

INDIA FOUNDATION JOURNAL



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India Foundation is an independent research centre focussed on the issues, challenges, and opportunities of the Indian polity. The Foundation believes in understanding contemporary India and its global context through the civilizational lens of a society on the forward move. Based on the principles of independence, objectivity and academic rigour, the Foundation aims at increasing awareness and advocating its views on issues of both national and international importance.

With a team of dedicated professionals based at its office in New Delhi, the Foundation works with partners and associates both in India and overseas to further its stated objectives.

About India Foundation Journal

The India Foundation Journal is led by an Editorial Board of eminent scholars and leaders from various spheres of Indian public life. The bi-monthly journal covers a wide range of issues pertinent to the national interest, mainly focusing on international relations, national security, legal and constitutional issues and other issues of social, religious and political significance. The journal seeks articles from scholars with the intent of creating a significant body of knowledge with a nationalist perspective and establish a recognised forum for debates involving academicians and policymakers.

Bharat on the Move: A Decade of Change and Progress

Dhruv C Katoch*

Has Bharat changed in the last ten years? Many would view the question as rhetorical, as Bharat has not only changed in a myriad of ways over the last decade, but the extent of change has been colossal. Let us examine the changes that have taken place in a few select sectors.

Over the last decade, Bharat's economy has seen tremendous growth, despite the COVID-19 pandemic, which adversely impacted Bharat and the world during the two-year period from 2019 to 2021. According to the World GDP Ranking 2024 list, Bharat, with a GDP of USD 4.1 trillion, is now the fifth largest economy in the world, up from the tenth position in 2014, where Bharat's GDP stood at USD 2.04 trillion. The inflation rate was also kept in check for the 2014-2024 decade, with inflation below 5 percent for most of the period. This stood in sharp contrast to the inflation levels during the 2004-2014 period, where inflation hovered for the most part near the 10 percent level. The per capita income also saw a significant rise from USD 1560 in 2014 to USD 2847 in 2024, an increase of 82.5 percent. This, in conjunction with low inflation rates, has substantially raised the standard of living of a vast segment of the population.

Defence preparedness is yet another success story. While Bharat is still heavily dependent on imports for a variety of upper-end defence equipment and is at present the largest arms

importer in the world, concerted efforts have been made over the last decade to increase indigenous defence production and reduce dependence on imports through initiatives like the "Make in India" campaign and reforms in defence procurement policies. There is also a renewed focus on defence exports, which have touched USD 2.63 billion in the financial year 2023-2024. This represents a 32 percent increase over the previous year and is set to further increase in the coming years. The private sector is also contributing to Bharat's growth story in the defence sector, and in conjunction with the Defence Public Sector Undertakings (DPSUs), is playing a crucial role in modernising and strengthening India's defence capabilities. The last decade has also seen increased focus on the creation of defence infrastructure on India's Northern and Eastern borders, with a large number of projects being completed by the Border Roads Organisation (BRO). Among these are the Sela Tunnel, constructed at an altitude of 13,000 feet; the Darbuk-Shyok-DBO Road, an all-weather strategic road in eastern Ladakh right up to the border; and the construction of the Zojila Tunnel at an altitude of 11,500 feet, which is part of the broader effort to improve connectivity to the border and correct the infrastructure imbalance with China.

Bharat's foreign policy has also become more assertive, with a heightened focus on the country's national interest, as seen by its stance on the

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Ukraine war, the Hamas-Israeli conflict, and its engagement in strategic partnerships with various countries, including the United States, Japan, Australia, and ASEAN. These partnerships are aimed at enhancing Bharat's strategic and economic interests and promoting stability in the region. This assertiveness is also seen in Bharat's response to cross-border terrorism emanating from Pakistan and also to Chinese aggressive behaviour in Eastern Ladakh and along the McMahon Line. A feature of Bharat's nuanced change in its foreign policy is the role it seeks for itself on the global stage. This includes seeking membership in international forums such as the United Nations Security Council and actively participating in global initiatives on climate change, peacekeeping, and other issues. Another visible change in foreign policy is Bharat's engagement with its diaspora, which it views as a strategic asset, contributing to economic growth, cultural exchange, and fostering closer ties with countries around the world. This has contributed greatly to India's soft power and enhanced its image in the world, where Bharat is increasingly being viewed as the voice of the Global South.

