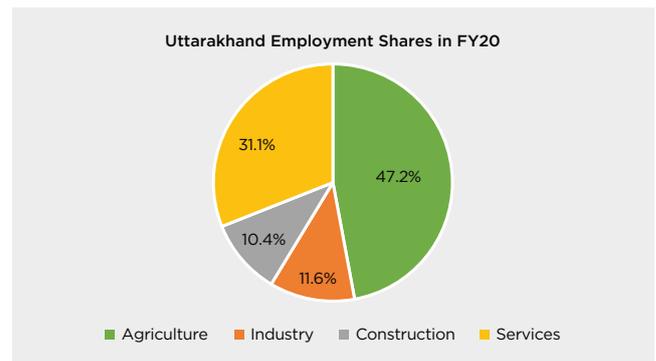
Agriculture is the largest employer in the state, employing 47.2% of the workforce, followed by services, industry and the construction sector. This mirrors the sectoral composition of national GDP. The share of agriculture in the state's Gross Value Added (GVA), however, is just 10.6%.

Figure 3: Sectoral composition of Gross Value Added (GVA) in Uttarakhand in FY21



Source: National Accounts Statistics 2021, MOSPI

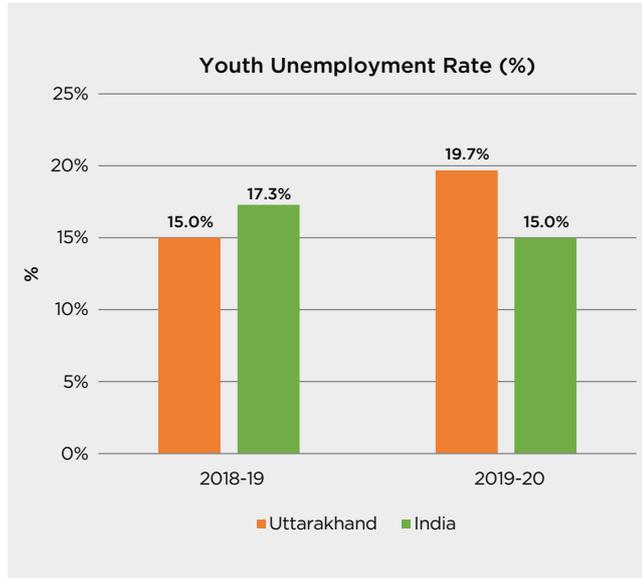
Figure 4: Sectoral composition of Employment in Uttarakhand in FY20



Source: National Accounts Statistics 2021, MOSPI, PLFS 2019-20

Youth unemployment in the state is higher than the national average. Self-employment is a predominant form of employment in hill districts of Uttarakhand, therefore, the opportunities for regular salaried employment are extremely limited in the region. Out-migration is another major challenge in the state. Uttarakhand has around 16,500 villages, of which 734 have become 'Ghost Villages'. Some of the reasons for out-migration are uneconomical landholdings, lack of employment opportunities in hill regions and rising aspirations of the educated youth.

Figure 5: Youth Unemployment Rate (%)



Source: PLFS 2019-20

Agriculture and Allied activities

As mentioned above, agriculture is a significant contributor to Uttarakhand's Gross State Domestic Product with a large amount of labour share employed in the sector. Uttarakhand has four agro-climatic zones covering six altitudinal farming approaches, implying a huge potential to grow a wide variety of crops within the State. Major crops grown in the state are rice, wheat, sugarcane, maize, soybean, pulses, oilseeds and a number of fruits and vegetables.

Despite being cereal surplus, more area remains concentrated in wheat and rice. Uttarakhand's climatic conditions support horticulture production and the state could further utilize high-tech horticulture and secondary agriculture (for eg: mushrooms) to provide additional employment opportunities for rural communities. Horticulture presents immense potential for Food Processing Industries in backward regions. There are ample opportunities of increasing production and productivity, especially in the field of pulses and oilseeds, availability of cultivable waste land, conservation of rain water harvesting activities. There is also a good opportunity of organic farming, diversification of agriculture, post-harvest technologies, strengthening of market interventions, and use of farm machinery to make the agriculture more profitable occupation.

Industry

Despite challenges for industrial growth, the State has been persistent in implementing policy measures in segments related to Micro, Small, Medium Enterprises (MSME), Ease of Doing Business, and overall growth of the industry.

Uttarakhand has improved its Ease of Doing Business ranking from the 23rd position in 2015 to 11th in 2019. In addition, Uttarakhand ranked 19th in Logistics Ease Across Different States (LEADS) Index 2019 among 22 states by Ministry of Commerce and Industry. Policy initiatives are underway to clear the hurdles on the path towards industrial growth by promoting a conducive market environment and these have been yielding results on the ground. On the **India Innovation Index (2021)**, Uttarakhand ranked 2nd while it secured the 1st rank on the **Export Preparedness Index (2021)** among the North-east and hill states. To translate the Atma Nirbhar Bharat Abhiyan into a reality, the next generation of reforms relating to minimizing regulatory burden on businesses and citizens are being taken up by the State in mission-mode. A key priority going forward would be to make the Government-to-Business and Government-to-Citizen Interfaces online, transparent and time-bound.

Infrastructure

Uttarakhand has a strong social and industrial infrastructure, virtual connectivity with over 39,000 km of road network, two domestic airports, 345.2 km of rail routes and an installed power capacity of 3,333.35 MW (as of February 2018). The state's two domestic airports—one at Jolly Grant in the Dehradun district and another at Pant Nagar in the Udham Singh Nagar district have grown significantly over the years. Going forward, the state's railway network could be further developed and expanded as it would facilitate industrial development through improvement in logistics, reduce road congestion, boost tourism while being more environment friendly.

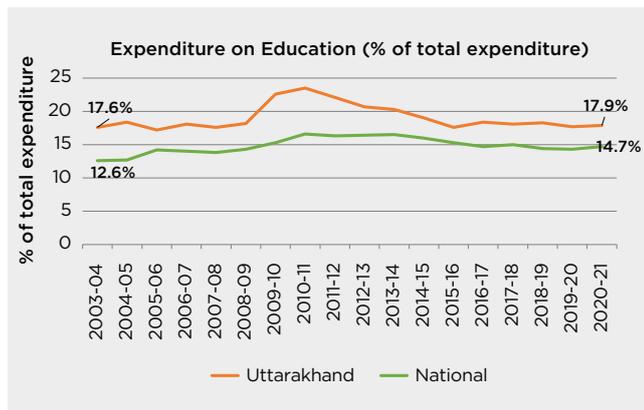
The state has a well-developed communication network including both wired and wireless connectivity. Digital connectivity will be crucial to spur and sustain growth in the state in the long-run. In line with this objective, in February 2021, the Union government cleared a proposal to implement the Bharat Net 2.0 project in Uttarakhand, which will connect about 12,000 villages of the state with internet. This bold move to promote

digital connectivity will play a major role in increasing service-sector employment (especially in the BPO sector) and help in curbing the out-migration.

Social & Sustainable Development

Uttarakhand is a prominent education hub with several notable schools and universities located in the capital city of Dehradun and Nainital. The share of expenditure on education in Uttarakhand (17.9%) is higher than the national average (14.7%). In a similar vein, the Gross Enrolment Ratio (GER) is higher than the national average under all categories of school education (primary to higher education). However, the Pupil Teacher Ratio (PTR) under the same categories is below the national numbers.

