NEXT IAS

ECONOMIC SURVEY 2020-2021 VOLUME 1

Summary by NEXT IAS

01 CHAPTER

SAVING LIVES AND LIVELIHOODS AMIDST A ONCE-IN-A-CENTURY CRISIS

Saving a life that is in jeopardy is the origin of dharma
—Mahabharat (Shanti Parva, Chapter 13 Shloka 598)

About:

- In this unprecedented global crisis of Covid-19, India focused on saving lives and livelihoods by its willingness to take short-term pain for long-term gain.
- India recognized that while GDP growth will recover from the temporary shock caused by the pandemic, human lives that are lost cannot be brought back.
- This strategy tailored to India's unique vulnerabilities to the pandemic
  - As pandemic spreads via human contact, a huge population with high density inherently enables a higher pace of spread.
  - India has one of the largest most vulnerable elderly population.
  - India's overburdened health infrastructure exposed the country to a massive supply-demand mismatch that could have severely exacerbated fatalities.
- Thus, India imposed the most stringent lockdown at the beginning itself
  - It enabled flattening of the pandemic curve and
  - It provided the necessary time to ramp up the health and testing infrastructure.
- **Role of Lockdown in saving lives:** This chapter via data analysis tries to demonstrate that lockdown had a causal impact on saving lives and the economic recovery
  - India restricted the COVID-19 spread by 37 lakh cases and saved more than 1 lakh lives across the country.
- A stringency index was constructed to compare states to show that the under-or-over performance in cases and deaths (compared to the expected) correlates strongly with the stringency of the lockdown.
  - Higher Initial Stringency was Effective in controlling actual COVID-19 spread and deaths in States.
  - Uttar Pradesh, Gujarat, and Bihar have restricted the case spread the best;
  - Kerala, Telangana, and Andhra Pradesh have saved the most lives;
  - Maharashtra has underperformed the most in restricting the spread of cases and in saving lives
- **Relation of lockdown with Economic Recovery:** Similarly, the stringency index shows that V-shaped economic recovery also strongly correlates with the stringency of the lockdown.
  - Economic activity in States with higher initial stringency has rebounded faster during the year.
- **Impact of Covid on Economy:** Also, India recognized that, unlike any previous crises,
  - The Covid pandemic affects both demand and supply.
  - It leads to loss of productive capacity due to hysteresis caused by financial distress of firms and disruptions in the labor markets that can affect disposable income

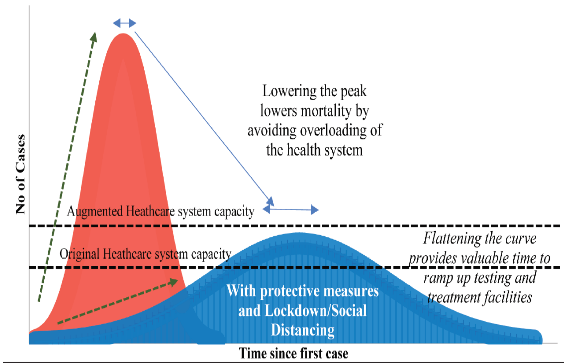
Thus, a slew of structural reforms was announced to help expand supply significantly in the medium to long term.

- **Steps for economic recovery:** Thus, at the onset of the pandemic, India's policies focused purely on necessities on the demand side.
  - During the unlock phase, demand-side measures have been announced in a calibrated manner.
  - A public investment program centered around the National Infrastructure Pipeline is likely to accelerate this demand push and further the recovery.
- The upturn in the economy while avoiding the second wave of infections makes India a unique case in strategic policymaking amidst a once in- a-century pandemic.

Covid-19: Once in a Century 'Crisis':

- The only strategy that seemed viable for containment of the pandemic was active surveillance, early detection, isolation and case management, contact tracing, and prevention of onward spread by practicing social distancing and safety precautions.
- **Various non-pharmaceutical interventions (NPIs)** – such as lockdowns, closure of schools and non-essential business, travel restrictions – were adopted to slow down the transmission of infection or 'flatten the epidemic curve'
  - It aimed to buy the health care system some time to handle the surge in demand for its services and the development of effective treatment and a vaccine.
- **The pandemic and associated lockdown measures engendered the largest economic shock** the world economy has witnessed in the last 150 years, thereby triggering a global recession this year.
  - This recession was highly synchronized as the fraction of economies experiencing an annual decline in national per capita is highest since 1870. Thus it is aptly called as "Great Lockdown"

- **The COVID crisis presented a trade-off between lives and livelihoods** as it required social distancing and limiting of physical interactions thereby restricting economic activities.
- India's policymaker's preference for the value placed on human lives versus the price of temporary economic restrictions was evident from humane policy focus on saving lives even while paying the price of temporary GDP decline. This got converted into a win-win in the medium to long term that saves both lives and livelihoods.



Flattening the Curve

Efficacy of Lockdowns in A Pandemic: Learnings from Spanish Flu:

- The pandemic curve needs to be flattened to spread the pandemic over time and enable more people to receive proper health treatment, lowering the mortality rate.
- Given the network effect, the transmission of pandemic becomes faster in dense population regions.
- **Data analysis of 1918 Spanish flu** showed that intense Lockdowns Controlled Mortality due to the Flu but without reducing economic activity and contributing to faster growth in the medium term.
- Cities that intervened with lockdowns earlier and more aggressively experience stronger recovery in the economic front in the long run.
- Thus, early lockdowns implemented during COVID 19 crisis and public health interventions emphasizing hand-washing, sanitization practices, and social/physical distancing were learnings from Spanish flu.

Research Driven Policy Response Amid Unprecedented Uncertatinity:

- Two fundamental strategies adopted to combat the pandemic:
  - **Mitigation:** Focuses on slowing the epidemic by reducing the R0 (combining home isolation, social distancing, etc)
  - **Suppression:** In the form of National lockdown carries enormous social and economic costs have the potential to rapidly reduce or suppress the transmission below threshold R0=1 thereby reducing the case incidence.

India's Humane Policy Response: Short-Term Pain, Longterm Gain:

- **Timings of the intervention:** Evidence from research and learnings from Spanish flu showed that timings of the intervention were crucial as population density plays a major role in aggravating the speed of spread of the pandemic at the onset.
- **Stringent Lockdown:** India imposed stringent national lockdown at an early stage and chose lives over livelihood as it had a clear objective of 'Jaan Hai to Jahan hai' and to 'break the chain of spread' before it reaches 'community transmission'.
- **5 T Strategy:** The 'hotspots' and 'containment zones' were identified and the lockdown provided the necessary time to put in place the fundamentals of the '5 T' strategy - Test, Track, Trace, Treat, Technology.
- **Delayed Peak:** It helped India to successfully delay the peak to September 2020 and flatten the pandemic curve thereby saving millions of 'lives' and outperforming pessimistic expectations in terms of cases and deaths.

Efficacy of Initial Lockdown in Controlling the Pandemic:

- **Cross-country analysis using a Panel Regression Model:** It has been shown that India has 37.1 Lakhs fewer cases than what was imagined and estimated by the model while actual cases in the USA are more than the estimated cases of 62.5 lakhs.
  - It delayed its first peak till mid-September 2020 after which rising mobility has been accompanied by lower daily new cases.
  - The institutional capacity (testing and health infrastructure) built during the initial period helped to cope with the peak caseload and sustain the controlled spread after the peak.
  - It is the only country other than Argentina that has not experienced a second wave.
  - Most countries had to re-impose intermittent lockdowns while India has been increasingly unlocking.
  - The model showed that Maharashtra has performed worst in the number of cases and deaths.
  - With a recovery rate of almost 96 percent, it has among the lowest fatality rates despite having the second-largest number of confirmed cases.
- The lockdown, therefore, was a critical instrument in "flattening the curve" and saving lives.

V-Shaped Economic Recovery due to Timely Stringent Lockdown:

- Learning from Spanish flu, India implemented an early and stringent lockdown from late March to May to curb the pace of the spread of COVID-19.
- This led to a 23.9% contraction in GDP as compared to the previous year's quarters.

- The economy was gradually unlocked since June 2020 and has experienced a V-shaped recovery since then.

Far-Sighted Policy Response for Economic Recovery:

- Need for social distancing and minimizing contact to tackle COVID 19 has meant that service sectors reliant on face-to-face interactions—particularly wholesale and retail trade, hospitality, and arts and entertainment— have seen larger contractions than manufacturing.
- The pandemic induced lockdowns led to local, regional, and global supply disruptions hitting economic activity – rendering a 'first-order' supply shock.
- This, in turn, has led to a demand shock through both
    - Disruptions in the labor market affect household income.
    - Through the precautionary motive to save in the uncertainty amidst the health crisis.
- **Step by Step Approach:** The fiscal policy response of the Government of India to the pandemic was strategized with a step-by-step approach.
- **During the first two-quarters of FY:2020-21,**
    - The Government ensured that funds for essential activities were available despite a sharp contraction in revenue receipts.
    - The initial approach was to provide a cushion for the poor and section of society and to the business sector (especially the MSMEs) to tide over the distress caused by disruption of economic activity.
- **The Pradhan Mantri Garib Kalyan Yojana (PMGKY)** was launched to ensuring
    - food security through the public distribution system,
    - direct benefit transfers to widows, pensioners, and women,
    - additional funds for MGNREGS, and
    - debt moratoria and liquidity support for businesses
- **During the Third Quarter**
    - With the easing of movement and health-related restrictions, the government transited in a calibrated fashion to support investment and consumption demand through Atmanirbhar 2.0 and 3.0
    - It waited for the right time as it knew the expenditure push, especially the capital expenditure would be most effective in stimulating 'growth' once there's the reduction in health-related curbs thereby boosting demand in the economy.
    - The calibrated stance of the Government was corroborated by increased savings in PMJDY accounts during April June Quarter while as the economy revived the account balances have shown a decline towards increasing expenditure.

Way Forward:

- **V-shaped recovery:** Despite the hard-hitting economic shock created by the global pandemic, India is witnessing a V-shaped recovery with a stable macroeconomic situation aided by a stable currency, comfortable current account, burgeoning forex reserves, and encouraging signs in the manufacturing sector output.
- **"Lockdown Dividend":** India is reaping the "lockdown dividend" from the brave, preventive measures adopted at the onset of the pandemic, which was based on the humane principle advocated eloquently in the Mahabharata that "Saving a life that is in jeopardy is the origin of dharma."
- **Not waste a crisis:** The policy maturity and the alacrity displayed to not "waste a crisis" has helped the country to save both 'lives' and 'livelihoods' in its unique way.
- **Short term pain- Long term gain:** It has shifted the focus away from the short-term pain created by the crisis to the potential for long-term gains engendered by the policy response.

MAJOR STRUCTURAL REFORMS UNDERTAKEN AS A PART OF ATMANIRBHAR BHARAT PACKAGE

Sector	Structural Reform Undertaken
	Deregulation and Liberalization of Sectors
Agriculture	• Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020 • Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020 • Essential Commodities (Amendment) Act, 2020
MSMEs	• New MSME definition covering almost 99 per cent of all firms enabling MSMEs to grow in size and create jobs • Removal of artificial separation between manufacturing and service MSMEs
Labour	• Enactment of four labour codes namely, Wage Code, Industrial Relations Code, 2020, Code on Occupational Safety, Health & Working Conditions Code, 2020 & Social Security Code, 2020 • 'One labour return, one licence and one registration'
Business Process Outsourcing (BPO)	• Simplification of the Other Service Provider (OSP) guidelines of the Department of Telecom. Several requirements, which prevented companies from adopting 'Work from Home' and 'Work from Anywhere' policies have been removed