Significant progress in the last decade has also been made in reforming the education sector, imparting skills to the population, digitalisation, focusing on upper-end technology, food and energy security, and also in many other fields. But perhaps

the most profound change that has occurred is a mindset change that has imbued a new-found confidence and spirit among all sections and strata of society. This self-view of increasingly large segments of the population, as well as of their role in society and in nation-building, is reflected in a burgeoning start-up ecosystem, fuelled by a growing entrepreneurial spirit, supportive government policies, and increased venture capital investment. Young Bharatiyas are increasingly willing to take risks, innovate, and pursue their entrepreneurial dreams. There is a growing realisation, especially among the youth, that while the role of the government as a facilitator is essential for their economic progress and well being, it is their effort and struggle that will ultimately bear fruit. There is also an attitudinal change, where the people of Bharat are becoming increasingly conscious of their culture and heritage and are now proudly attached to their roots. Perhaps this is the reason why the construction of the Ram Temple at Ayodhya was so eagerly awaited, and why its inauguration satisfied a long-felt yearning and need. It was indeed a moment of spiritual awakening for the nation.

Bharat is today on the march, walking confidently on its unstoppable path to progress. This is perhaps the greatest achievement of the decade under the Prime Ministership of Shri Narendra Modi.



Economic Reforms Since 2014

Gaurie Dwivedi*

Wealth, the lamp unfailing, speeds to every land, Dispersing darkness at its lord's command." – Thirukural, Chapter 76, verse 753

For a country like Bharat, inclusive economic growth has been a significant part of its conscious. It is an indispensable part of the value system as enunciated in the four purusharth – dharm, arth, kaam and moksh. Arth is the driver of all activities in the country, and when informed to all sections of the society, has the ability to transform the developmental outlook for it as well. This value system enabled Bharat to attain the second largest share (over 25%) in the global GDP for over 2,000 years¹.

Post-independence, however, this agenda of robust and inclusive economic growth with central importance of arth, remained inconsistent. During the first two decades of independence, there have been wide variations in India's growth rate with high frequency of negative growth rates². This trend reflected in India's poverty rates as well as the percentage of people in poverty increased from 47% in 1951 to 56% in 1974³. Further, in 1969, major banks were nationalised with the objective to organise and improve efficiency of the banking system. While it helped in the expansion of banking services, lack of professionalism, high SLR and CRR rates combined with increasing Non-Performing Assets affected the banking health of the country.

The reforms of 1991 followed by structural changes to improve the economic health of country have been characterised with high economic

growth rate, poverty reduction and significant improvement in the banking health. These structural changes helped India sail through the challenges posed by the Global Financial Crisis of 2008. However, the 2004-2014 era was characterised by high inflation rates, low fiscal discipline and increased revenue expenditures.

Starting 2014, a series of structural reforms have aided the country towards achieving its goal of economic prosperity for all. These reforms have been aligned with the broader objectives clearly articulated by the Govt. of India. It includes establishing \$5 trillion economy by 2025 and a \$7 trillion economy by 2030. The recently announced Viksit Bharat Sankalp by 2047 is an aim to present a holistic vision towards economic growth. The current review analyses the major economic reforms undertaken by the Govt. of India during the past decade under three broad themes, namely Macroeconomic Reforms, Banking Reforms and reforms towards Ease of Doing Business.

Macroeconomic Reforms

In 2014, the newly formed Modi government worked towards a stable macroeconomic policy. The purpose was to make the Indian economy resilient to external shocks post the Global Financial Crisis in 2008. This required effort towards reducing inflation, addressing jobless growth, enabling fiscal discipline and increasing forex

*Gaurie Dwivedi is a senior journalist and author.

reserves. One of the most prominent reforms is the make in India program.