Figure 6: Expenditure on Education as a % of Total Expenditure



Source: Reserve Bank of India State Finance

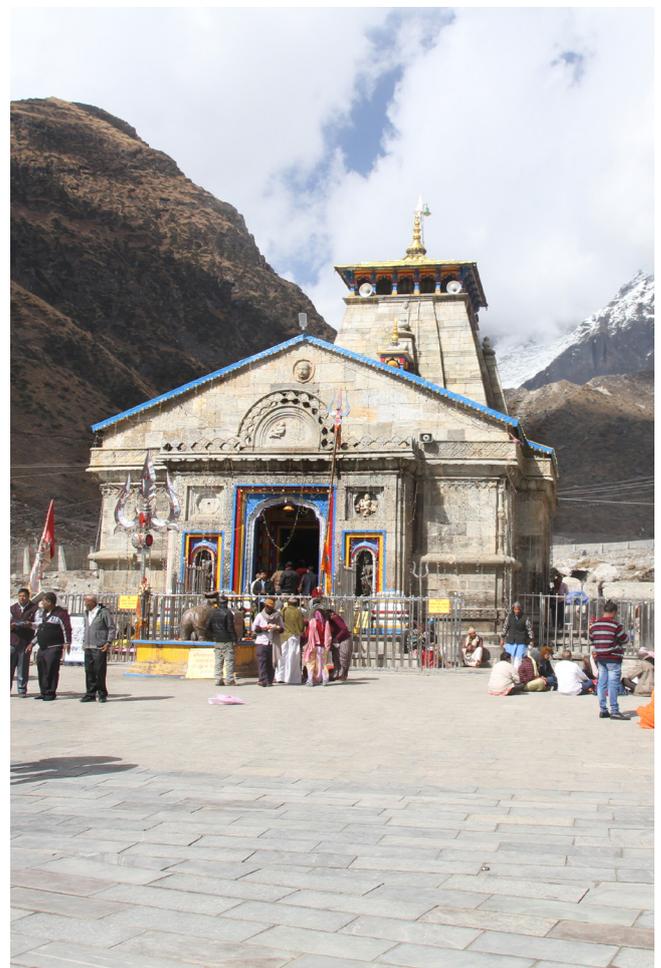
In the health sector, Uttarakhand ranked 15th in the NITI Aayog Health Index 2018. For FY22, Uttarakhand allocated 6.5% of its total expenditure on health, which is higher than the average allocation for health by states (5.5%). On the nutrition front, Uttarakhand does better than the national average on several parameters, however, considerable room for improvement remains especially under the stunting and underweight categories, for which the numbers stand higher than the national average.

Uttarakhand has been one of the front-runners in the achievement of Sustainable Development Goals (SDGs). It increased its score from 60 in 2018 to 72 in 2020 in the SDG India Index, achieving an all-India rank of 4. In particular, improvements in affordable and clean energy made it an 'achiever state' with a score of 100 in that category.

Table 1: Uttarakhand's Performance in the SDG India Index

Year	Rank	Score
2018	10	60
2019	9	64
2020	4	72

Tourism



Uttarakhand is popularly known as Devbhumi (land of Gods) due to the presence of numerous pilgrimage sites. As a result, religious tourism forms a major portion of the tourism in the state. The state is endowed with abundant natural beauty and resources, vibrant culture and rich heritage, that can be leveraged to promote cultural tourism, wildlife tourism and eco-tourism.

According to the Uttarakhand Tourism Policy 2018, tourist arrivals grew at a healthy CAGR of 5.0%

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during 2006-16, and are expected to further increase to 7.0% during 2017-28. The policy focuses on the development of new and innovative products such as blimps, caravans, hot air balloons, homestays, ropeways and funicular to diversify tourism options

and position the state as an attractive destination for both domestic and international tourists. To tap into the state's tourism potential, increased capital investment in tourism infrastructure and greater private sector participation should be encouraged.



National Mission on Transformative Mobility and Battery Storage

About the Mission

To drive clean, connected, shared, sustainable and holistic mobility initiatives in India, National Mission on Transformative Mobility and Battery Storage was set up by NITI Aayog in March 2019. Since then, several initiatives have been taken at the national and the state level viz., introducing conducive policies, generating awareness, enhancing the EV value chain, building stakeholder capacity, enabling research and development (R&D), and fostering collaborations and partnerships. These initiatives have led to various policy decisions and strategies at the central and state level which in turn have resulted in accelerating development of the EV ecosystem in India.

Achievements in various areas

1. Interventions focusing on demand-creation

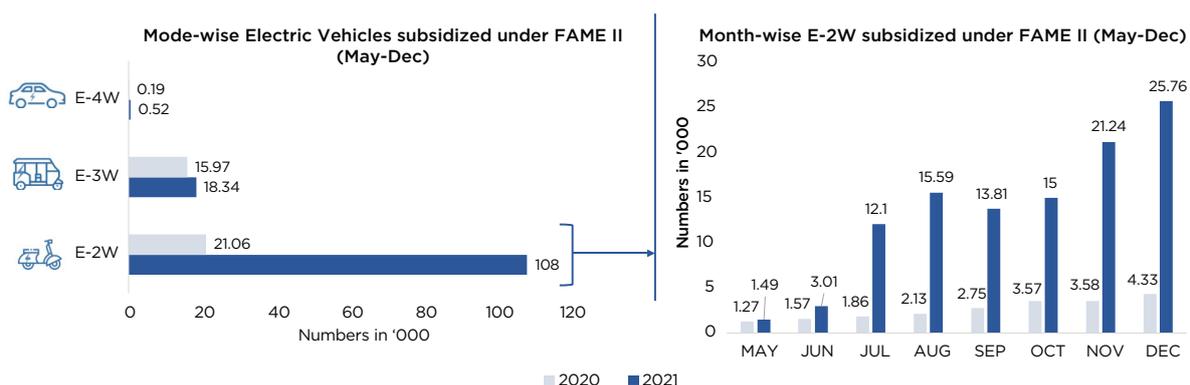
To promote indigenous manufacturing of electric vehicles (EVs) and to encourage their adoption, the Department of Heavy Industries (DHI) launched the

Phase-II of the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME-India) Scheme in April 2019. FAME-II provides demand incentives for electric vehicles used for different use cases. For instance, 5 lakh electric three wheelers (e-3Ws), 55,000 electric four wheelers (e-4Ws) and 7,000 electric buses used for public transport and commercial purposes, as well as 10 lakh electric two wheelers (e-2Ws) used for private use are targeted to be incentivised under the scheme. To further boost EV adoption, the FAME scheme was re-strategized in June 2021, increasing upfront incentives for 2Ws, introducing Aggregation Model for e-3Ws, as well as for operating expenditure (OPEX) model and lighthouse cities approach for electric buses. Revisions in the scheme have accelerated the deployment of e-2Ws, as witnessed in increasing sales during the second half of 2021 (Exhibit 1). Realization of FAME-II targets will translate into significant benefits for the Indian economy on account of oil imports savings and avoided emissions (Exhibit 2).¹ In addition to demand incentives for EVs, INR 1,000 crore has been allocated under FAME-II to support the deployment of charging infrastructure across Indian cities. 2,877 charging stations have been sanctioned for 68 cities under the scheme so far.

To further boost the demand creation efforts under the Mission, NITI Aayog has launched the Shoonya-Zero Pollution Mobility Campaign. The Campaign aims to build awareness amongst consumers and generate demand for zero pollution rides and deliveries in India. It recognises and promotes industry efforts towards

1 https://e-amrit.niti.gov.in/assets/admin/dist/img/newfronend-img/report-pdf/mobilising_finance_for_evs_in_india_compressed-1-10.pdf

Exhibit 1: Mode-wise Electric Vehicles subsidized under FAME II (May-Dec) and Month-wise E-2Ws subsidized under FAME II (May-Dec)



Source: MHI and Vahan Dashboard

4 POLICY AND PROGRAMME

electrification of fleets used for delivery and ride-hailing. The long term vision of the campaign is 100 % electrification of vehicles used for final mile delivery and connectivity. As of February 2022, more than 90 industry players have joined the campaign; this includes e-commerce companies (viz., Amazon, BigBasket), vehicle manufacturers (viz., Tata Motors, Mahindra Electric, Hero Electric), food delivery companies (viz., Zomato, Swiggy), fleet aggregators (viz., Uber, BluSmart, Yulu) and charging infrastructure providers (viz., Magenta, Delta, Fortum) among others.

Exhibit 2: Cumulative lifetime oil and net CO2 saving from EVs incentivised under FAME-2

	2W	3W	4W	BUS	TOTAL
VEHICLES	1 MN	0.5 MN	55,000	7,000	1.56 MN
OIL SAVINGS (INR '000 CRORE)	3.0	7.2	2.5	4.5	17.2
NET CO₂ EMISSIONS SAVING (MILLION METRIC TONNES)	2.6	3.2	0.1	1.5	7.4

Source: NITI & RMI, 2021

During COP26, NITI Aayog launched the e-AMRIT portal in partnership with the British High Commission in India. The portal acts as a 'one-stop site' for providing all the information related to EVs.²

2. Interventions focusing on advancing indigenous manufacturing

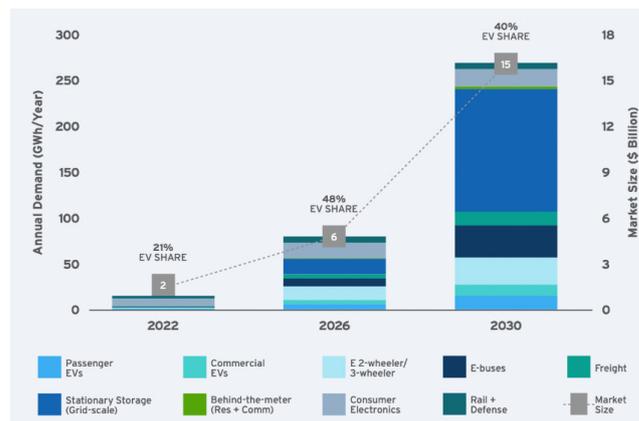
To promote domestic manufacturing of EVs, their assemblies/sub-assemblies, and parts, sub-parts and inputs of the assemblies, DHI launched the Phased Manufacturing Programme (PMP) in March 2019. PMP defined effective date for indigenization of electric/hybrid (xEV) vehicle parts for eligibility under Phase-II of the FAME Scheme.