MAJOR STRUCTURAL REFORMS UNDERTAKEN AS A PART OF ATMANIRBHAR BHARAT PACKAGE	
Sector	**Structural Reform Undertaken**
Power	• Tariff Policy Reform: DISCOM inefficiencies not to burden consumers, Progressive reduction in cross subsidies, Time bound grant of open access, etc. • Privatization of Distribution in UTs
PSUs	• PSUs in only strategic sectors • Privatization of PSUs in non-strategic sectors
Mineral Sector	• Commercial Mining in Coal Sector • Removal of distinction between captive and merchant mines • Transparent auction of mining blocks • Amendment to Stamp Act, 1899 to bring uniformity in stamp duty across States • Introduction of a seamless composite exploration-cum-mining-cum-production regime
Strengthening Productive Capacity	
Industry	• Production Linked Incentive (PLI) Scheme for 10 identified sectors • National GIS-enabled Land Bank system launched
Space	• Level playing field provided to private companies in satellites, launches and space-based services • Liberal geo-spatial data policy for providing remote-sensing data to tech entrepreneurs
Defence	• Corporatization of Ordnance Factory Board • FDI limit in the Defence manufacturing under automatic route to be raised from 49 per cent to 74 per cent. • Time-bound defence procurement process
Strengthening Productive Capacity	
Education	• PM-eVidya to enable multi-mode and equitable access to education • Manodarpan initiative for psychosocial support
Social Infrastructure	• Scheme for Financial Support to Public Private Partnerships (PPPs) in Infrastructure Viability Gap Funding (VGF) Scheme extended till 2024-25
Ease of Doing Business	
Financial Markets	• Direct listing of securities by Indian public companies in permissible foreign jurisdictions • Provisions to reduce time line for completion of rights issues by companies • Private companies which list NCDs on stock exchanges not to be regarded as listed companies
Corporates	• Including the provisions of Part IXA (Producer Companies) of Companies Act, 1956 in Companies Act, 2013 • Decriminalization of Companies Act defaults involving minor technical and procedural defaults • Power to create additional/ specialized benches for NCLAT • Lower penalties for all defaults for Small Companies, One-person Companies, Producer Companies & Start Ups • Simplified Proforma for Incorporating Company Electronically Plus (SPICe +) introduced
Administration	• National platform for recruitment: National Recruitment Agency to conduct a Common Eligibility Test • Revised guidelines on Compulsory retirement to remove ineffective or corrupt officials through Fundamental Rule 56(j)/(I) and Rule 48 of CCS (Pension) Rule • Faceless tax assessment and a 12-point taxpayers charter • Fast track Investment Clearance through Empowered Group of Secretaries

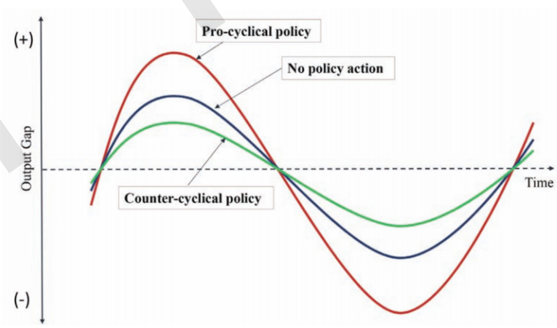
02 CHAPTER

DOES GROWTH LEAD TO DEBT SUSTAINABILITY? YES, BUT NOT VICE-VERSA!

"The state collects tax for the greater welfare of its citizens in the same way as the sun evaporates water, only to return it manifold in the form of rain" —Mahakavi Kalidasa's Raghuvansham

About:

- Need for fiscal spending amidst the COVID-19 crisis forces us to ask the following questions
  - Does growth lead to debt sustainability?
  - Or, does fiscal austerity foster growth?
- This Chapter establishes clearly that growth leads to debt sustainability in the Indian context but not necessarily vice-versa.
  - This is because the interest rate on debt paid by the Indian government has been less than India's growth rate by norm, not by exception.
- **Debt sustainability depends on the "Interest Rate Growth Rate Differential" (IRGD),** i.e., the difference between the interest rate and the growth rate in an economy.
  - **In advanced economies**, the extremely low interest rates which led to negative IRGD and placed limitations on monetary policy have caused a rethink of the role of fiscal policy.
    - This is because in already advanced economies, potential growth is lower.
  - **However, negative IRGD in India** – not due to lower interest rates but much higher growth rates – must prompt a debate on the saliency of fiscal policy, especially during growth slowdowns and economic crises.
- In the specific context of growth and debt sustainability, this chapter tries to clear confusion about causality – from growth to debt sustainability or vice-versa?
  - It studies the evidence across several countries to show that growth causes debt to become sustainable in countries with higher growth rates.
  - Such clarity about the causal direction is not witnessed in countries with lower growth rates.
- As the COVID-19 pandemic has created a significant negative shock to demand, **active fiscal policy can ensure** that the full benefit of seminal economic reforms is reaped by limiting potential damage to productive capacity.
  - **Active policy here refers to** one that recognises that fiscal multipliers are disproportionately higher during economic crises than during economic booms
- **As the IRGD is expected to be negative** in the foreseeable future, a fiscal policy that provides an impetus to growth will lead to lower, not higher, debt-to-GDP ratios.
- In fact, simulations undertaken till 2030 highlight that given **India's growth potential, debt sustainability is unlikely to be a problem even in the worst scenarios.**
- This chapter thus demonstrates the **desirability of using counter-cyclical fiscal policy** to enable growth during economic downturns.
- **It endeavours to**
  - Break the intellectual anchoring that has created an asymmetric bias against fiscal policy.
  - Provide the intellectual anchor for the government to be more relaxed about debt and fiscal spending during a growth slowdown or an economic crisis.
- The Survey's call for more active, counter-cyclical fiscal policy is not a call for fiscal irresponsibility.



Business cycle under various Fiscal Policy Stance

The Debate around Fiscal Expansion

- Amidst the COVID-19 crisis, the debate around higher Government debt to support a fiscal expansion is accompanied by concerns about its implications for future growth, debt sustainability, sovereign ratings, and possible vulnerabilities on the external sector.
- **While counter-cyclical fiscal policy is necessary to smooth out economic cycles,** it becomes critical during an economic crisis.
  - This is because fiscal multipliers, are unequivocally greater during economic crises as compared to normal economic scenario
  - **Fiscal Multipliers:** They capture the aggregate return derived by the economy from an additional Rupee of fiscal spending.
- **In a country like India, which has a large workforce** employed in the informal sector, counter-cyclical fiscal policy becomes even more paramount.

- **Advanced Economies face crowding out:** In advanced economies, where the public and private sector labour markets are not too segmented, fiscal spending can increase public sector employment, reduce the supply of labour in the private sector, bid up wages, and thereby crowd out private sector employment.
  - **However, in a country like India**, where the private and public sector labour markets are largely segmented, **such crowding out of private sector employment is minimal.**
- Thus, debt-financed public expenditure is more cost-effective to employ during recessions than during economic booms.

Fiscal policy (FP) stance	Recession (↓ GDP)	Expansion (↑ GDP)	Outcome
Pro-cyclical	Contractionary FP ↓ Govt. Expenditure or /and ↑ Taxes	Expansionary FP ↑ Govt. Expenditure or/and ↓ Taxes	Deepens recessions and amplifies expansions, thereby increasing fluctuations in the business cycle.
Counter-cyclical	Expansionary FP ↑ Govt. Expenditure or/and ↓ Taxes	Contractionary FP ↓ Govt. Expenditure or /and ↑ Taxes	Softens the recession and moderates the expansions, thereby decreasing fluctuations in the business cycle.

Interest Rate Growth Rate Differential (IRGD) and Debt Sustainability in India:

- The ease with which a government can reduce its debt-to-GDP ratio depends primarily on the interest rate-growth differential (IRGD) i.e., the difference between the interest rate and the growth rate in an economy.
  - **More negative the IRGD,** the easier (and quicker) it is for the Government to ensure debt sustainability.
    - A negative IRGD thus creates an enabling environment for debt sustainability.
  - **Conversely, if the IRGD is positive**, the harder (and slower) it is for the Government to ensure debt sustainability.
- **GDP Growth > Interest Rates:** As a norm in India, over the last two and a half decades, GDP growth rates have been greater than interest rates.
  - This inequality has thus led to a negative IRGD for most of the years during the last two and a half decades, which, in turn, has caused debt levels to decline.
  - However, trends in interest rate and growth rate in India over this period highlights a perceptibly higher variability in the growth rates relative to interest rates.
  - This implies that changes in IRGD are mostly attributable to changes in growth rates rather than the changes in interest rates.
  - Thus, it is a higher growth that provides the key to the sustainability of debt for India.

In India, Growth Leads to Debt Sustainability, Not Vice-Versa:

- How does the consistently negative IRGD affect the relationship between debt and growth in India? **Does higher growth lead to lower debt or lower debt cause higher growth?**
  - Conceptually, causality could flow in either direction.
- **Higher debt leading to lower growth:** The argument supporting higher debt leading to lower growth is based on potential crowding out of private investment due to public expenditure which is **discussed in the next section**.
- **Higher growth leading to lower debt:** Evidence over the last two-and-a-half decades demonstrates clearly that in India, higher GDP growth causes the ratio of debt-to-GDP to decline but not vice-versa.
- The lagged relationship between real GDP growth rates and change in general government debt-to-GDP levels was examined over the last 25 years
  - Over this period, real GDP growth rates and one-year-ahead change in general government debt-to-GDP levels show a significant negative correlation.
  - However, during the same time period, the correlation between change in general government debt-to-GDP levels and one-year-ahead growth rates turns out to be statistically indistinguishable from 0.
  - This implies that the direction of causality between the two variables is that **higher growth leads to lower public debt in India, but not vice-versa.**

Direction of Causality in other Economies:

- **Unlike India, direction of causality between growth and debt cannot be inferred** for the advanced economies (as their growth rate is low) when same data analysis was carried out.
- Thus, this difference is extremely important to highlight because the implications for fiscal policy – especially during the current crisis – are starkly different for India when compared to policies that mimic those followed by advanced economies.
- However, when above data analysis was carried out during the period of high growth for advanced economies
  - The result is identical to that obtained for India showing higher growth leads to lower debt-to-GDP but not vice versa.
- Thus, even in the advanced economies where GDP growth has been significantly lower than that in a high growth country such as India, high growth phases lead to lowering of debt but not vice versa.

Crowding out due to Public Expenditure

- The argument supporting higher debt leading to lower growth is based on potential crowding out of private investment and the **Ricardian Equivalence Proposition (REP).**
  - **REP states that forward-looking consumers** internalize the government's fiscal choices when making their consumption decisions.
  - Thus, if there is increase in government spending (or lowering of taxes) in the current period, forward looking consumers anticipate future tax increases and save in the current period to be able to pay for the future tax increases.

    - As a result, aggregate demand remains unchanged in the current period.
- **However, when REP doesn't hold** say due to proportional for instance due to proportional taxes
  - Higher public debt (i.e., lower public savings) may not be accompanied by increase in private savings and thus may also lead to lower total savings in the economy.
  - This may put upward pressure on the interest rates, resulting in crowding out of investment and thus negatively impacting the growth rates.
  - Also, higher levels of public debt are accompanied by more taxes in the future to pay for the debt, thereby leading to lower lifetime wealth.
    - This may decrease consumption and savings, eventually resulting in lower aggregate demand and growth rates.

India Scenario:

- The phenomenon of crowding out of private investment is based on the notion that supply of savings in the economy is fixed.
- **However, for emerging economies such as India,** an increase in public expenditure in areas that boost private sector's propensities to save and invest, may enable private investment rather than crowding it out.
  - This is because in an economy that has unemployed resources, an increase in government spending increases the aggregate demand in the economy.
  - **This may induce the private sector to increase their investment** in new machinery to cater to the increased demand, and hence put the unused resources to productive uses.
- Also, in rapidly growing economies the supply of savings is not fixed but expands with income growth.
- Also, for a country such as India with increased life expectancy and favourable demographics – in the form of a large population of working age – savings would be enhanced through meaningful jobs.
- Indian data analysis has found no evidences of crowding out in over the last three decades post liberalization. It is indicated by
  - No correlation was found between non-financial corporate debt-to-GDP and bank credit change with changes in government debt-to-GDP during FY 2001 and FY 2019.
  - No correlation found between public sector savings and private investments by the corporate sector or between public sector savings and private savings by the corporate sector for the period FY1991 to FY2019.

Structure of India's Debt:

- India's public debt-to- GDP has been significantly low compared to high global debt levels.
- India's overall debt levels as a per cent of GDP are the lowest amongst the group of G-20 OECD countries and also among the group of BRICS nations.
- **Moreover, public debt and overall debt level for India has declined** since 2003 and has been stable since 2011.
- The Government's debt portfolio is characterized by very low foreign exchange risk as the external debt is only 2.7 per cent of GDP (5.9 per cent of total Central Government liabilities)
  - Of the total public debt, 70 per cent is held by the Centre.
- **The long maturity profile of India's public debt** (issuance of longer tenure bonds) along with a small share of floating rate debt (floating rate debt of Central Government is less than 5 per cent of public debt) tends to limit rollover risks, and insulates the debt portfolio from interest rate volatility.
- Thus, considering the above factors and the fact that IRGD is expected to remain negative for India in the near future, simulations undertaken till 2030 highlight that given India's growth potential, debt sustainability is unlikely to be a problem even in the worst scenarios.