Increased EV adoption is expected to increase the demand for EV batteries in this decade. In an accelerated EV adoption scenario, the country's battery demand is expected to reach 260 GWh by 2030

² <https://e-amrit.niti.gov.in/home>

(Exhibit 3).³ This would translate into a need of about 26 gigafactories with an average battery production capacity of 10 GWh per year.

Exhibit 3 Expected growth in India's battery demand in accelerated scenario



Source: NITI Aayog and RMI, 2022

To support the expected rise in demand of batteries, NITI Aayog and DHI are implementing the Production Linked Incentive (PLI) scheme for ACC storage, known as the 'National Programme on Advanced Chemistry Cell Battery Storage'. The scheme will support creation of 50 GWh of Advanced Chemistry Cell (ACC) and 5 GWh of additional 'Niche' ACC manufacturing. The scheme has an approved budget outlay of INR 18,100 crore and is expected to lead to direct investments of around INR 45,000 crore in ACC battery manufacturing projects and import substitution of around INR 20,000 crore every year. Ten bids have been received, with a proposal for installing 128 GWh i.e., 2.6 times the ACC manufacturing capacity of 50GWh at disposal under the scheme. These were received as part of the tender floated under the scheme and are currently being evaluated by DHI and NITI Aayog.⁴

To further spur local manufacturing of advanced automotive products including battery electric vehicles (BEVs) and hydrogen fuel cell vehicles (HFCVs), the PLI Scheme for Automobile and Auto Components Industry was approved with a budget outlay of INR 25,938 crores in September 2021. The scheme received an overwhelming response, as 115 local and global companies, engaged in proposing to manufacture advanced vehicles/ components, applied for the scheme.⁵ 20 major OEMs and New Non-Automotive

³ <https://www.niti.gov.in/sites/default/files/2022-02/Need-for-ACC-Energy-Storage-in-India.pdf>

⁴ <https://pib.gov.in/PressReleasePage.aspx?PRID=1790139>

⁵ <https://pib.gov.in/PressReleaseDetail.aspx?PRID=179761>

Investors across vehicle categories have been approved under the Component Champion Incentive program of the PLI scheme so far. This includes some of the largest players such as Tata Motors, Hyundai Motors, Bajaj Auto Limited, Hero MotoCorp Ltd. and new OEMs such as Ola Electric, Hop Electric, etc.⁶

3. Interventions focusing on enhancing Research and Development

The Mission has been organizing consultations with several Indian Institutes of Technology (IITs) to introduce Master's and PhD Programmes to promote research on clean vehicle technologies, energy storage & battery chemistry. Nine IITs have started dedicated programs for EVs, which include: introducing courses, setting up Centre(s) of Excellence and dedicated teams working on EVs and HFCVs. Some of the key highlights are provided below:

- IIT Kanpur established a new Department of Sustainable Energy Engineering in December 2020. The Department undertakes research of new battery technologies viz., Sodium-ion batteries and liquid batteries, new electrode material development, computational studies on batteries and materials.
- IIT Delhi established a dedicated Centre for Automotive Research and Tribology (CART) that undertakes R&D for EVs and Battery Storage.
- IIT Bombay set up a Centre for Energy Storage Platform on Hydrogen. The Centre undertakes research in materials and systems, prototype demonstration, technology development, incubation of innovative ideas, industrial interactions, etc. in the field of hydrogen energy.
- IIT Guwahati's Electrical Department started a Master's program in EVs in September 2020. The Institute collaborates with senior industry experts to assist in delivering specialized courses like electric mobility-as-a-service, role of circular economy, charging protocols, etc.
- IIT Hyderabad launched a Master's program in Smart Mobility in August 2020. The Course curriculum includes Machine Learning, Autonomous Navigation, Traffic Engineering, and Intelligent Transportation Systems for cleaner modes.

- IIT Ropar has a dedicated team working on BEVs and HFCVs. The team is working on chemical formula for fuel cell membrane using Artificial Intelligence.
- IIT Madras has two Centres of Excellence: Centre for Battery Engineering (CoBE) and Centre for Electric Vehicles (CoEV), majorly focusing on battery cell pack designs, battery life cycle, EV infrastructure management and second use of batteries.

4. Interventions focusing on building Collaboration and Partnerships

NITI Aayog has been convening regular consultations with industry, academia and think tanks to address challenges in the adoption of EVs and charging infrastructure in India. Furthermore, NITI Aayog has been collaborating and leading associations with different bilateral and multilateral agencies, international government agencies, and think tanks to foster the EV market in India.

- In March 2021, the Asian Development Bank approved the provision of technical assistance (TA) to the Government of India with an outlay of USD 1,000,000 for promoting clean energy usage through enhanced adoption of EVs and grid integration of battery energy storage. EV Mission of NITI Aayog serves as the Executing Agency for technical assistance. Key activities under the TA include credit enhancement of EV fleet operators and other stakeholders requiring credit in the entire EV value chain, and supply chain assessment for EV and component manufacturing.
- To drive rapid uptake of EVs by states, cities, businesses, start-ups and individuals, the Government of India and the Government of UK established a partnership programme called the 'E-mobility accelerator' awareness campaign. The campaign includes the development of web-based portal using the principles of UK's 'Go Ultra-Low' campaign as a reference.
- NITI Aayog launched the 'Forum for Decarbonizing Transport' in India as part of the NDC-Transport Initiative for Asia (NDC-TIA) in August 2021. The Forum aims to work with different stakeholders in formulating strategies and developing business models to accelerate EVs in India.

6 <https://pib.gov.in/PressReleasePage.aspx?PRID=1797610>

4 POLICY AND PROGRAMME

Other policies and provisions supporting EVs

Prime Minister Narendra Modi at COP 26 announced the year 2070 as India's Net Zero target. PM Modi also presented 'panchamrit' or five nectar elements to deal with the challenge of climate change. These include achieving non-fossil energy capacity of 500 GW by 2030, meeting 50 % of India's energy requirements from renewable energy (RE) by 2030, reducing total projected carbon emissions by one billion tonnes from now to 2030, and reducing carbon intensity of the economy to less than 45%. Transport sector decarbonisation is essential for India to achieve its climate commitments.

Recognizing the need to mitigate emissions from the transport sector, several initiatives have been introduced by various ministries to support the EV ecosystem:

- GST rate on EVs was reduced from 12% to 5% and on EV chargers from 18% to 5%.
- The Ministry of Power (MoP) allowed sale of electricity as a 'service' for charging EVs and updated the Electric Vehicles (EVs) Charging Guidelines and Specifications in October 2019, further revised in January 2022.
- Ministry of Road Transport and Highways of India (MoRTH) updated the policy of deregistration and scrapping of vehicles owned by the Government departments and Public sector undertakings (PSUs) which are above 15 years in age. MoRTH also proposed Green Tax on vehicles older than 8 years, when renewing a vehicle's certificate of fitness. Green number plates and exemption from payment of registration fees for EVs, and allowing registration and sales of EVs without batteries are some of the other provisions introduced by MoRTH.
- The Ministry of Housing and Urban Affairs (MoHUA) made amendments to the Model Building Byelaws (MBBL) 2016 and Urban Regional Development Plans Formulation and Implementation (URDPFI) Guidelines 2014 making provisions for establishing EV charging infrastructure.
- Ministry of Environment Forest and Climate Change (MoEF&CC) drafted a notification on Battery Waste Management Rules, 2020 to strengthen the ecosystem for handling and disposal of batteries.

Supporting State EV policy Ecosystem

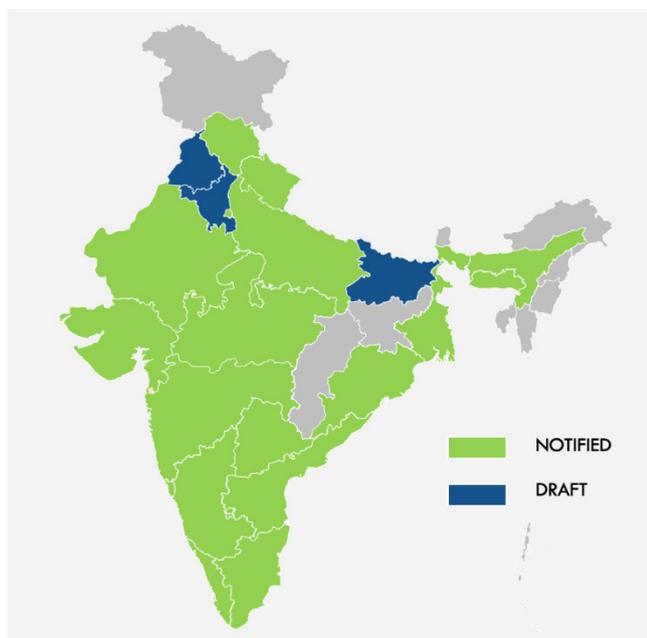
From 2019 to 2021, the EV Mission in NITI Aayog has inspired more than 25 states and union territories (UTs) to come up with EV Policies. So far, 18 states have updated their EV policies to accelerate EV adoption (Exhibit 4), four have released their drafts, and some are in the process of finalizing their policies.

To further promote the creation of EV ecosystem at the sub-national level, the Mission has been organizing workshops with States and UTs. To identify mobility challenges in Northeast states and to exchange best practices, NITI Aayog organized regional workshops. Moreover, the Mission organized several stakeholders' consultations on cutting-edge EV charging options as well as on battery swapping.

Exhibit 4 States with Electric Vehicle Policies in India⁷

S.No.	State	Year
Notified		
1	Karnataka	2017
2	Andhra Pradesh	2018
3	Kerala	2019
4	Uttar Pradesh	2019
5	Tamil Nadu	2019
6	Madhya Pradesh	2019
7	Uttarakhand	2019
8	Telangana	2020
9	Delhi	2020
10	Meghalaya	2021
11	Gujarat	2021
12	West Bengal	2021
13	Rajasthan	2021
14	Maharashtra	2021
15	Assam	2021
16	Goa	2021
17	Odisha	2021
18	Himachal Pradesh	2021
Published Draft		
1	Bihar	2019
2	Punjab	2019
3	Haryana	2020
4	Chandigarh	2022

⁷ The map of India is only representative, it doesn't reflect the actual geographical boundaries



EV Charging Infrastructure Policies and Standards

NITI Aayog prepared a draft policy for the Indian Railways to set up an EV charging infrastructure at railway stations across India. The draft policy, shared with the Ministry of Railways (MoR), recommends supply of renewable energy to charging facilities in line with the Railway’s mission to become a net-zero carbon emitter by 2030. As per a proposed plan, the EV charging infrastructure will be deployed at 123 redeveloped railway stations immediately and at all railway stations by 2030, in a phased manner.

NITI Aayog, along with MoP, Department of Science and Technology (DST), Bureau of Energy Efficiency (BEE) prepared a Handbook to Guide EV Charging Infrastructure in India. Additionally, NITI also launched a report on Smart charging strategies and technologies for Electric vehicles.

Battery Swapping Policy and Standards

In the Budget 2022-23, the government announced plans to introduce Battery Swapping Policy and interoperability standards, with the intent of improving efficiency in the EV charging ecosystem. The policy will initially focus on e-2W and e-3W segments given their cost parity with internal combustion engine (ICE) equivalents, and rising demand, especially in

commercial applications. NITI Aayog is leading policy formulation and coordination with relevant government and external stakeholders to formulate battery swapping policy, including Battery as a Service (BaaS).

Currently, batteries account for 40 to 50% of the net price of EVs. Separating batteries from EVs could therefore lower the upfront cost of EVs significantly, thereby driving EV adoption. BaaS is a common business model used by battery swapping service providers. This involves users purchasing an EV without the battery, which significantly lowers upfront costs, and paying a monthly subscription fee to the service providers for swappable batteries.

Though the battery swapping industry is at a nascent stage in India, it is expected to grow substantially with leading players such as SUN Mobility, Tata Power DDL, Bounce, Park+, Jio-BP, etc. aiming to set up a network of swapping stations in the next few years. The battery swapping policy under the Mission will accelerate the development of the ecosystem.

EV Financing

India’s commitment to reach 30% sales share for EVs by 2030 under the EV30@30 initiative presents a cumulative investment opportunity of around INR 19.7 lakh crore across EVs, charging stations and batteries.⁸ This highlights the need for higher liquidity and lower cost of capital for EVs and related infrastructure. Recognising this investment opportunity, NITI Aayog launched a toolkit on Mobilising finance for EVs in India. The report is a compendium of solutions to address market barriers and mitigate financing risks associated with EVs.

NITI Aayog is also working with the World Bank on a program to fast-track and ease financing of EVs. A USD 300 million ‘first loss risk sharing instrument’, with the State Bank of India as its program manager has been conceived and is currently under development. The risk sharing facility, if established, can lower the current rate of interest for e-2Ws and e-3Ws from 20-25 per cent to 10-12 per cent.

NITI Aayog has also been working on inclusion of EVs in the Reserve Bank of India’s priority sector lending (PSL) guidelines, as the inclusion can nudge India’s financial sector to mobilise required capital for EVs. NITI Aayog recently released a report on ‘Banking on Electric Vehicles in India: A Blueprint for Inclusion

⁸ https://www.niti.gov.in/sites/default/files/2022-01/Banking-on-EV_web_2.0a.pdf

4 POLICY AND PROGRAMME

of EVs in Priority Sector Lending Guidelines' to build a case for the government to design and issue the necessary guidelines to include EVs in PSL.

Way forward

NITI Aayog's initiatives under the Mission have been instrumental in developing the EV ecosystem in India. More than 9 lakh EVs were registered in India by the end of 2021, supported by FAME scheme, State policies and awareness programs.⁹ Policies such as PLI, FAME, PMP, etc. are fostering EV manufacturing with over 440 EV manufacturers operating in India.¹⁰ Moreover, 1800+ charging stations have been deployed across India so far.

Going forward, the Mission will continue to support national and sub-national initiatives to enable India to leapfrog from ICE vehicles to electric vehicles. Some of the key priorities moving forward include-

- Fast tracking the implementation of ACC Scheme to support cell manufacturing to cater to the rising EV and energy storage demand.

- Implementation of the policy will reduce India's battery import dependence and help India in emerging as a battery/EV export hub.
- Rolling out Battery Swapping Policy in consultation with government and industry stakeholders. The policy will help overcome charging related challenges perceived by potential consumers (especially delivery service providers) and enable the creation of a swapping network in India.
- Working with stakeholders to facilitate the deployment of public charging network across the country.
- Engaging and collaborating with corporate partners in expanding the reach of the Shoonya Campaign, building awareness, creating demand for zero-pollution rides and deliveries, and enhancing the reach of Shoonya as a slogan across every household in India.
- Supporting states by providing technical assistance and capacity building for the design and implementation of EV policies.



9 <https://vahan.parivahan.gov.in/vahan4dashboard/>

10 <https://cef.ceew.in/intelligence/tool/electric-mobility>

War in Ukraine, Sanctions Will Have ‘Severe Impact’ on Global Economy: IMF

The IMF warned in its official statement that the Russia-Ukraine conflict and the subsequent sanctions imposed upon Russia will have a ‘severe impact’ on the global economy. ‘While the situation remains highly fluid and the outlook is subject to extraordinary uncertainty, the economic consequences are already very serious,’ the Washington-based lender said in a statement.

Read more:

<https://www.imf.org/en/News/Articles/2022/03/05/pr2261-imf-staff-statement-on-the-economic-impact-of-war-in-ukraine>

Global Trade Hit USD 28.5 Trillion in 2021, but Likely to Be Subdued in 2022: UNCTAD

UNCTAD’s Global Trade Update, published on 17 February 2022, shows that in 2021, world trade in goods remained strong and trade in services finally returned to its pre-Covid levels. The value of global trade reached a level of USD 28.5 trillion in 2021, an increase of 25% on 2020 and 13% higher compared to 2019, before the Covid-19 pandemic struck.

Read more:

<https://unctad.org/news/global-trade-hits-record-high-285-trillion-2021-likely-be-subdued-2022>

China’s GDP Growth Slows to 4.0% in Q4 2021 amid Covid Resurgence and Persistent Woes in Real-Estate Sector

China’s gross domestic product growth slowed to 4.0% on the year in the fourth quarter of 2021, delivering a full-year result of 8.1%, due to Covid-19’s resurgence and a real-estate downturn combined to restrain economic momentum.