Policy Implications:

- The Covid-19 pandemic has created a significant negative shock to demand.
- The Government has been extremely pro-active in launching several seminal reforms to ensure high growth but their impact will manifest in the medium to long-term.
- **Thus, only an active fiscal policy** – one that recognises that the risks from doing too little are much more than the risks from doing too much – can ensure the economy remains in good health to avail the full benefit of these significant reforms.
- **With the IRGD expected to be significantly negative for India** in the foreseeable future, a well-designed expansionary fiscal policy stance during economic crisis can contribute to better economic outcomes in two ways –
  - First, it can boost potential growth with multi-year public investment packages that raise productivity.
    - At a time of excessive risk aversion in the private sector during this crisis, it will crowd in private investment, rather than crowd it out.
  - Second, it can prevent Indian economy from falling into a low wage-growth trap, as has happened in Japan during the last two decades and thus could generate higher-paying jobs and boost productivity.
- **With the National Infrastructure Pipeline (NIP)** already laying out the agenda for ambitious public spending, fiscal policy catering to funding NIP in the first few years can boost growth and thereby be self-financing.
- Practical fiscal rules should be framed in Indian context that should for fiscal policy to be countercyclical to respond to slowdowns in the economy.

03 CHAPTER

DOES INDIA'S SOVEREIGN CREDIT RATING REFLECT ITS FUNDAMENTALS? NO!

"Where the mind is without fear and the head is held high ...
Into that heaven of freedom, my Father, let my country awake" —Rabindranath Thakur

About:

- Despite being the fifth largest economy in the world, India has been rated as the lowest rung of the investment-grade (BBB-/Baa3) by sovereign rated agencies.

What is meant by Sovereign Credit Rating?

- A sovereign credit rating is an independent assessment of the creditworthiness of a country or sovereign entity.
- It is done globally by a credit rating agency such as S&P and Moody's.
- It provides investors insights into the level of risk associated with investing in the debt of a particular country.
- These agencies evaluate the economic parameters and political environment of a country before providing a rating.
- **Investment Grade Vs Speculative Grade:** Bonds with a rating of BBB- (on the Standard & Poor's and Fitch scale) or Baa3 (on Moody's) or better are considered "investment-grade."
- Bonds with lower ratings are considered "speculative" and often referred to as "high-yield" or "junk" bonds.

Interpretation	Fitch and S&P	Moody's	
Highest quality	AAA	Aaa	Investment Grade
High quality	AA+	Aa1	
	AA	Aa2	
	AA–	Aa3	
Strong payment capacity	A+	A1	
	A	A2	
	A–	A3	
Adequate payment capacity	BBB+	Baa1	
	BBB	Baa2	
	BBB–	Baa3	
Likely to fulfill obligations, on going uncertainty	BB+	Ba1	Speculative Grade
	BB	Ba2	
	BB–	Ba3	
High-risk obligations	B+	B1	
	B	B2	
	B–	B3	
Vulnerable to default	CCC+	Caa1	
	CCC	Caa2	
	CCC–	Caa3	
Near or in bankruptcy or default	CC	Ca	
	C	C	
	D	D	

Credit Rating Scale Comparison between some major CRAs

Bias towards Emerging Economies:

- Emerging economies such as India and China has been constantly downgraded by credit rating agencies despite better performance in the vital economic parameter.
- Generally, the fifth-largest economy is rated with AAA rating by agencies.
- But while rating China and India, these rating agencies showed bias attitude.
- China was rated A-/A2 in 2005 when it was the fifth-largest economy and now India has been rated BBB-/Baa3.

India's Credit Rating:

- Despite India's growth rate of more than 8% during many years in the decade of 1990 and early 2000s, India's credit rating was kept at "speculative grade".
- India's credit rating was upgraded to investment grade by Moody's in 2004, Fitch in 2006, and S&P in 2007.
- During most of the decade of 1990 and early 2000s, India's high rate of economic growth co-existed with a sovereign credit rating of "speculative grade".

Factors that determine Credit Rating in India

- Following are the factors which are taken into account while determining the Sovereign Rating by credit rating agencies.
- **Political Factors**
    - Political stability,
    - Rule of law,
    - Control of Corruption,
    - Investor Protection,
- **Economic Factors**
    - GDP growth rate,
    - Inflation,
    - General government debt (as a percent of GDP),
    - Cyclically adjusted primary balance (as a percent of potential GDP),
    - Current account balance (as a percent of GDP),
    - Ease of doing business,
    - Short-term external debt (as a percent of reserves),
- Being a democratic country, India maintains most of the above political parameters.

- Further, most of the economic factors have been fulfilled due to the high growth rate in the last two decades.

India's Economic Parameter: Truth Vs Rated:

- India has consistently been rated below expectation as compared to its performance on various parameters which are taken by rating agencies during the period 2000-20.
- Following are the parameters which show the biased attitude of rating agencies towards India.

Foreign Currency Debt VS FOREX Reserve:

- Although India bears a significant amount of debt in foreign currency denomination due to the comfortable size of its foreign exchange reserves it can pay the short-term debt of the private sector as well as the entire stock of India's sovereign and non-sovereign external debt.
- **Government's Debt:** According to the Department of Economic Affairs, India's sovereign external debt as a percent of GDP stood at a mere four percent as of September 2020.
- Further, 54 percent of India's sovereign external foreign currency-denominated debt was owed to multilateral and IMF as of end-March 2020, which is not expected to impact credit rating assessments.
- **Non-Government Debt:** Since India does not have full capital account convertibility, the private sector has to repay its foreign currency-denominated debt by exchanging rupees through the Forex reserves.
- India's nongovernment short term-debt as a percent of FOREX reserves stood at 19 percent as of September 2020 which is also repayable.
- **Total Debt Repayable:** Hence, India's FOREX reserves stood at US$ 584.24 as of January 15, 2021 (RBI), greater than India's total external debt (sovereign and non-sovereign) of US$ 556.2 bn as of September 2020.
- **Underrated:** Despite better FOREX reserve and its ability to payback, India has consistently been rated much below expectation for its level of short-term external debt (percent of reserves) during the period 2000-20 as compared to other countries with partial capital account convertibility.

Effect of India's Sovereign Credit Rating Downgrades:

- **Short term impacts:** Short term impacts of credit rating downgrades can be seen in the swing in Sensex and exchange rate.
- **Medium-term impact:** There is a larger impact on Sensex over a month due to credit rating downgrades.
- **Long-Term Effect:** Long-term impacts of credit rating downgrades can be seen in the economy when Sensex plunges for a longer time every year, constant devaluation of Rupee against the dollar over the year, and decrease in Foreign portfolio Investment over the year.

Limitations of the Sovereign Rating Downgrades on Indian Economy:

- **Foreign Direct Investment (FDI):** International investors are attracted towards an economy by observing its sovereign rating which reflects its economic and political stability.
- A negative rating by an agency results in less investment in an economy resulting in a negative impact on its economic development.
- **Investor's confidence:** Better sovereign rating by credit rating agency boosts investor's confidence.
- It leads to long-term investment by them in the economy in form of FDI rather than FPI (Foreign Portfolio Investment).
- **Impact on Sovereign Bonds:** Better sovereign rating by credit rating agencies promote sovereign bonds in the international market. Further, investments in sovereign bonds with domestic currency denomination increases the value of the domestic currency.

Way Forward:

- India's sovereign credit ratings do not reflect its fundamentals i.e. the growth of the emerging market has always been negated by rating agencies.
- It can be seen by examples of China and India when both became the fifth-largest economy at one point in time.
- Further, negative credit ratings impact the inflow of FDI and devaluate sovereign bonds in the international market.
- Despite zero sovereign default history and good performance in other economic parameters, India has been downgraded by most of the credit rating agencies.
- India must take up this issue international forums to make sovereign rating methodology more transparent.

Failure of Credit Rating Agencies to Predict Economic Crisis

Case I: East Asian Crisis (1997)

- Different economists have opined that Credit Rating Agencies (CRAs) aggravated the East Asian crisis by first failing to predict its emergence and thereafter becoming excessively conservative.
- CRAs downgraded East Asian crisis countries more than what would have been justified by these countries' worsening economic fundamentals.
- This adversely affected the supply of international capital to these countries and thus deepening the crisis in affected economies.

Case II: Eurozone Crisis (2007)

- Credit rating agencies failed to estimate the European debt crisis which later turned out to be the Global Financial Crisis in 2008. If the European Debt Crisis would have estimated, the latter could have been checked.

04
CHAPTER

INEQUALITY AND GROWTH: CONFLICT OR CONVERGENCE?

Poverty is the parent of revolution and crime. —Aristotle

About:

- After the Global Financial Crisis (2008), it was concluded that - **'Inequality is an essential feature of capitalism.'**
    - It can be assessed by the fact that there is direct correlation between inequality and negative impact on various 'Socio-Economic indicators' such health, education, life expectancy, infant mortality, birth and death rates, fertility rates, crime, drug usage and mental health.
- **These impacts are similar to impact of poverty** (low Per-capita Income) on these 'Socio Economic Indicators' but the impact is lesser than former.
- **Conflict:** This creates a state of conflict between economic growth and inequality, thus leading of debate whether the current model of economic growth is sustainable for socio-economic growth as well or not.
- **Aim of the Chapter:** In this chapter, the Survey answers the question whether India should focus on removing inequality or on economic growth?

> - **Note:** Per-Capita income is globally considered as one of the measure of poverty.
> - The survey aims to compare impact of Per-Capita Income and widening inequality gap in India and advanced economies around the world.
> - Multidimensional Poverty also considers improvement in standard of living as direct consequence of rise in per capita income.

Impact of inequality and Per-Capita Income: India Vs Advanced Economies:

- The Survey highlights that both economic growth and inequality have similar relationships with socio-economic indicators.
- In developed economies, inequality has more adverse impact on socio–economic indicators than per-capita Income.
- But in India economic growth and inequality converge in terms of their effects on socio-economic indicators.

Impact of different socio-economic indicators on poverty and inequality:

- **Health:** The index of health outcomes correlates positively with both inequality and income per capita across the Indian states.
    - However, across the advanced economies, inequality correlates negatively with the index of health and social outcomes while income per capita correlates positively.
- **Drug Usage:** Neither inequality nor income per capita among Indian states correlate strongly with drug usage.
    - However, inequality correlates strongly with drug usage in the advanced economies.
- **Mental Health:** On mental health, the effects of inequality and income per capita remain similar across the Indian states and the advanced economies.
- **Education:** There is similar impact of inequality and income per capita in India on education.
    - However, in developed economies, income per-capita does not impact education sector while inequality has adverse impact on education.
- **Life Expectancy:** There is similar impact of inequality and income per capita in India on life expectancy.
    - However, in developed economies, income per-capita does not impact life expectancy while inequality has adverse impact on it.
    - Mortality rate has similar trends in India and advanced economies.
- **Other indicators:** Almost all other socio-economic indicators have similar trends in India and advanced economies.
    - These indicators include crime rate, death rate, birth rate and total fertility.
- **Asset and Consumption Pattern in India:** There is clear co-relation between assets in possession and consumption pattern.
    - In India, the states which have greater consumption inequality also have greater asset inequality.
- **Conclusion:** Hence, it can be concluded that India has similar impacts of inequality and poverty on its socio-economic indicators than advanced economies.

Inequality and Poverty: Why do both need to be distinguished?

- **Inequality:** It refers to the degree of dispersion in the distribution of assets, income or consumption while poverty refers to the assets, income or consumption of those at the bottom of the distribution.

- **Poverty:** When a person consumes goods and services below a certain threshold then that person is termed as Poor.
- **Relationship between Poverty and Inequality:** When poverty is measured in relative term then it is termed as 'inequality'.
- **For Example:** If Mohan and Ram earn Rs. 100 and Rs. 50 and Rs. 20 is poverty line, then both are not poor.
    - But, when their relative poverty is measured, Ram is poorer than Mohan and this leads to inequality.