Read more:

<https://www.ft.com/content/5b0e09fb-1e02-4537-a44b-7b33cd43ba48>

Crude Oil Price Surges to Highest Since 2008

Oil prices soared to their highest since 2008 on 6 March 2022 on the back of the Russia-Ukraine conflict. Both benchmarks rose to their highest since July 2008 with Brent at USD 139.1/barrel and WTI at USD 130.5/barrel. Key drivers of the surge are the delays in the potential return of Iranian crude to global markets and likely ban on imports of Russian oil by the US and Europe.

Read more:

https://economictimes.indiatimes.com/markets/commodities/news/crude-oil-price-surges-to-highest-since-2008-on-delays-in-iranian-talks/article-show/90040756.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Eurozone Inflation Hits Record 5.8% in February 2022

Consumer prices in the eurozone rose by a record 5.8% in February 2022. Given that this is more than twice the ECB’s 2% target, narratives of ECB rate normalization are also on the cards similar to that from the Fed and the Bank of England.

Read more:

<https://www.ft.com/content/b7055867-80b2-4187-b4a4-1bf600dcc32b>

Global Green Bond Issuance Hit Record High in 2021

Global green bond issuance reached a record high of USD 269.5 billion by the end of 2021 and could reach USD 400–50 billion in 2022, as reported by Climate Bonds’ Initiative. Supporting factors for green bond issuance this year include US President Joe Biden’s intention to return the country to the international Paris Agreement to fight climate change and investors and policymakers’ growing focus on decarbonizing industrial sectors.

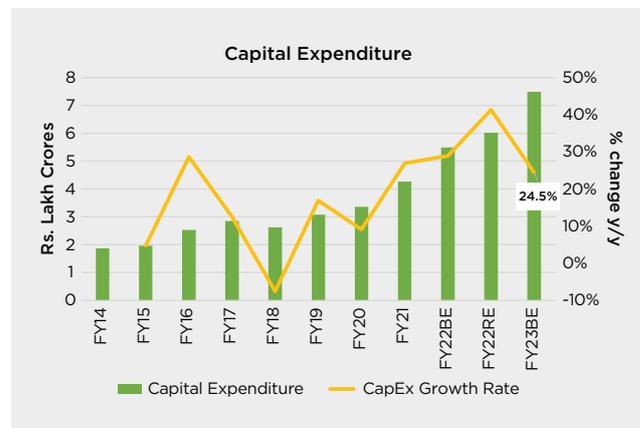
Read more:

<https://www.reuters.com/business/sustainable-business/global-green-bond-issuance-hit-new-record-high-last-year-2021-01-25/>

Budget FY2022-23 - Articulation of Ambition for India@100

The Union Budget FY2022-23 outlined the blueprint for the next two and a half decades, thus readying India@100. At the core of the budget is its unifying theme - to lay a solid foundation for achieving the vision of a digitally empowered India with world-class infrastructure.

The budget estimates nominal GDP growth of 11.1% for FY2022-23. The fiscal deficit is expected to be 6.9% and 6.4% of the GDP, for FY2021-22 and FY2022-23 respectively. Key details from the budget are provided below.



Source: Ministry of Finance, CEIC

(Rs. Lakh Crores)	FY20	FY21	FY22 BE	FY22RE	FY23BE	% Change y/y		
						FY22RE/ FY21	FY23BE/ FY22RE	FY23BE/ FY22BE
Total Expenditure	27.0	35.0	34.8	37.7	39.4	7.7%	4.6%	13.3%
Revenue Expenditure	23.5	30.8	29.3	31.7	31.9	2.9%	0.9%	9.1%
Capital Expenditure	4.2	4.2	5.5	6.0	7.5	42.9%	24.5%	35.4%
Total Revenue	26.8	35.2	34.1	36.0	39.4	2.3%	5.0%	15.6%
Gross Tax Revenue	20.1	20.2	22.1	25.2	27.6	24.8%	9.5%	24.9%
Direct Tax	10.5	9.4	11.1	12.5	14.2	33.0%	13.6%	27.9%
Indirect Tax	9.5	10.7	11.0	12.6	13.3	17.8%	5.6%	20.9%
Disinvestment	0.5	0.4	1.8	0.8	0.7	100.0%	-16.7%	-62.9%
Fiscal deficit	9.3 (4.7% of GDP)	18.2 (9.2% of GDP)	15.1 (6.8% of GDP)	15.9 (6.9% of GDP)	16.6 (6.4% of GDP)	-12.6%	4.4%	9.9%

The Budget announced a substantial increase of 35.4% in government capital expenditure for 2022-23 (FY23) over the previous year's budget estimate. Even while comparing with the higher revised estimate of ₹6.02 lakh crore (risen by writing-off Air India's debt), it still represents a substantial increase of 24.5%. This comes on top of a sharp increase in public capital expenditure in FY2021-22. Capex allocation rose to the highest, in 18 years, as a percentage of the total expenditure at 19.1% from 16.2% in the current fiscal. Sustained improvement in quality of expenditure augurs well for enhancing the productive capacities of the Indian economy.

The four main priorities outlined in the budget: PM Gati Shakti; Inclusive Development; Productivity Enhancement & Investment, Sunrise Opportunities, Energy Transition, and Climate Action; and Financing of Investments are the main drivers of the budget's agenda.

The Gati Shakti masterplan seeks to provide a seamlessly integrated world-class physical infrastructure to meet the logistics need of a rapidly growing economy. Expansion and modernization of the seven engines of the master plan— roads, railways, airports, ports, mass urban transport, waterways, and other logistics dimensions — will help enhance productivity and lead to jobs and entrepreneurial

opportunities for all. In addition, it will make Indian businesses globally competitive and help boost exports and remove bottlenecks in supply chains, thereby helping to bring down inflationary pressures in the economy.

The budget also lays out a vision for inclusive development - in the agriculture sector, supported by co-investment models to finance rural start-ups; in urban development with an increased focus towards Tier 2 and 3 cities; in inter-linking major platforms like Udyam, e-Shram, etc. to ensure credit facilitation and skill development; and in universalization of education and health supported by the digital economy.

Allocations have also been made to ensure efforts towards combatting climate change and energy transition by incentivizing the installation of solar PV modules, transitioning to a carbon-neutral economy, and also supporting the creation of new business opportunities in the circular economy.

MSMEs continued to be a key focus of the Government and measures have been taken to increase their access to credit and competitiveness. Emergency Credit Line Guarantee Scheme (ECLGS), offered to more than 130 lakh MSMEs has been extended up to March 2023. The continuation of raising and accelerating the MSME Performance (RAMP) program with an outlay of Rs. 6000 crores over 5 years will help the MSME sector to become more resilient and competitive.

In a nutshell, the government is walking the talk with an appreciable pace of infrastructure spending and focusing on the digital future, 5G network, artificial intelligence, genomics, drones, and mass transit systems. The budget aims to lay a strong foundation of New India and also serves the post-pandemic needs of the economy.

A snapshot of the Economic Survey FY 2021-22

The Economic Survey of FY 2021-22 tabled in the Parliament on 31 January 2022 by the Finance Minister Smt. Nirmala Sitharaman, underlined the multi-layered approach of India's unique policy response to the recurrent waves of the COVID-19 pandemic and its economic impact. India laid out an 'Agile' policy mechanism based on feedback-loops and continuous monitoring of real-time data to tailor its response to evolving challenges which were largely uncertain and non-deterministic in nature. The 'Barbell' strategy based on the two-pronged approach of flexibility and resilience combined a 'bouquet of safety nets', providing the necessary cushion to the most vulnerable sections

of the society and the business sector. The success of this remarkable policy framework is reflected in First Advance Estimates of India's GDP, projecting growth of 9.2% in real terms for FY 2021-22 (vis-à-vis a 7.3% contraction in FY 2020-21), indicating overall economic activity recovered beyond the pre-pandemic levels.

Highlighting the sectoral aspects, the survey states that agriculture and allied sectors are least impacted by the pandemic, whereas services suffered long extended hurt, driven by its most contact-intensive sub-sector. However, leveraging the boom in demand of software and IT enabled services, services sector has played a dominant role in the growth story of the Indian start-up ecosystem. The survey states that 'India has become the third largest start-up ecosystem in the world after the US and China. Further, a record 44 Indian start-ups have achieved unicorn status in 2021 taking the overall tally of unicorns in India to 83, most of these are in the services sector.'