Relative impact of economic growth and inequality on poverty in India:

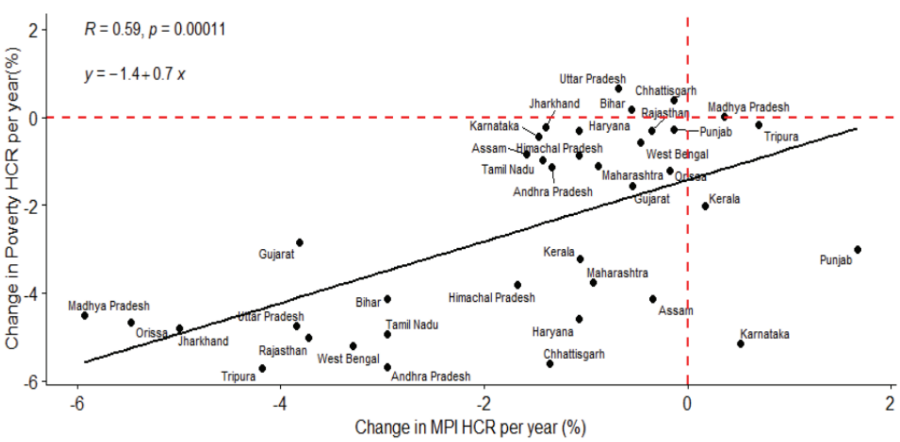
- **Estimation Methodology:** Currently, Multi-dimensional Poverty Index (MPI) is best accepted method to gauge to measure poverty.
- **It is based on three dimensions – education, health and standard of living** which is estimated nu using ten indicators viz; education attainment, year of education; nutrition and mortality; and electricity, drinking water, sanitation, cooking gas, housing, and assets.
- **Headcount Ratio (HCR)** counts persons as multi-dimensionally poor if their composite score is more than 0.33.
    - HCR of MPI is interpreted as proportion of population that is multi-dimensionally poor.
- **Estimated Outcomes:** It has been estimated by the survey that states that witnessed large reduction in poverty, using the official estimates based on consumption, experience proportional reductions in multi-dimensional poverty as well.

India's growth trend in relation to poverty estimation:

- **Pre-Liberalization growth:** World Bank in a report estimated that India could achieve sustained decline in poverty during 1970s-1990s only when the GDP growth picked up from 3.5 per cent in the initial years.
- Rise in the growth of mean consumption was responsible for approximately 87 per cent of the cumulative decline in poverty, while redistribution contributed to only 13 per cent.
- Different economists have opined that economic growth had a bigger impact on reducing poverty rather than inequality.
- The findings reinforce previous studies on the empirical relation between growth and poverty in India.
- **Post-Liberalization growth:** After analyzing six decades of data from 1957 to 2012 for India, it has been found that growth reduced poverty, and their association has acquired more strength after the 1991 reforms.
- It has also been found that the pattern of growth has changed significantly after 1991.
- Poverty is concentrating more and more in urban areas, as now one-in-three poor is living in urban areas, which was about one-in-eight in the early 1950s.
- In the post-liberalization period urban growth and non-agricultural growth has emerged as a major driver of national poverty reduction including rural poverty.

Conclusion:

- It has been established that relationship between Inequality and socio-economic outcomes and economic growth and socio-economic outcomes is different in India from that observed in advanced economies.
- Thus, unlike in advanced economies, in India, economic growth and inequality converge in terms of their effects on socio-economic indicators.
- It has also been established that economic growth has a far greater impact on poverty alleviation than inequality.
- India's current model of economic growth is more suitable for poverty alleviation than to fight inequality.
- Hence, India must focus on poverty alleviation rather decreasing inequality gap.
- After attaining a level of economic development, India would be focusing on redistribution of resources (decreasing inequality).



Correlation between poverty based on consumption and multi-dimensional poverty

05
CHAPTER

HEALTHCARE TAKES CENTRE STAGE FINALLY!

It is health that is real wealth and not pieces of gold and silver

—Mahatma K. Gandhi

About:

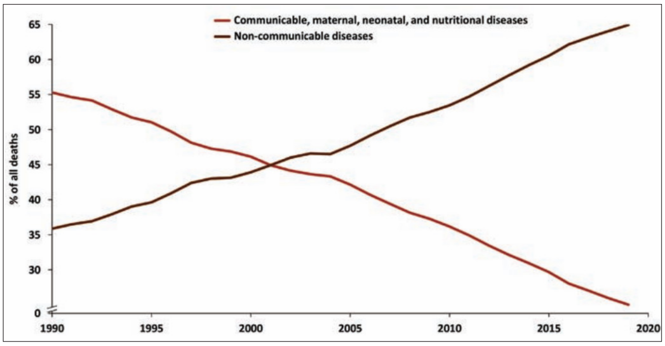
- A nation's health depends upon citizen's access to an equitable, affordable and accountable healthcare system and the domestic economic growth is affected by healthy labor productivity and burden of illnesses.
- The ongoing pandemic has shown how a healthcare crisis can get transformed into an economic and social crisis, highlighting the interlinkage between healthcare and other sectors of the economy.
- However, 'saliency bias' must be avoided wherein the policy over-weights a recent phenomenon that may represent a six-sigma event that may not repeat in the future in the same manner.

Key Highlights:

- **Public Spending on healthcare:** Prioritizing healthcare budget reflects the protection of the vulnerable to the financial hardships on account of Out-of-Pocket Expenditure (OOPE).
    - The Economic Survey 2021 highlights that a small increase in public expenditure on healthcare reduces OOPE drastically. Increasing the health spending from 1 to 3% reduces OOPE from 60 to 30%.
    - A similar trend was seen in China, the Philippines, Thailand, Indonesia, and Pakistan.
    - Further, life expectancy in a country correlates positively with per-capita public health expenditure. Increasing life expectancy from 50 to 70 years could also raise the economic growth rate by 1.4 % per year (WHO 2004).
    - Maternal Mortality correlates negatively with increased public health expenditure.
- **Systematically designing Healthcare:** The healthcare systems do not self-organize using the force of free-market because of the following aspects of the healthcare sector-

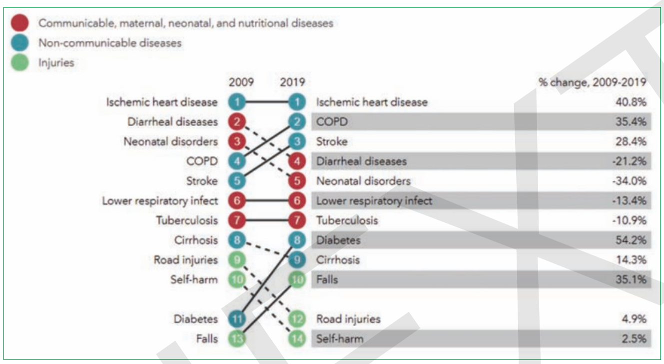
S.N.	Aspect	Required System Design
1.	**Uncertainty/Variability in Demand-** Inelastic demand (especially for emergency care), and uncontrolled factors drive the demand for healthcare.	Health insurance can reduce macroeconomic level healthcare risk.
2.	**Information Asymmetry-** Patients mostly remain unaware of the quality of healthcare they receive and often rely on the reputation of the hospital or health service provider. A conflict of interest may arise between doctors and patients on account of pre-negotiated pricing and the type of procedures used. E.g., C-sections fetch more monetary incentives for doctors.	Healthcare systems must be designed to preserve consumer faith, investment and avoid market failure.
3.	**Hyperbolic Tendencies-** Risky individual behavior such as not using masks, smoking etc. create negative externalities for the entire healthcare system through higher costs and poorer outcomes, and individuals may not purchase health insurance.	Actively shaping and structuring healthcare market because most well-functioning health systems are structured as oligopolies purchasing from oligopsony, instead of individual consumers purchasing from an individual providers.

- **COVID-19 and India's Healthcare Policy:**
    - **"Saliency Bias":** The healthcare policy must decide upon the relative importance of communicable vs. non-communicable diseases because the present pandemic can make the healthcare policy a victim of Saliency Bias, i.e., overweighing the recent phenomenon of a pandemic by focussing more on it.
    - However, the National Health Portal reported that between 1990-2016, the share of Non-Communicable Diseases increased from 37% to 61% of all the deaths in India.



Proportion of communicable and non-communicable diseases in India

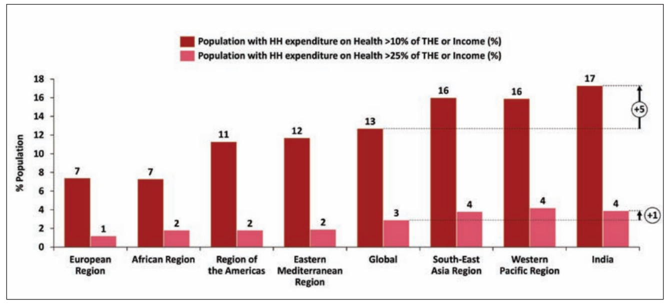
- The Survey highlights that a better healthcare infrastructure does not insure against communicable disease, as happened during the pandemic. As even advanced economies could not deal effectively with the present pandemic. The focus must be on building the healthcare system generally rather than a specific focus on communicable diseases.



NCD's: one among top 10 reasons for deaths

Present Healthcare Scenario:

- India under-performs as compared to the other Low and Lower Middle Income (LMIC) countries despite improvements in access and quality of healthcare provided. India ranks 145th out of 180 countries in the Global Burden of Disease Study of 2016.
  - **Poor health outcomes:** China, Bangladesh, Bhutan, etc. have improved better than India in MMR and IMR.
  - **Low access and utilization:** At 3-4%, the hospitalization rates in India are among the lowest in the world. Despite an increasing burden of NCD, lower life expectancy, higher MMR, and IMR. This shows that there exist low healthcare access and utilization.
  - **High Out of Pocket Expenditure (OOPE):** Out of Pocket Expenditure in India is nearly 60%, one of the highest in the world according to the World Health Statistics 2020.



Comparison of Health Expenditure across different regions

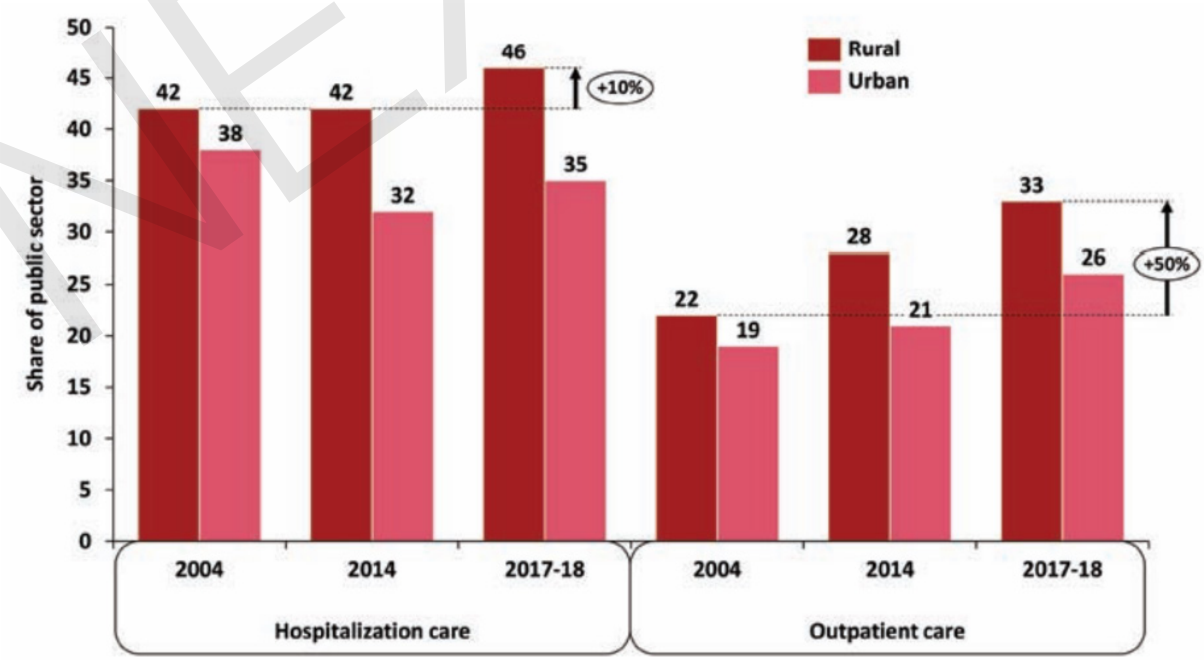
  - **Reducing inequity:** The distribution of the public subsidy has improved in favor of the poor, especially in maternity and child healthcare. Institutional deliveries have increased and the percentage of the poorest utilizing prenatal care through public facilities has increased from 19.9% to 24.7% from 2004 to 2018, with a similar trend for post-natal care.
  - **Low budget allocation:** Health is a state subject and therefore state spending on health is important, which was 66% in 2017 (National Health Accounts). However, India lags behind its peers. Further, the allocation varies as per state. While healthcare spending per capita increases with the GSDP per capita, healthcare spending as a percent of GSDP decreases with the GSDP per capita. Thus, the richer states spend a lower proportion of their GSDP on healthcare. A higher per capita spending reduces OOPE, in line with global findings.
  - **Low human resources for health:** WHO has identified healthcare worker density as 44.5 per 10000 population to achieve SDGs by 2030 and India has nearly 23 as the density, with variability across states and an adverse mix of healthcare professionals, doctors/nurse-midwives ratio.
- **Unregulated private enterprises and market failures:** Around 74% of outpatient care and 65% of hospitalization care is provided through the private sector in urban India but unregulated private enterprises are a cause for concern due to costlier unplanned re-admissions, higher costs of treatment (inpatient and outpatient) compared to the public sector.
- There is a low level of trust in the Indian healthcare sector. The problem of asymmetric information in healthcare is also reflected in the substantial variation in costs for treating the same disease between the public and private sector.
- **International Example:** The healthcare policymakers should consider creating agencies to assess the quality of the healthcare providers – both doctors and hospitals. The Quality and Outcomes Framework (QOF) introduced by the National Health Service (NHS) in the United Kingdom 2004 as well as other quality assessment practices introduced by NHS provide a good example.