Sector	Annual Growth Rate of GVA at constant (2011-12) prices (%)			
	2019-20 (1 st RE)	2020-21 (PE)	2021-22 (1 st AE)	Recovery over 2019-20
Agriculture & Allied Sectors	4.3%	3.6%	3.9%	107.7
Industry	-1.2%	-7.0%	11.8%	104.1
Services	7.2%	-8.4%	8.2%	99.2

Government consumption significantly contributed to growth and is expected to surpass pre-pandemic levels while private consumption and investment show improved trends, signalling optimism for faster normalization of economic activity. With greater policy thrust by the government on capex spending and infrastructure growth, investment to GDP rose to 29.6%, a seven-year high, in FY2021-22. India's exports of goods as well as services recorded exceptional performance in FY2021-22. Value of merchandise exports remained above the USD 30 billion mark consecutively for eight months in FY2021-22. Imports also recovered strongly, owing to the resurgence in domestic demand and elevated international prices of crude and metals. The higher increase in imports relative to exports led to ballooning of deficit in the current account in H1 FY2021-22 as compared to a surplus in H1 FY2020-21. Despite the pandemic-induced disruptions, India maintained a surplus in the balance of payments leading to high accretion of foreign exchange reserves, which stood at USD 634 billion as on 31 December 2021. On the back of stronger

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external sector stability indicators, the economy is well-poised to sustain any exogenous shocks arising from the potential global tapering of liquidity in FY2022-23.

Active government intervention through the fiscal and monetary routes supported the revival of growth momentum for the Indian economy and improved overall macroeconomic stability. Assuming no further paralyzing pandemic-induced economic disruptions, normal monsoons, orderly tapering of liquidity by major central banks globally, oil prices ranging from USD 70-75/bbl, and easing of supply-chain disruptions, the survey signalled optimism in achieving a growth of 8.0-8.5% in FY2022-23.

The Survey details out India's progress on the front of achieving Sustainable Development Goals (SDGs) and tackling climate change. The overall score on the NITI Aayog SDG India Index & Dashboard improved to 66 in 2020-21, from 60 in 2019-20 and 57 in 2018-19. The Indian economy is making significant strides in the direction of achieving greater climate action, ensuring 100% tap water supply, and imposing stringent regulations to put an end to the menace of single-use plastics and polluting industries. The Hon'ble Prime Minister at the COP26 in Glasgow announced ambitious targets to be achieved by 2030 to enable further reduction in emissions, the survey said. In this regard, LIFE (Lifestyle for Environment), a one-word mass-mobilisation movement towards climate action was proposed so as to encourage "an environmentally conscious lifestyle in a manner that revolutionises many sectors and diverse areas".

The survey highlights that the government of India has been promptly responding to the prevailing uncertainty with reforms and measures aimed at providing an impetus to growth and to encourage economic flexibility through innovation, entrepreneurship and risk-taking on one hand, and simultaneously invest in resilient infrastructure, social safety-nets and macro-economic buffers on the other.

Read:

<https://www.indiabudget.gov.in/economicsurvey/>

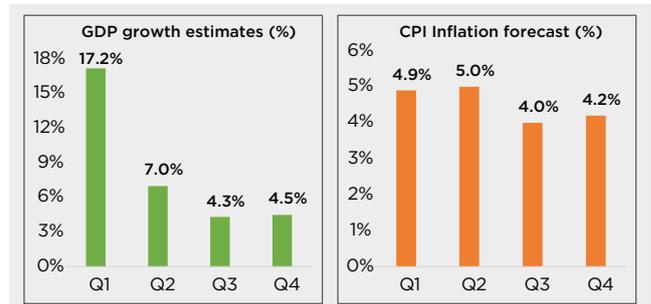
Resolution of the Monetary Policy Committee (February 2022)

The Monetary Policy Committee (MPC) of RBI in its latest statement announced on 10 February 2022, kept the repo rate unchanged at 4.0% and continued to maintain an accommodative stance for the 10th consecutive policy meeting. They stated that maintaining this stance

is fundamental to achieving sustained growth on a durable basis and to attenuate the pandemic impact, while ensuring inflation remains within the target going forward. This is in consonance with the objective of achieving the medium-term target for CPI inflation of 4% within a band of +/- 2%, while supporting growth.

Particulars	Previous rate (%)	Revised rate (%)	Effect
Repo Rate	4.00	4.00	Unchanged
Reverse Repo Rate	3.35	3.35	Unchanged
MSF	4.25	4.25	Unchanged
Bank Rate	4.25	4.25	Unchanged
Credit Policy Stance	Accommodative	Accommodative	Unchanged

The RBI has projected real GDP growth for FY2022-23 at 7.8%. CPI inflation is projected at 5.3% for FY 2021-22 and 4.5% for FY 2022-23. Quarterly projections on GDP growth and CPI inflations for FY2022-23 are shown below.



Read:

https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=53249

Record high GST collections in January 2022

On the back of robust economic recovery, the gross GST collections stood at Rs. 1.4 lakh crore (15.4% y/y rise) in January 2022, the second highest since the rollout of the GST regime. This is the fourth consecutive month when revenues crossed the Rs. 1.3 lakh crore mark and the Ministry of Finance stated that this positive trend is expected to be sustained in the coming months. Higher revenues will aid reduction in fiscal deficit and improve tax buoyancy.

Read:

<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1793877>

India enters into a CEPA with UAE

India signed and exchanged the Comprehensive Economic Partnership Agreement (CEPA) with UAE at the India-UAE virtual summit on 18 February 2022. This agreement will provide benefits to the business sector in both countries, in the form of improved market access and reduction in tariffs. It is estimated that bilateral trade will grow from USD 60 billion to USD 100 billion in the next 5 years.

Read:

<https://pib.gov.in/PressReleaselframePage.aspx?PRID=1799391>

Reduction in import duty of crude palm oil

The Centre has reduced the agri-cess on crude palm oil (CPO) from 7.5% to 5% increasing the gap between the import tax duty between crude palm oil and refined palm oil by 8.25%, thereby making it cheaper for the domestic refining industry to import CPO. In addition, they extended current basic rate of import duty of 0% on crude palm oil, crude soyabean oil and crude sunflower oil until September 30, 2022. This will provide a safety net to the consumers and attenuate any further rise in international prices of edible oils which are witnessing

an upward trend owing to limited availability and other geopolitical factors.

Read:

<https://pib.gov.in/PressReleasePage.aspx?PRID=1798318#:~:text=The%20rate%20of%20import%20duty,to%2030th%20September%2C%202022.>

Banned imports of drones to boost domestic manufacturing

The Directorate General of Foreign Trade (DGFT) banned import of foreign drones while allowing for unrestricted imports of drone components to help domestic drone manufacturing. This works in tandem with two government schemes - Drone Shakti (Union Budget FY 2022-23) promotes use and application of 'drones as a service', and PLI (September 2021) worth Rs. 120 crores for manufacturing of drone and drone components. This will likely increase the annual turnover of the industry to Rs 900 crore by FY 2023-24 and generate over 10,000 direct jobs over the next three years, based on projections from the Ministry of Civil Aviation.

Read:

<https://pib.gov.in/PressReleaselframePage.aspx?PRID=1799531>

NITI Aayog Met with Odisha to Discuss Various Issues

In a meeting held on 15 December 2021, NITI Aayog Vice Chairman Dr Rajiv Kumar discussed various issues with the Odisha state government. Some of the major suggestions made to the state during this meeting were on increasing the state's mining production, switching to chemical-free agriculture, and setting up monitoring units to achieve the Sustainable Development Goals.

Read more:

<https://timesofindia.indiatimes.com/city/bhubaneswar/odisha-cm-seeks-special-dispensation-from-centre-to-catch-up-with-frontline-states/articleshow/88300314.cms>

Four Labour Laws to Be Implemented across States by FY 2022–23

The four labour codes on wages, social security, industrial relations and occupation safety, health and working conditions are expected to be implemented by FY 2022–23. A number of states have pre-published draft rules on these laws. These include Madhya Pradesh, Bihar, Uttarakhand, Karnataka, Uttar Pradesh, Gujarat, Odisha, Punjab, Chhattisgarh and Tripura, among others.

Read more:

<https://economictimes.indiatimes.com/news/economy/policy/4-labour-codes-likely-to-be-implemented-by-fy23-as-many-states-ready-draft-rules/article-show/88368893.cms>

West Bengal Tops Foundational Literacy and Numeracy Index

West Bengal topped the Foundational Literacy and Numeracy Index among the 'Large States' category. Bihar was ranked the worst-performing state in the same category. Among the 'Small States', Kerala secured the top spot and Jharkhand the lowest. Lakshadweep and Mizoram were top-scoring regions in the 'Union Territory' and 'North-East States' categories, respectively.

Read more:

https://www.business-standard.com/article/current-affairs/foundational-literacy-index-bengal-tops-bihar-last-among-large-states-121121601089_1.html

Gujarat Ranks First in Good Governance Index

Gujarat, Maharashtra and Goa emerged as the top three states in 'Group A' in the Good Governance Index 2021. Delhi topped the union territories, followed by Puducherry and Chandigarh. Himachal Pradesh, Mizoram, Uttarakhand, Tripura and Sikkim were the top five states in the category of 'North-East and Hill States'.

Read more:

<https://www.newindianexpress.com/thesundaystandard/2021/dec/26/gujarat-no-1-in-centres-good-governance-index-2399760.html>

EVs in Maharashtra up 153% in One Year

Maharashtra witnessed a 153% increase in EV registrations in the first nine months of FY21–22, while Mumbai recorded a growth of 112% in the same period.

Read more:

<https://auto.economictimes.indiatimes.com/news/aftermarket/e-vehicles-in-maharashtra-up-153-in-1-year-more-than-double-in-mumbai/88556310>

Telangana Tops Pan India ODF-Plus List

Telangana was ranked first in having the highest number of Open-Defecation-Free (ODF) Plus villages under the Swachh Bharat Mission (Grameen) Phase-II, as on 31 December 2021. Around 96.7% of villages in the state fall under the ODF-Plus list, followed by Tamil Nadu with 35.3% and Karnataka with 5.5%.

Read more:

<https://news.abplive.com/telangana/telangana-tops-in-the-highest-number-of-odf-villages-minister-ktr-lauds-panchayati-raj-1504078>

Tamil Nadu Targets to Make State Economy USD 1 Trillion by 2030

Tamil Nadu has set a target of making the state a 'USD one-trillion economy' by 2030. For this

purpose, a detailed action plan, called 'Towards One Trillion Dollar Economy', will be drafted to ensure that this vision is realised within the timeline. The state government's two new policies, Tamil Nadu Export Promotion Strategy and Tamil Nadu Fintech Policy, are expected to play a vital role in achieving the target.

Read more:

<https://www.thehindubusinessline.com/news/national/tn-govt-committed-to-make-the-state-one-trillion-dollar-economy-by-2030-governor/article38128748.ece>

Himachal Pradesh Releases Swarnim Jayanti Sports Policy

The policy is aimed at promoting sports at the grassroots level, creating world-class infrastructure and producing international players. The new policy lays stress on winter, adventure and water sports infrastructure to obtain geographical dividends in the tourism sector and discipline-specific competitive sports.

Read more:

<https://www.hindustantimes.com/cities/chandigarh-news/rakesh-pathania-launches-himachal-s-new-sports-policy-aims-at-developing-infrastructure-101642537195527.html>

3 States Emerge as Top Destinations for Grain-Based Ethanol Plants

Maharashtra, Uttar Pradesh and Chhattisgarh have emerged as the top three destinations for grain-based ethanol plants. They have attracted over 40% of the total projects approved in the past year after the Centre announced a scheme for the sector. The Union food ministry has given a green nod for 196 projects with a combined capacity to produce 8.5 billion litres of ethanol per annum so far.

Read more:

<https://www.thehindubusinessline.com/economy/agri-business/centre-approves-859-cr-ltr-grain-based-196-ethanol-projects/article64910725.ece>

Nagaland Launches AI-Based Platform to Tackle TB

The Nagaland government has launched an AI-based online application called 'qTrack', to combat TB in the Mon district. It is a chest X-Ray (CXR) interpretation tool trained on over 3.5 million CXRs and can identify up to 29 abnormalities.

Read more:

<https://www.northeasttoday.in/2022/01/21/nagaland-mon-district-launches-web-based-application-ai-component-to-combat-tb/>

Share of States in Central Taxes budgeted to rise by 9.6% in 2022-23

The Union Budget 2022-23 proposed to increase states' share in central taxes by 9.6% to Rs 8.17 trillion, from the revised estimates of Rs 7.45 trillion for 2021-22. The Union Budget 2021-22 had budgeted to transfer Rs 6.65 trillion central tax revenue to the states. The estimate has now been revised upwards by R 0.8 trillion to Rs 7.45 trillion. This indicates a 25.2% increase in transfers in 2021-22 compared to Rs 5.95 trillion in 2020-21.

Read more:

https://www.indiabudget.gov.in/doc/Budget_at_Glance/bag5.pdf

Over 55 Million Rural Households in India Given Tap Water Connections under JJM

More than 55 million rural households across the country have been provided tap water supply under the Jal Jeevan Mission (JJM), as of 2 January 2022, according to the Economic Survey 2021-22. Goa, Telangana, Puducherry, Dadra and Nagar Haveli, Daman and Diu, Andaman and Nicobar Islands, and Haryana have achieved the target of providing tap connections to 100% households.

Read more:

<https://www.thestatesman.com/india/90-crore-population-rural-india-gets-tap-water-supply-economic-survey-1503042772.html>

J&K Launches Single Window Portal

Jammu and Kashmir has become the first union territory across the country to be integrated with the national single-window system. As many as 130 industrial services have been made online on a single-window system and over 160 more services would be integrated this year.

Read more:

<https://www.tribuneindia.com/news/j-k/single-window-clearance-in-jk-367975>

'E-Girdwari' App Launched in Haryana

Haryana launched the 'e-Girdawari' app, in sync with the Digital India programme. The app provides a user-friendly interface to patwaris to perform inspection of crops by using tablets/mobile phones to record the crops

sown in each khasra and special girdawari for crop damage, along with reasons and extent of the damage.

Read more:

<https://timesofindia.indiatimes.com/city/chandigarh/haryana-launches-app-to-perform-girdawari/articleshow/89416645.cms>

Meghalaya Rolls out Inclusive Farmers' Welfare Schemes, FOCUS

Under the initiative, farmers will be categorized into producer groups and Rs 5,000 would be given to each member of the group. These funds can be used as seed money for upscaling farming activities.

Read more:

<https://economictimes.indiatimes.com/news/india/meghalaya-government-initiates-welfare-programme-for-farmers/articleshow/89509797.cms>

For Speedy Access to Justice, NITI Pushes ODR

NITI Aayog released the report 'Designing the Future of Dispute Resolution: The ODR Policy Plan for India', to scale dispute avoidance, containment and resolution online. The report is a culmination of the action plan made by a committee constituted at the peak of the Covid crisis by NITI Aayog on ODR in 2020 and chaired by Supreme Court Justice (Retd) AK Sikri.

NITI Aayog Releases Discussion Paper on Digital Banks



NITI Aayog has released a discussion paper titled 'Digital Banks: A Proposal for Licensing & Regulatory Regime for India'. The paper makes a case, and offers a template and roadmap for a digital bank licensing and regulatory regime for India. The discussion paper also recommends regulatory innovations such as digital bank license that hold the promise of solving for as well as mitigating the financial deepening challenges faced.

First-of-Its-Kind SDG Urban Index Launched

NITI Aayog has achieved yet another milestone with the launch of the inaugural SDG Urban Index and Dashboard (2021–22). The SDG Urban Index ranks

56 urban areas on 77 SDG indicators across 46 targets of the SDG framework. Shimla topped the index followed by Coimbatore and Chandigarh.

First National-Level Multidimensional Poverty Index Released

NITI Aayog is the nodal ministry for the Multidimensional Poverty Index (MPI). According to global MPI 2021, India's rank is 66 out of 109 countries. The national MPI project is aimed at deconstructing the global MPI and creating a globally aligned and yet customized India MPI for drawing up comprehensive reform action plans with the larger goal of improving India's position in the global MPI rankings.

NITI Holds Natural Farming Workshop

As a part of the Azadi Ka Amrit Mahotsav to celebrate and commemorate 75 years of progressive India, NITI Aayog is organizing a series of events from November 2021 to April 2022. In this connection, a national workshop on natural farming was organized by NITI Aayog. The workshop emphasized on the scientific validation of natural farming practices.

India Celebrates Transport Day at COP26



On Transport Day at COP26, India, represented by NITI Aayog, participated in the fourth ministerial dialogue of the Zero-Emission Vehicle Transition Council, a global forum on enhancing political cooperation on the transition to zero-emission vehicles. India also launched 'E-Amrit', a web portal on EVs. E-Amrit is a one-stop destination for all information on electric vehicles—busting myths around the adoption of EVs, their purchase, investment opportunities, policies, subsidies, etc.

NITI Aayog Releases Compendium of Best Practices on Home-Based Management of Covid-19

NITI Aayog released 'Home-Based Management of Covid-19', a compendium of best practices adopted by states to combat the pandemic. The report was launched by NITI Aayog Vice Chairman Dr Rajiv Kumar, Member (Health) Dr Vinod K. Paul, CEO Amitabh Kant, and Additional Secretary Dr Rakesh Sarwal. The compendium presents a holistic picture of various home-based care models adopted by the states and summarizes basic principles and practical recommendations.