- The NHS quality assessment practices included national standards for the major chronic diseases, annual appraisal of all doctors working in the NHS, and widespread use of clinical audits to compare practices, sometimes with the public release of data. These should be evaluated carefully and considered for implementation.

- **Telemedicine:** The Survey mentions that the COVID-19 pandemic saw increased adoption of telemedicine, with eSanjeevani OPD (a patient-to-doctor teleconsultation system) recording almost a million consultations since April 2020.
  - It correlates positively with internet penetration in a state and has a bearing on reducing geographic disparities in healthcare access and utilization.

Way Forward:

- **Ensuring quality:** Healthcare policymakers should consider creating agencies to assess the quality of the healthcare providers, similar to the Quality and Outcomes Framework (QOF) introduced by the National Health Service (NHS) in the UK. Quality assessment practices such as national standards for the major chronic diseases, annual appraisal of all doctors, clinical audits to compare practices, can be implemented.
- **Reducing information asymmetry:** Data from National Digital Health Mission can be used along with artificial intelligence to reduce the information asymmetry regarding patients.
- **Insurance penetration:** Information asymmetry must also be reduced to improve insurance penetration and quality of insurance products and reduce the burden of insurance premiums.
- **Regulation:** A sectoral regulator to undertake regulation and supervision must be considered because regulation is a key lever for governments to affect the quantity, quality, safety, and distribution of services in health systems.
- **Telemedicine** must be harnessed fully to improve healthcare access and this requires investment in internet connectivity and infrastructure.
- **National Health Mission**, which has mitigated inequity, must continue in conjunction with Ayushman Bharat Scheme.
- **The National Health Policy 2017** envisages expansion of health expenditures from 1% to 2.5-3 % of GDP to reduce Out of Pocket Expenditure on healthcare to 30%.
- **The private healthcare sector** provides the bulk of healthcare. Relevant policies and regulations must curb information asymmetry and market failure. WHO highlights the same.
- **Infrastructure:** Develop agile infrastructure for health. Every hospital may be equipped so that at least one ward in the hospital can be quickly modified to respond to a national health emergency while caring for the normal diseases in usual times.
- **Leveraging technology:** Technology-enabled platforms act as an alternate distribution channel for remote delivery of healthcare services, ensuring last-mile connectivity.



Share (per cent) of public sector in total healthcare, hospitalisation care and outpatient care

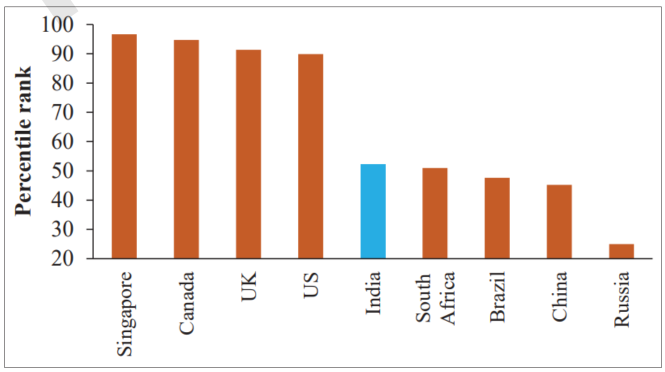
06 CHAPTER

PROCESS REFORMS: ENABLING DECISION MAKING UNDER UNCERTAINTY

International comparisons show that the problems of India's administrative processes occur less on account of lack of compliance to processes or regulatory standards, but rather due to over-regulation.

Regulatory effectiveness and its problems:

- **Effectiveness:** The Economic Survey 2021 points out that India performs better than its peers for having regulations in place and compliance to processes. But the regulatory effectiveness in reality suffers from undue delays, rent seeking, complex regulations and quality of regulation.
    - Banking on the **'World Rule of Law Index'** 2020 published by World Justice Report which captures compliance to due processes, effectiveness, timelines etc., the Survey highlights that India is relatively good at complying with processes, but lags in regulatory effectiveness.
    - Compared to BRICS, India fares better (except South Africa) in terms of respecting due process but worse than them in terms of effectiveness of those standards.
    - **Similarly, the World Bank's Ease of Doing Business (EoDB) report (2020)** shows that despite improving overall EoDB rank, India still lags behind in the sub-categories 'Starting a business' and 'Registering Property' where the its rank is 136 and 154 respectively, on account of large number of time-taking procedures to start and operate a company.
    - Having regulations and enforcing process in one thing whereas effectiveness is another.
- **Incomplete regulations:** Over-regulation results from not recognizing the inevitability of incomplete contracts and regulations in a world full of uncertainties. A contract can never fully capture all the future situations.
    - **The Survey highlights that incomplete regulations become inevitable** when the reality of incomplete contracts is acknowledged.
    - Regulators and policy-makers do not know the future for certain and therefore it is impossible to draft solution for every scenario, which may even be contrary to certain assumptions held previously.
- **Discretion:** Incomplete regulation makes a case for discretion in decision-making. The problem cannot be overcome by incorporating more detailed regulations either because complex rules and regulations may cause them to be interpreted in multiple ways.
    - The Survey points out that discretion and rules are not in a zero-sum relationship, such that the more rules there are the less the discretion there is and visa-versa.
- **Opacity:** Increasingly complex rules make it difficult for a third party to monitor how discretion is exercised.
- **Stringency:** The Survey explains that more stringent regulations may not necessarily reduce the room for discretion for regulators. Eg. The Dodd-Frank Act of the USA enacted after the Global Financial Crisis of 2008 was 848 pages long and had 390 new Rules. This increased the 'complexity risk' of the Act as it made bank board's responsible for 184 new activities - an impossible task.
- **Regulatory default:** Regulation may be measured in terms of objective parameters whereas supervision may not be. Thus, regulators and decision-makers would prefer to substitute supervision with more and more regulations, irrespective of their effectiveness.
    - **Bureaucrats** may even choose not to exercise discretion where it is available, substituting supervision with mechanical regulations, such as in the case of tender bidding process, so as to avoid future questioning.



Cross country comparison of Rule of Law indicator

Overcoming Problems:

- **Strengthen ex ante accountability:** Governance in institutions can be strengthened by vesting more power in boards and then holding them more accountable ***ex ante***, instead of relying too much on *ex-post* audits.
- **Bringing transparency in decision-making process:** Transparency, apart from having intrinsic value, also promotes trust in public institutions and makes market efficient. The discretion needs to be balanced with the transparency in decision making.

- The Survey cites the example of transparency in Government eMarketplace (GeM) for public procurement, which has resulted in reduction of prices for goods by 15-20% on an average, compared to tender, rate contract and direct purchase rates used earlier or as available on other medium.

- **Building resilient ex-post resolution mechanism:** Uncertain outcomes necessitate this step. The Survey highlights that there must be an efficient legal system (courts and institutions) such as Insolvency and Bankruptcy Code (IBC), Debt Recovery Tribunals etc., reduction in litigation costs, effective dispute resolution and contract enforcement.
  - Further, the legal system is required not to fix ***ex-ante*** issues in the system but to be used as an *ex-post* dispute resolution mechanism.

Examples of Administrative Process Reforms

Labour Reforms

- Labour falls under the Concurrent List of the Constitution, therefore both Parliament and state legislatures can make laws regulating labour.
- There were over 100 state and 40 central laws regulating various aspects of labour such as the resolution of industrial disputes, working conditions, social security and wages, making the landscape of labour regulation very complex.
- To rectify this, Government merged the existing 29 central labour laws into 4 labour codes. The Code on wages was passed in July 2019. In Setember 2020, three bills (i) Industrial Relations Code, 2020, (ii) Code on Occupational Safety, Health & Working Conditions Bill, 2020 (iii) Social Security Code, 2020 were passed in the parliament.

Reforms in the Other Service Providers (OSP)

- The regulatory framework for Other Service Providers (OSP) was till recently, outdated and complex.
- For instance, the Business Process Outsourcing (BPO) industry increasingly runs on global cloud-based systems but Indian regulations restricted its use and insisted on a local EPABX.
- Further, there were restrictions on Work from Home and onerous registration requirements.
- Hence, to reduce the compliance burden of the BPO industry, government announced new guidelines on OSPs on 5th November 2020.
- Under the new regulations, the registration requirement for OSPs has been done away with altogether and the BPO industry engaged in data-related work has been taken out of the ambit of OSP regulations

Recent measures adopted by the government:

- **Labour Codes:** Labour being in Concurrent List, India had more than 100 state and 40 central laws related to it, multiplicity of provisions. Government merged the existing 29 central labour laws into 4 labour codes and passed three Bills in the Parliament
  i. Wage Code, 2020
  ii. Industrial Relations Code, 2020,
  iii. Code on Occupational Safety, Health & Working Conditions Bill, 2020
  iv. Social Security Code, 2020.
- **Other Service Providers:** The regulatory framework for OSP was modified to account for the changing scenario in terms of using cloud-services, work from home requirements, compliances, thereby resulting in liberalization of the BPO industry.
- **Rationalization of autonomous bodies:** Since independence, many autonomous bodies got created and it was required to prune them to control costs and provide accountability, transparency and efficient supervision. Thus, All India Handloom Board, All India Handicrafts Board, Cotton Advisory Board and Jute Advisory Board were closed.
  - Further, government approved merger of four of its film media units, namely Films Division, Directorate of Film Festivals, National Film Archives of India, and Children's Film Society, India into the National Film Development Corporation (NFDC) Ltd.

Way Ahead:

- In a world full of uncertainty and complexity, it's not possible to substitute effective supervision with more prescriptive regulation.
- **There is a need to create simple regulation** and complement the same by providing flexibility and discretion to the supervisor.
- Simplifying processes and extending them to include institutional architecture is in line with the government's idea of 'Minimum Government and Maximum Governance'.
- Transparency of Rules Act must be enacted to end any asymmetry of information regarding rules and regulations faced by citizens and keep them updated regularly.
- The reform solves for the problem that rules frequently change and often the citizen has to follow a long paper trail of circulars and notifications to know the current requirements. Under this act, all departments will need to mandatorily place all citizen-facing rules on their website. Officials will not be able to impose any rule not explicitly mentioned on the website clearly. This will bring transparency and simplify the understanding of regulations.

07 CHAPTER REGULATORY FORBEARANCE: AN EMERGENCY MEDICINE, NOT STAPLE DIET!

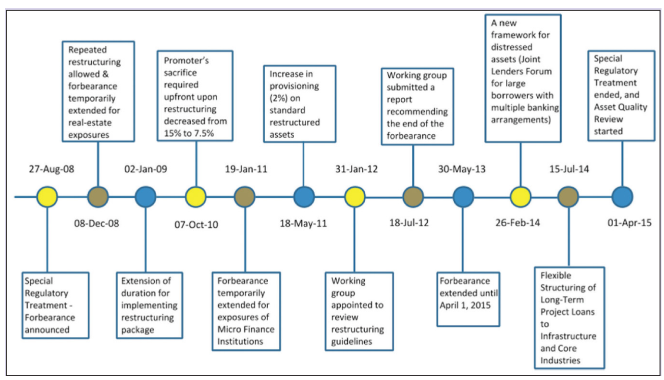
"Those who don't learn from history are condemned to repeat it". —George Santayana

About:

- The current regulatory forbearance on bank loans has been necessitated by the covid Pandemic
- To address the economic challenges posed by the Covid-19 pandemic, financial regulators across the world have adopted regulatory forbearance. India is no exception.
    - **Regulatory forbearance** can be defined as laxity in regulatory agencies' roles of supervision, oversight, and enforcement, which are mandated, by-laws.
- Emergency measures such as forbearance prevent spillover of the failures in the financial sector to the real sector, thereby avoiding a deepening of the crisis.
- However, caution must be exercised so that these emergency measures do not become regular norms (emergency medicine does not become a staple diet) because borrowers and banks can easily get addicted to such palliatives.
    - It may then lead to negative side effects which may not only be large but may also last for a while.
- Therefore, carefully examining and understanding the implications of previous forbearance episodes is relevant to guide future policy.
- In 2008, anticipating the global financial crisis, RBI introduced the policy of regulatory forbearance.
    - It relaxed the norms for restructuring stressed assets - downgrading the asset to non-performing status was no longer mandatory and required no additional provisioning.
- This chapter studies the impact of the 2008 forbearance policy on banks, firms, and the economy in general to glean important lessons for the current times.

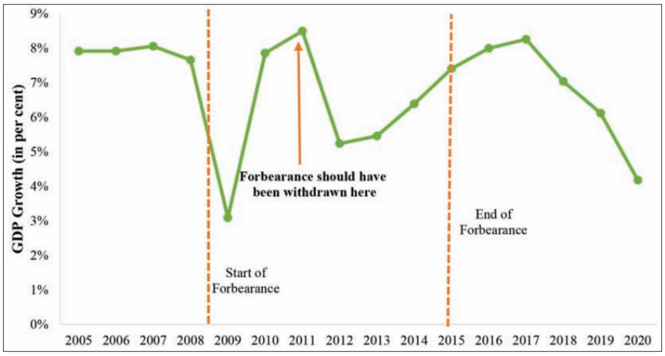
S.N.	Economic Rationale for Forbearance	
	Without Forbearance	**With Forbearance**
1.	If the project is viable, the bank would restructure the asset and downgrade it to a Non-Performing Asset (NPA) and provision for the same	If the project is viable, the bank would restructure the asset. As restructured assets do not require the same level of provisioning as NPAs, inadequate provisions are made.
2.	If the project is unviable, the bank would not restructure the loan and declare the asset as non-performing. Crucially, banks do not gain by restructuring unviable projects in this case. In such a scenario, Capital-starved banks are likely to continue lending to the risky borrower. With low capital, equity owners have little to lose from the fresh lending in the likely scenario where the borrower fails. However, the unlikely case of firm revival would result in a significant upside for them.	Forbearance further allows equity owners to restructure loans without any additional cost. Capital-starved banks now have an incentive to restructure even unviable projects to reduce provisioning and avoid the consequent hit on capital

Below is a timeline of announcements relating to the forbearance regime of 2008-2015:



The Original Sin: The Seven-Year Forbearance:

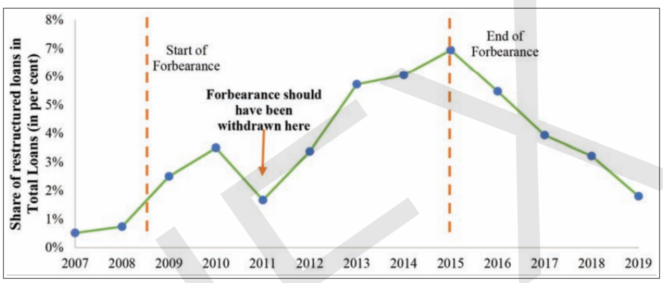
- **Short Term Effects of Forbearance Policy:**
    - GDP growth recovered from a low of 3.1% in FY2009 to 8.5% within two years.



Growth rate of Real GDP

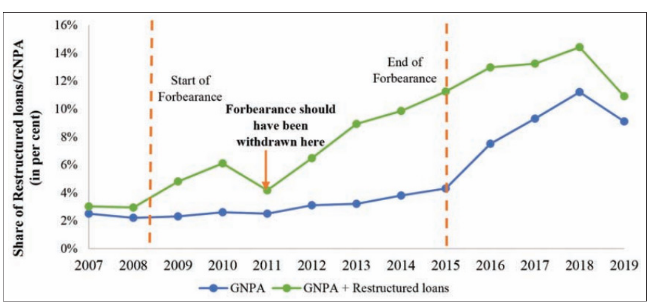
- There was a marked improvement in other economic indicators ranging from exports to the Index of Industrial Production (IIP).
- The growth in total revenue of listed firms and growth in bank credit, which had fallen significantly after the 2008 economic crisis, recovered quickly in 2011.

- However, the central bank decided to continue with the same.
- The forbearance continued for five more years till 2015, even when its withdrawal was recommended - a clear case of emergency medicine that was chosen to be made into a staple diet.



Higher Restructuring during Forbearance

- During the period of the global financial crisis (GFC), the policy worked well with banks selecting genuinely distressed.
  - Banks more likely to benefit from forbearance did not differ in their selection of restructuring choices when compared to a bank with a lower likelihood of utilizing forbearance.
- However, the propensity to restructure any given borrower, including unviable ones got significantly higher in the years after the crisis.



Gross Non-performing Assets and Restructured loans

- Once the banks got a signal about the continuation of forbearance till 2015 despite the economic recovery, several types of distortions crept in.
  - The proportions of loans restructured for both public and private banks increased significantly during this period.
    - The share of restructured loans increased from 0.74% in FY2008 to 6.94% in FY2015.
  - On the contrary, the reported gross NPAs of banks increased only modestly from 2.2% in FY2008 to 4.3% in FY2015.
    - It appears that the banks used the option of restructuring loans that were on the verge of defaulting without regard to the viability of such loans
  - The proportion of firms in default increased by 51% after their loan(s) got restructured compared to a marginal 6% increase in the pre-forbearance era.
- Forbearance thus helped banks to hide a lot of bad loans.
- The P. J. Nayak Committee (2014), constituted by RBI, highlighted in its report submitted in May 2014 the twin concerns stemming from the forbearance regime:
  - Ever-greening of loans by classifying NPAs as restructured assets and
  - The resultant undercapitalization of banks.
- The report had stated that the existing Tier-1 capital during that time (May 2014) was overstated because of the regulatory forbearance
  - Without forbearance, these assets at that time would have been categorized as NPAs.
  - Their restructuring would have been done in case of likely imminent default.
  - As a consequence, provisioning would have risen and tier-I capital would have fallen.
- The report had estimated that if regulatory forbearance were withdrawn immediately in May 2014 and a prudent 70% provision cover were provided for restructured assets, tier-1 capital of the public sector banks would be written down by INR 2.78 lakh crores during that time.
- Once the forbearance policy was discontinued in 2015, RBI conducted an Asset Quality Review to know the exact amount of bad loans present in the banking system.
  - As a result, banks' disclosed NPAs increased significantly from 2014-15 to 2015-16.
- Thus, the roots of the present banking crisis go back to the prolonged forbearance policies followed between 2008 and 2015.
- **India was a Late Resolver** where a prolonged policy of regulatory forbearance allowed banks to delay recognition of actual NPAs
  - This delay in taking actions to recognize and resolve bad loans may have caused the NPAs to culminate many years after the crisis.

Adverse Impact of Forbearance on Bank Performance and Lending:

- **Undercapitalization of Banks**
  - Capital provides a cushion that helps banks navigate through times of abnormal depositor withdrawals and increased losses on the lending portfolio.
  - A policy of prolonged forbearance has the effect of overstating the actual capital and creating a false sense of security.
  - This leads to several implications –
    - Since equity capital is privately expensive to the owners of banks, the banks may use the forbearance window to withdraw their capital.
    - The bank can keep reporting healthy capital figures while the true numbers, without forbearance, might be lower than the regulatory threshold.
    - If forbearance is continued for an extended period, the bank may consider the capital above the regulatory minimum as "excess" and start repaying capital to the incumbent owners as dividends.
    - Eventually, when forbearance gets withdrawn, either depositors or the taxpayers are called upon to foot the bill.
  - **The Indian banking sector had to bear** these implications during forbearance.
  - Banks that benefited more from forbearance increased their dividend payments to incumbent management, including the government.
    - Banks with a high share of restructured loans raised less fresh capital than banks with a low share of restructured loans.
- **Lending to Zombie Firms**
  - **Zombies or Unproductive Firms** are typically identified using the **interest coverage ratio (ICOR)**- the ratio of a firm's profit after tax to its total interest expense.
  - Firms with an ICOR <1 are unable to meet their interest obligations from their income and are categorized as zombies.
  - With less of their own money at stake, **undercapitalized banks reporting healthy capital figures during forbearance** found risky lending and shady lending practices, such as those based on high upfront fees, attractive.
  - Thus, regulatory forbearance led to an increase in lending to low-solvency and low-liquidity firms.
- **Ever-greening of Loans**
  - **Evergreening is a ploy to mask loan default** by giving new loans to help delinquent borrowers repay or pay interest on old loans.
  - Such transactions go undetected as banks are not required to disclose them, unlike restructurings that warrant disclosures.
  - Thus, to protect their already depleted capital, **undercapitalized banks reporting healthy capital figures during forbearance used evergreening** for lending to firms related to zombie firms with the hope of their existing loans getting repaid.
  - Hence, forbearance resulted in increased lending to firms with poor fundamentals and higher lending to inefficient projects.
    - It led to a lesser proportion of new loans to be used for capital asset creation such as buildings, plants, machinery, etc.
    - A larger part of the credit seems to have been used to keep dead loans alive by ever-greening.
- **The weakening of Corporate Governance in Borrowers benefitting from forbearance**
  - Getting a loan restructured involves negotiations with the bankers who have discretion in selecting cases for restructuring.
  - In an era of relaxed provisioning norms during forbearance, firm managers formally or informally connected with bankers could persuade them to restructure loans, plausibly even unviable ones.
  - This ability made the incumbent management's influence stronger within the firm.
  - It became difficult for the firm's board to overthrow such managers even if they were otherwise inefficient.
  - Thus, this increased influence of the incumbent management during the forbearance regime resulted in the weakening of the firms' governance which, in turn, had detrimental consequences in the longer run.
- **Deterioration in the Quality of the Board**
  - The institution of independent directors on the board is a robust mechanism to maintain checks and balances at the board level.
  - Given that promoters are the controlling shareholders in most Indian firms, the non-promoter directors are specifically required to uphold the interests of minority shareholders.
  - The percentage of non-promoters on the board decreased significantly after restructuring during the forbearance regime.
  - Hence, boards became increasingly dominated by firms' promoters during forbearance implying a weakening of governance during this period.
- **Inefficient allocation of capital by borrowers that benefited from forbearance**
  - Aided by poor governance, beneficiary firms under the forbearance regime also seem to have misallocated capital in unviable projects.
  - The total Capex projects increased only modestly for firms restructured both during the forbearance regime and before.

- However, there was a much higher rise in the number, proportion, and rupee value of stalled projects for restructured firms in the forbearance window.
  - Total stalled projects increased by 40% (30%) during forbearance, while the same witnessed a decline of 12% pre-forbearance.
- Thus, it is believed that in the pre-forbearance period, firms likely re-initiated stalled projects when injected credit through restructuring
  - Whereas firms in the forbearance window witnessed additional stalling, indicating a possible misuse of increased credit supply.

- Mis-appropriation of resources in borrowers that benefited from forbearance
  - Another likely consequence of strong management influence and declining governance is the increase in private benefits being redirected to the firms' management.
  - In the Indian context, related party transactions (RPTs) are often utilized to coverup the expropriation of firm resources.
    - Incumbent management can force the firm to engage in related party transactions with entities connected to key managerial personnel.
  - During the forbearance regime, related party transactions to key personnel increased by around 34% among firms whose loans were restructured.
    - A huge jump in overall management compensation and directors' sitting fees was witnessed.
  - Hence, the increased, lax restructuring seems to have resulted in the misappropriation of firm resources at the cost of minority shareholders.
- **Deterioration in performance of borrowers benefiting from forbearance**
  - As a consequence of the weakened governance, the impacted firms' performance deteriorated.
  - There was a significant increase in leverage (15.7%), measured as the ratio of debt to equity, accompanied by a 27.2% decline in the ICOR for firms restructured during the forbearance regime.
  - Thus, firms benefitting from restructuring during the forbearance regime turned loss-making.
    - Their liquidity (measured by quick ratio - the ratio of its current assets to its current liabilities) and profitability witnessed a sharp decline in the forbearance era.
- **Increased defaults by borrowers benefitting from forbearance**
  - After the deterioration in their fundamentals, restructured firms in the forbearance window also witnessed a decrease in their credit ratings.
  - The forbearance regime also accompanied an increase in defaults by restructured firms when compared to a decrease in the same in the pre-forbearance era.
  - The prolonged forbearance policy meant to address grievances of crisis-hit borrowers led to unintended negative consequences for the firms in the long run.
  - On a macroeconomic front, under the forbearance window, a higher share of restructured firms within an industry was also associated with a decrease in the entry of new firms in the industry.