AIM Launches Vernacular Innovation Programme

Atal Innovation Mission has come up with a first-of-its-kind Vernacular Innovation Programme (VIP), which will enable innovators and entrepreneurs in India to have access to the innovation ecosystem in 22 scheduled languages by the Government of India. To build the necessary capacity for the VIP, AIM has identified and will be training a Vernacular Task Force in each of the 22 scheduled languages.

NITI Aayog Release Report on Emergency and Injury Care

NITI Aayog released two comprehensive reports on the current status on emergency and injury care in India. The study assessed the prevailing status of 100 emergency and injury care centres in government and private hospitals in 28 States and two Union Territories of India, in addition to 34 district hospitals.

NITI Aayog Organizes National Workshop on Bamboo Development Mission

NITI Aayog organized a national-level workshop on bamboo development. Through the workshop, participants sought to holistically understand all components of the bamboo value chain—plantation, production, processing, standardization and utilization—in order to develop strategies and a roadmap for the development of a circular economy in the sector.

NITI Aayog Releases Fourth Edition of State Health Index



NITI Aayog released the fourth edition of the State Health Index for 2019–20. The report, titled 'Healthy States, Progressive India', ranked states and union territories on their year-on-year incremental performance in health outcomes as well as their overall status. Round IV of the report focuses on measuring and highlighting the overall performance and incremental improvement of states and UTs over the period 2018–19 to 2019–20.

NITI signs Sol with WFP

NITI Aayog signed a Statement of Intent with United Nations' World Food Programme (WFP). The partnership focuses on mainstreaming millets and supporting India in taking the lead globally in knowledge exchange by using the opportunity of 2023 as an 'International Year of Millets'. Further, the partnership aims to build resilient livelihoods for small-holder farmers and adaptation capacities for climate change, among others.

NITI Aayog and RMI Release Report on 'Banking on Electric Vehicles in India'

NITI Aayog, Rocky Mountain Institute (RMI), and RMI India released a report, titled 'Banking on Electric Vehicles in India', which outlines the importance of priority-sector recognition for retail lending in the electric mobility ecosystem. The report provides considerations and recommendations to inform the inclusion of EVs in the Reserve Bank of India's priority-sector lending (PSL) guidelines.

NITI Aayog and Bharti Foundation Launch Convoke

NITI Aayog, in partnership with Bharti Foundation, launched Convoke 2021-22. Convoke is a national

research symposium aimed at addressing challenges in imparting education and strengthening its quality with a focus on teachers, educationists, and heads of schools across India. Through this platform, schoolteachers, heads, and principals of government schools and teachers from Bharti Foundation network will be encouraged to use research-based solutions and showcase their efforts taken at the grassroots level in improving learning outcomes.

NITI Aayog, CSE Release 'Waste-Wise Cities'

NITI Aayog and Centre for Science and Environment (CSE) released *Waste-Wise Cities*, a comprehensive knowledge repository of how Indian cities are managing their solid waste. The report documents best practices from 28 cities in 15 states of India. The new report is the result of a country-wide study and survey jointly conducted by NITI Aayog and CSE. These thematic aspects range from source segregation, material recovery and technological innovations to the management of different kinds of wastes and systems such as biodegradables, plastics, e-waste, C&D waste and landfills.

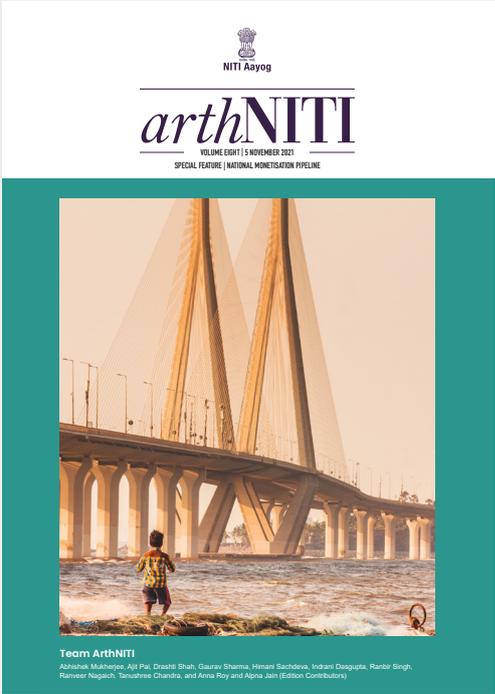
Union Minister Ashwini Vaishnaw Flags Off NITI Aayog's Fintech Open Summit



In an effort to showcase the importance of the fintech industry, NITI Aayog, in collaboration with PhonePe, AWS and EY, organized a three-week-long virtual summit, 'Fintech Open', from 7–28 February. The summit was inaugurated by Union Minister for Railways, Communications, and Electronics and IT Ashwini Vaishnaw. A first-of-its-kind initiative, Fintech Open brought together regulators, fintech professionals and enthusiasts, industry leaders, the start-up community, and developers to collaborate, exchange ideas and innovate.

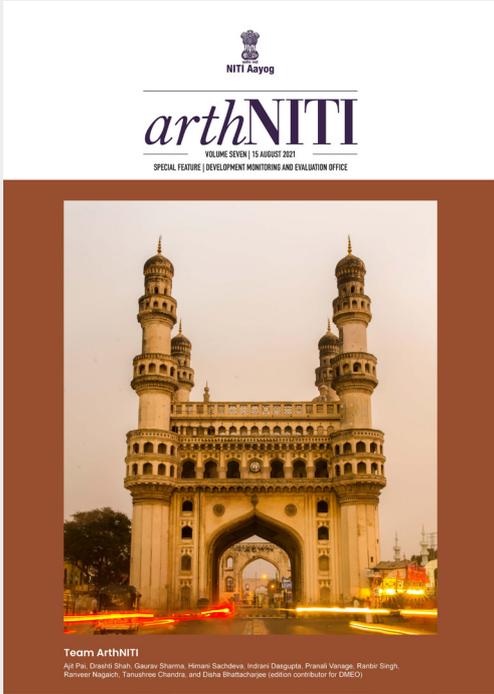
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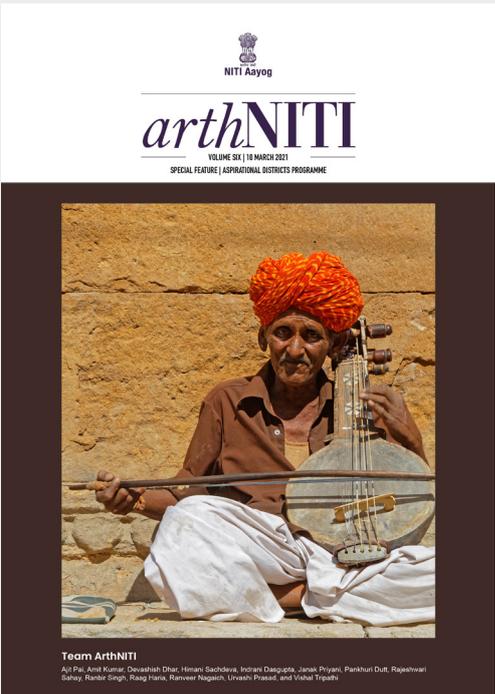
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 SPECIAL FEATURE | NATIONAL MONETISATION PIPELINE



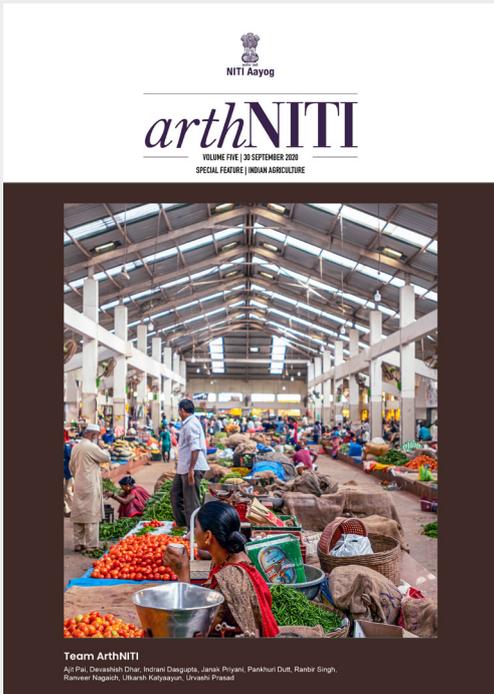
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VOLUME SEVEN | 31 AUGUST 2021
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