Bank Clean-Up Without Adequate Capitalization:

- Finally, after continuing forbearance for seven years, the Reserve Bank of India (RBI) decided to bite the bullet and withdrew regulatory forbearance starting from April 2015.
- The RBI also decided to conduct a detailed Asset Quality Review (AQR) to know the true status of banks' NPAs.
- **Reduce Information Assymetry:** The AQR was expected to lead to a reduction in information asymmetry.
  - **Raise more private capital:** As the country was not undergoing an economic crisis, RBI believed that cleaner bank balance sheets would help banks to raise more private capital on their own from markets.
  - Thus, it would improve the quality of financial intermediation.
- However, firms in distress had no incentive to raise equity voluntarily as managers – who know more about the firm's fundamentals than investors – feared dilution of the value of equity.
  - Also, there was neither a forced recapitalization of the banks nor was an explicit capital backstop provided for.
    - **A backstop** is a financial arrangement that creates a secondary source of funds in case the primary source is not enough to meet current needs.
    - It can also be thought of as an insurance policy that covers the inadequacy of a source of funds.
- Thus, the AQR exacerbated the problem as it neither mandated capital raising by banks nor provided a capital backstop even though it was certain that banks' capital would be adversely impacted following the AQR.

The inadequate clean-up of bank balance sheets:

- Most of the non-performing loans were lent and restructured during the forbearance phase.
- The AQR exercise significantly under-estimated the full extent of NPAs as well as the resultant capital infusion that was required to ensure that the bank balance sheets indeed become healthy.
- AQR did identify some bad loans lent through restructuring activities but the identified NPAs were small in comparison to the loans restructured by the banks.
- AQR was mostly restricted to targeting bad lending through restructuring, rather than identifying subtle ever-greening activities.

- The AQR exercise thus failed to recognize subtle ever-greening and thus may have been unable to curb distortionary lending. **Ex- evergreening episodes** at Yes Bank and Lakshmi Vilas Bank.

Under-estimation of required bank capital:

- The actual capital required by public sector banks significantly exceeded the amount that the RBI seems to have estimated before the AQR.
- **Mission Indradhanush:** The government had to infuse INR 2.5 lakh crores in the public sector banks under Mission Indradhanush.
- Banks, both private and public, could not recapitalize themselves adequately after the clean-up and consequently were left significantly undercapitalized.

Adverse impact on lending:

- As the banks were unable to raise adequate fresh capital after the clean-up, their lending reduced.
  - There was a sharp decline in the lending post the increased NPAs that resulted from the AQR.
- However, the affected banks increased their exposure to risky borrowers due as explained above in the Table.
- Thus, in an already stressed banking sector, the second wave of under-capitalization caused by the AQR created perverse incentives to lend even more to the unproductive zombie borrowers.

Decline in Firm's Capital Investment:

- Banks' tightening of credit supply negatively impacts healthy borrowers as it forces firms to cut down on their investments and capital expenditures.
  - Thus, the likelihood of stalling of ongoing projects increases
- It was observed that after AQR, there was a significant increase in the value of stalled projects for firms exposed to banks affected by the AQR when compared to firms that engaged with unaffected banks.
- Thus, these firms became financially constrained and reduced their capital expenditures, leading to ongoing projects being stalled.
- In sum, the clean-up of bank balance sheets undertaken under the AQR exacerbated the problems created by the prolonged period of forbearance.
- In terms of lending, being undercapitalized, banks reduced lending to good borrowers while increasing lending to zombie borrowers.

Implications for the Current Forbearance Regime:

The extensive, careful analysis of the regulatory forbearance and the resulting banking crisis offers key learnings for the current regime of regulatory forbearance following the Covid crisis.

- Forbearance represents emergency medicine that should be discontinued at the first opportunity when the economy exhibits recovery, not a staple diet that gets continued for years.
- Therefore, policymakers should lay out thresholds of economic recovery which such measures will be withdrawn and inform banks in advance of the same.
- A clean-up of bank balance sheets is necessary immediately when the forbearance is discontinued.
  - **Check all types of Evergreening possible:** The asset quality review must account for all the creative ways in which banks can evergreen their loans.
  - **Early Detection:** The banking regulator needs to be more equipped in the early detection of fault lines and must expand the toolkit of ex-ante remedial measures.
  - **Restriction on Zombie Lending:** Also, forbearance should be accompanied by restrictions on zombie lending to ensure a healthy borrowing culture.
    - **Sound governance** is a key metric to ensure that banks do not engage in distortionary lending post capital infusion.
    - **Penalties:** The regulator may consider penalties on bank auditors if ever-greening is discovered as part of the toolkit of ex-ante measures.
    - This would thereby create incentives for the auditor to conduct the financial oversight more diligently
- **Mandatory Capital Infusion:** A clean-up unaccompanied by mandatory capital infusion exacerbates bad lending practices.
  - Expecting banks to get recapitalized on their own on account of economic recovery may not be prudent.
  - Therefore, a clean-up exercise should be accompanied by mandatory recapitalization based on a thorough evaluation of the capital requirements post an asset quality review.
- **The legal infrastructure** for the recovery of loans needs to be strengthened de facto.
  - **The Insolvency and Bankruptcy Code (IBC)** has provided the de jure powers to creditors to impose penalties on defaulters.
  - However, the judicial infrastructure for the implementation of IBC – comprised of Debt recovery tribunals, National Company Law Tribunals, and the appellate tribunals must be strengthened substantially.

08
CHAPTER

INNOVATION: TRENDING UP BUT NEEDS THRUST, FROM THE PRIVATE SECTOR

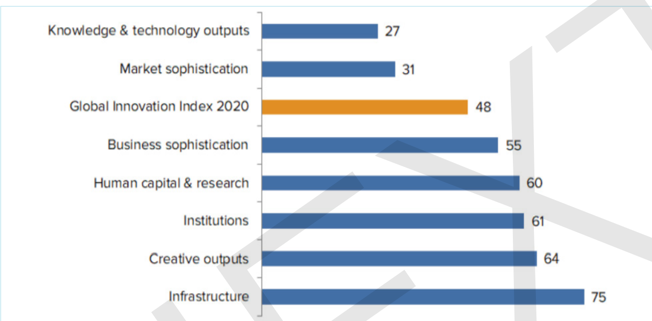
"If a rare opportunity occurs, while it lasts, let a man do that which is rarely to be accomplished (but for such an opportunity)". —Thirukural, (Chapter 49, verse 489)

About:

- India has improved its rank on the Global Innovation Index (GII) from 81 in 2005 to 48 in 2020 and has entered the top 50 countries by doing so.
- The Survey analyses that for India to emerge as a global leader, innovation needs a major thrust, especially from the business sector.

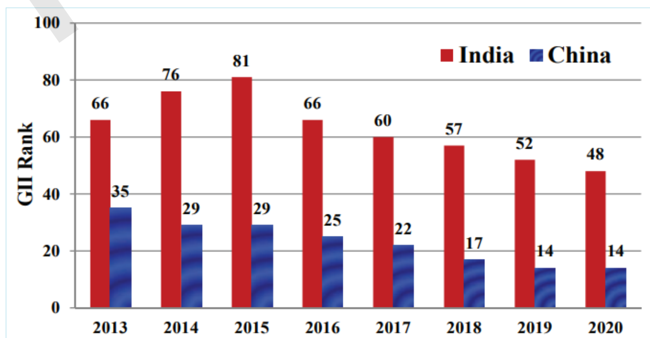
India and its Innovation Performance:

- **Global Innovation Index (GII) 2020 rank:** India ranks 48 among 131 countries on overall innovation performance.
- India ranked well in the region and in its income category, ranking first in GII rankings in Central and South Asia.



India's performance on pillars of the Global Innovation Index 2020 (rank)

- **Population and Innovation:** India has performed above expectations given its level of development, but it cannot be attributed to its population as there is no clear pattern of correlation between innovation performance and population.
- **GDP and Innovation:** India underperforms in innovation with respect to the size of its GDP, which the Economic Survey highlights as significant and warns against complacency.
- **GDP per capita and innovation:** There is a positive correlation between GDP per capita and past innovation. India has performed below expectation for innovation performance in terms of the GDP per capita in recent years.
- **Comparison with top ten economies:** India ranks second lowest after Brazil on the overall GII. China and UK rank much higher than expected for their level of development.
  - **Knowledge and Technology Outputs:** India ranks highest amongst the top ten economies (GDP current US$) in knowledge diffusion while it ranks lowest on the knowledge creation among the top ten economies.
  - **Market sophistication:** India performs above expectation for its level of development on the market sophistication.
  - **Infrastructure:** India performs in line with its level of development in infrastructure and ICT but underperforms in ecological sustainability.
  - **Business Sophistication:** Amongst the top ten economies, India ranks lowest on the business sophistication.
  - **Institutions:** India meets expectation for its level of development on the institutions pillar of GII.
  - **Creative Outputs:** India performs in line with its level of development in terms of creative outputs, performing above expectation on online creativity and creative goods and services but is still much behind China.
  - **Human Capital and Research:** India performs in line with its level of development and performs above expectations in tertiary education, but ranks the lowest among the top ten economies.



Comparing India and China on GII

Research and Development Expenditure in India:

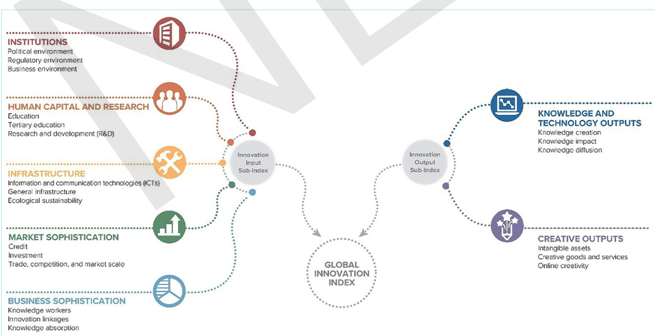
- India's gross domestic expenditure on R&D (GERD) as a percentage of GDP aligns with its level of development but it can be improved further.
- Business sector contribution to BERD in USA, China, Japan and Germany is much higher than expected for their level of development while in case of India it is in line with its level of development.
- **Business vs. Government contribution:** There is positive correlation between the level of development and GERD as per cent of GDP and business sectors' participation while government sector's participation in GERD is negatively correlated with development.

- The Survey highlights that in India, government contributes 56% to GERD whereas this is less than 20% in case of top ten economies.
- The overall GERD in case of India is much smaller compared to the top economies on account of lesser business sector contribution (about 37%) vis-à-vis the business sector GERD contribution in top economies (about 68%).

- **Human resource in R&D:** India performs below expectation for its level of development in terms of number of R&D personnel and researchers when compared to Japan, France and Germany.
  - The Survey highlights that the government's contribution to R&D personnel and manpower is the highest as compared to top ten economies, whereas India's business sector contribution is much less for the same.
- **R&D Tax framework:** India has a generous R&D tax incentive framework which supports innovation but this has not been fully tapped by the private sector.

Patents and Trademarks Performance:

- **Rising number of Patents:** The total number of patents filed in India has risen steeply since 1999 but on account of the rising number of applications by non-resident Indians, whereas in case of top ten economies, residents have a higher share.
- **NRIs and Innovation:** The Survey highlights that rising out-migration may not necessarily adversely affect India's innovation aspirations because of its potential for return of higher-skilled workforce in future.
- **Rising number of Trademarks:** The number of trademarks has increased steeply since 1999, but unlike in case of patents, the rise is more due to residents applying for those, similar to that in top ten economies (except Canada), which is a positive advancement for innovation in India.



Framework of the Global Innovation Index

Finance and Innovation:

- The Survey highlights a study showing industries that are more dependent on external finance, and are more high-tech intensive, exhibit disproportionally higher innovation in countries with well-developed equity markets.
  - Conversely, developed credit markets appear to discourage innovation in industries that are more dependent on external finance and are more high-tech intensive.
  - **India** ranks much below expectation for its level of equity market development, indicating that innovation in India needs to be more high-tech driven.

Innovation input-output conversion:

- The Survey highlights that India is able to effectively translate investments in innovation inputs to produce a higher level of innovation outputs, implying higher gain for India in innovation investments, especially investments in business sophistication and institutions.
  - This would lead to better creative outputs as well as better knowledge and technology outputs.

R&D Roadmap of China

- In January 2006, China initiated a 15-year "Medium to Long Term Plan (MLP) for the Development of Science and Technology (S&T)".
- MLP called for China to become an "innovation-oriented society" by the year 2020, and a world leader in S&T by 2050.
- It aimed to increase Gross domestic expenditure on R&D (GERD) as a percentage of GDP from 1.35 per cent in 2005 to 2.5 per cent by 2020.

Way Ahead:

- **GERD:** In order to bank upon innovation, India needs to ramp up GERD from 0.7% of GDP at present to at least match the ones in top ten economies and a major thrust is needed from the business sector in this regard.
- **Business and institutions:** India should focus on improving its performance on institutions and business sophistication since higher performance on these dimensions seem to suggest higher innovation outputs performance.
- **Enabling environment for NRIs:** Making the most of the potential of NRIs and their impact on innovation would require an enabling environment that facilitates their re-entry into the Indian job-market and high-tech research opportunities.
- **Residents' share:** The Survey highlights that improving resident share in patents should be a matter of priority to make advancements in innovation.
- **R&D centre stage:** Further, India has world-class potential both as a global R&D centre targeting global markets and as a regional R&D hub for its local market and markets in emerging countries.
- **Boost to Start Up India Campaign:** Encouraging entrepreneurship is important for fuelling growth, innovation and wealth creation in India.

09 CHAPTER

JAY HO: AYUSHMAN BHARAT'S JAN AROGYA YOJANA (JAY) AND HEALTH OUTCOMES

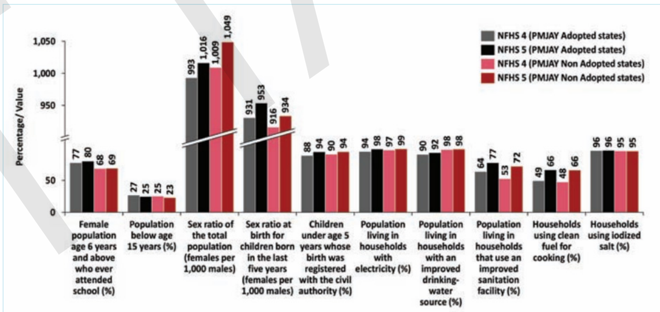
Of all the forms of inequality, injustice in healthcare is the most shocking and most inhumane. —Martin Luther King Jr.

About:

- This chapter demonstrates the positive impacts on health outcomes post-launch of Pradhan Mantri Jan Arogya Yojana (PM-JAY) in 2018 that aims to provide healthcare access to the most vulnerable sections.
- **Horizon Problem:** The provision of public goods like healthcare can affect the quality of life of vulnerable sections in society. Yet governments may suffer from "horizon problem" in a democracy where the time horizon over which the benefits of public goods reach the electorate in longer electoral cycles.
- **Beneficiaries of PM-JAY** included approximately 50 crore individuals across 10.74 crores of poor and vulnerable families, which form the bottom 40% of the Indian population.
- **The households** were included based on the deprivation and occupational criteria from the Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas respectively.
- **Insurance:** The scheme provides for the healthcare of up to INR 5 lakh per family per year on a family floater basis, which means that it can be used by one or all members of the family.

Impact of PM-JAY on health outcomes:

- PMJAY is being used significantly for high frequency and low-cost care consisting of the general utilization of healthcare services.
- General medicine has been the overwhelmingly major clinical specialty used since 2018 with its share continuously growing. It is followed by general surgery, obstetrics, and gynecology.
- General care-seeking as seen in the PM-JAY claims exhibited a V-shaped recovery after falling during the lockdown and has reached the pre-Covid-19 levels in December 2020.
- In this chapter difference-in-difference analysis has been done, comparing states that implemented PMJAY versus those that did not, in two parts:
    - For West Bengal as the state that did not implement PM-JAY and its comparison with neighboring states that implemented PM-JAY i.e. Bihar, Sikkim, and Assam
    - For all states that did not implement PM-JAY vis-à-vis all states that did.
- **Enhanced health insurance coverage:**
    - Across all the states, the proportion of households with health insurance increased by 54% for the states that implemented PMJAY while falling by 10% in states that did not.
    - The proportion of households that had health insurance increased in Bihar, Assam, and Sikkim by 89% in the last 5 years while it decreased by 12% over the same period in West Bengal.
- **Decline in Infant Mortality Rate:** by 12% for states that did not adopt PM-JAY and by 20% for the states that adopted it.
- **Decline in Under-5 Mortality Rate:** by 14% for states that did not adopt PM-JAY and by 19% for the states that adopted it.
- **Improved health outcomes** including maternal & child health, access to family planning, awareness about diseases outperforming non-PMJAY States.



Population and Household Profile: All States

PM-JAY and COVID-19:

- Dialysis is a common procedure availed under PM-JAY. Its use did not diminish at the onset of Covid-19. This highlights the users' reliance on PMJAY for the life-saving dialysis procedure.
- Number of dialysis claims has only been growing which hints that the National Dialysis Mission could be merged with PM-JAY.
- While access to medical services was classified as essential services during the lockdown, care-seeking exhibited a V-shaped behavior during the lockdown and unlock phases.

Way Forward:

- Relative to states that did not implement PM-JAY, states that adopted it experienced greater penetration of health insurance, experienced a reduction in infant and child mortality rates, realized improved access and utilization of family planning services, and greater awareness about HIV/AIDS.
- While some of these effects stemmed directly from enhanced care enabled by insurance coverage, others represent spill over effects due to the same.

10
CHAPTER

THE BARE NECESSITIES

**"Look for the bare necessities,
The simple bare necessities,
Forget about your worries and your strife,
I mean the bare necessities!"**

—The Jungle Book

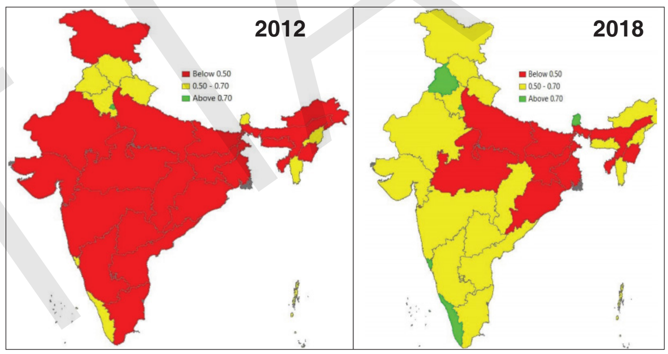
About:

- Access to "the bare necessities" such as housing, water, sanitation, electricity and clean cooking fuel are a sine qua non to live a decent life.
- This chapter examines the progress made in providing access to "the bare necessities" by constructing a Bare Necessities Index (BNI) at the rural, urban and all India level.
- **BNI summarises 26 indicators** on five dimensions viz. water, sanitation, housing, micro-environment, and other facilities.
- Compared to 2012, access to "the bare necessities" has improved across all States in the country in 2018.
- **Access to bare necessities is the highest in the States such as Kerala, Punjab, Haryana and Gujarat** while it is the lowest in Odisha, Jharkhand, West Bengal and Tripura.
- Inter State disparities in the access to "the bare necessities" have declined in 2018 when compared to 2012 across rural and urban areas.
- Improved access to the 'bare necessities' has led to improvements in health indicators such as Infant Mortality Rate and Under-5 Mortality Rate.
- It also correlates with future improvements in education indicators.

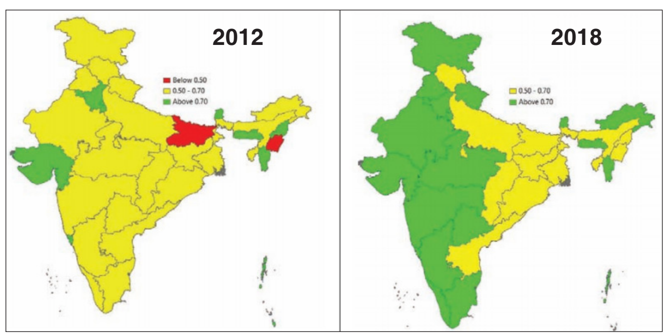
Bare Necessities Index (BNI):

- The "basic needs" approach to economic development focuses on the minimum specified quantities of basic necessities such as food, clothing, shelter, water and sanitation that are necessary to prevent ill health, and undernourishment.
- The Bare Necessities Index (BNI) is an attempt to quantify this approach to economic development using data from the National Statistical Office (NSO).
- The index is constructed at two points of time i.e. 2012 and 2018, using 26 indicators on 5 dimensions.
- A higher value indicates better access to bare necessities in a State. The three colours, green, yellow and red, used in the maps for the same.
    - Green means High (0.7 or above):
    - Yellow means Medium (0.5 to 0.7)
    - Red means Low (below than 0.5)

- Access to bare necessities in 2018 is the highest in the States such as Kerala, Punjab, Haryana, Gujarat, Uttrakhand, Delhi, Goa, Mizoram and Sikkim while it is the lowest in Odisha, Jharkhand, West Bengal and Tripura.
- In rural India, the highest access to bare necessities in 2018 is recorded in Punjab, Kerala, Sikkim, Goa and Delhi, while the lowest in Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, West Bengal, Odisha, Assam, Manipur and Tripura.



Improvement in Bare Necessities in Rural India from 2012-18



Improvement in Bare Necessities in Urban India from 2012-18

Other Indices/Sub Index:

- **Drinking Water Accessibility Index:** The sub-index for access to drinking water, drinking water accessibility index, is composed of sub-dimensions viz., the principal source of drinking water, distance from source of water, nature of access, and method of taking out water.
- **Sanitation Index:** Indicators used in the sub-index are percentage of households by access to latrine for exclusive use, the type of latrine viz., piped sewer system, septic tank, twin leach pit, single pit.

- **Housing Index:** The housing index measures not only the structure of house (in terms of Pucca or Katcha), but also the quality of house in terms of type of dwelling unit (independent or not) and condition of structure (Good or not).
- **Micro Environment Index:** The micro-environment index measures the percentage of households who are living in a dwelling unit with access to drainage (indicated in terms of access to drainage and quality of drainage in terms of other than Katcha drainage), without problems of flies/mosquitoes (indicated by other than severe), and efforts made by local bodies/State government to tackle problem of flies/mosquitoes.
- **Other Facilities Index:** 'Other facilities' index captures the availability of kitchen, kitchen with a water tap, good ventilation in house, access to bathroom, attached bathroom, electricity use, the types of wiring used instead of temporary electric wiring, and type of fuel used for cooking (LPG or others).

Way Forward:

- Using the composite index of bare necessities, this chapter summarizes the progress made in providing access to bare necessities for ensuring a healthy living.
- It was found that compared to 2012, access to "the bare necessities" has improved across all States in country in 2018.
- While improvements in access to bare necessities are evident, the disparities in access to bare necessities continues to exist between rural-urban, among income groups and also across States.
- **Government schemes**, such as the Jal Jeevan Mission, SBM-G, PMAY-G, may design appropriate strategy to address these gaps to enable India achieve the SDG goals of reducing poverty, improving access to drinking water, sanitation and housing by 2030.
- **There should be effective targeting of the needier population** be they in urban or rural areas or across states. As civic amenities in urban areas are also provided by the local self-governments, there must be effective convergence in scheme implementation at the Centre-State and local levels.
- A BNI based on large annual household survey data can be constructed using suitable indicators and methodology at district level for all/targeted districts to assess the progress on access to bare necessities.

Government Schemes on Bare Necessities

Scheme	Objective	Targets and achievements
Swachh Bharat Mission (SBM)-Rural and Urban	**SBM(R):** To attain Open Defecation Free (ODF) India by 02/10/2019 by providing access to toilet facilities to all rural households. **SBM(U):** 100% ODF Status and 100% scientific processing of the Municipal Solid Waste (MSW) being generated in the country.	More than 10 crore toilets built across rural India. 4,327 Urban Local Bodies (ULBs) have been declared ODF so far. Mission is now focusing on holistic sanitation through its ODF+ and ODF++ protocols.
Pradhan Mantri Awaas Yojana (PMAY)	Housing for all in urban and rural areas by 2022.	109.2L houses have been sanctioned out of which 70.4L houses have been grounded for construction of which 41.3L have been built. Approx. 1.94 crore rural houses have been completed, out of which 1.22 Cr. houses have been constructed under revamped scheme of PMAY-G and 0.72 Cr under erstwhile Indira Awaas Yojana scheme.
NRDWP, now Jal Jeevan Mission (JJM)	To provide safe and adequate water for drinking, cooking and other domestic needs to every rural person on a sustainable basis. Goal of JJM is to provide functional tap water connection (FTWC) every rural household by 2024.	So far about 3.2 crore of rural households have been provided with FTWC since the launch of the Mission.
Sahaj Bijli Har Ghar Yojana – Saubhagya	To achieve universal household electrification by providing electricity connections to all willing un-electrified households in rural areas and all willing poor households in urban areas in the country by 2019.	All States have declared electrification of all households on Saubhagya portal, except 18,734 households in Left Wing Extremists (LWE) affected areas of Chhattisgarh.
Pradhan Mantri Ujjwala Yojana (PMUY)	To provide clean cooking fuel to poor households with a target to provide 8 crore deposit free LPG connection. This connection is provided in the name of an adult woman member of a poor family and the beneficiary has an option to avail connection with 14.2 kg or 5 kg cylinder.	Under PMUY, a target to provide 8 crore new LPG connections has been achieved in September, 2019, 7 months in advance of the target date of 31st March, 2020.