Make in India

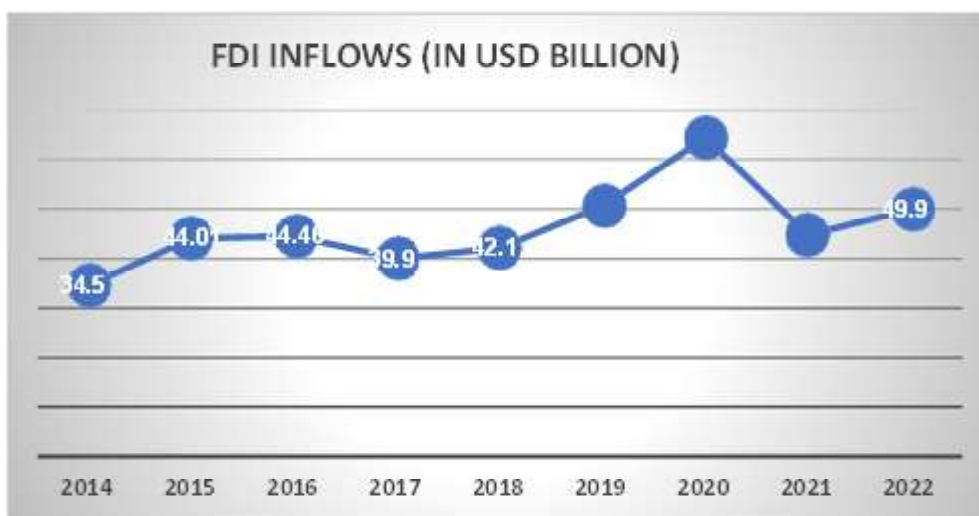
The policy is aimed to transform India into a global manufacturing hub. The purpose was to boost investment, foster innovation, enhance skill development, promote employment generation and build a manufacturing ecosystem in the country.

The Make in India initiative has led to a

consistent increase in the net Foreign Direct Investment (FDI) inflows. This is evident in the *graph 1* given below.

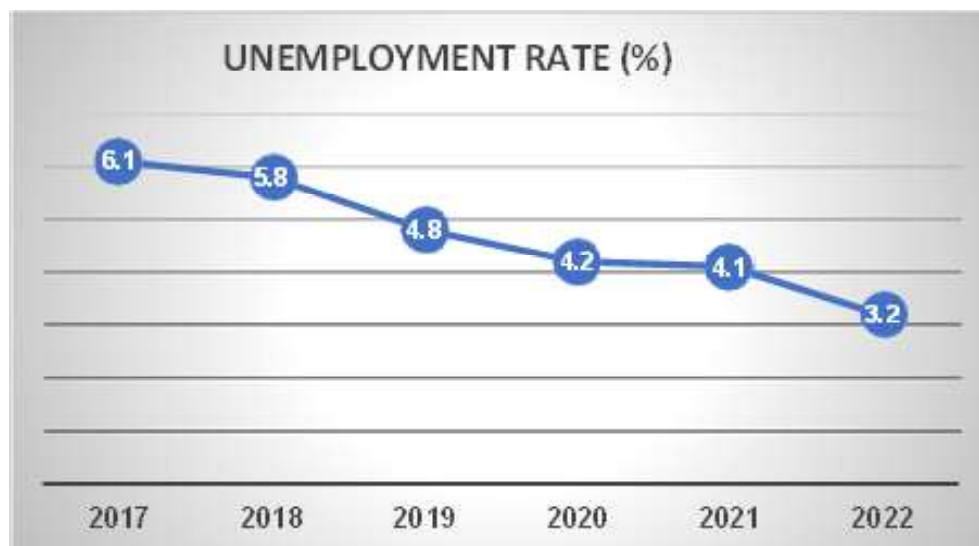
Make in India also has boosted employment generation. The Periodic Labour Force Survey (PLFS), published by the National Sample

Survey Organisation (NSSO), has recorded a consistent decline in the unemployment rate of India since 2017 as evident in *graph 2*.



Graph 1: FDI in India (2014-2022)

Source: World Bank



Graph 2: Unemployment Rate (%) Source: Periodic Labour Force Survey Annual Report 2022-23

Make in India has acted as a catalyst to boost employment-oriented economic growth with a priority to produce many wealth creators. Make in India's real success will come when share of manufacturing in the Indian economy increases from the present 17 percent to 35 percent, as envisioned. Make in India initiative got a further filip with the AtmaNirbhar Bharat Abhiyaan in 2020, that focused on developing a holistic strategy for future-proofing the economy from external shocks and external dependence. Focus was oriented towards providing liquidity to the MSMEs, incentivise agripreneurship and creating viable sources of income for the underprivileged⁴.

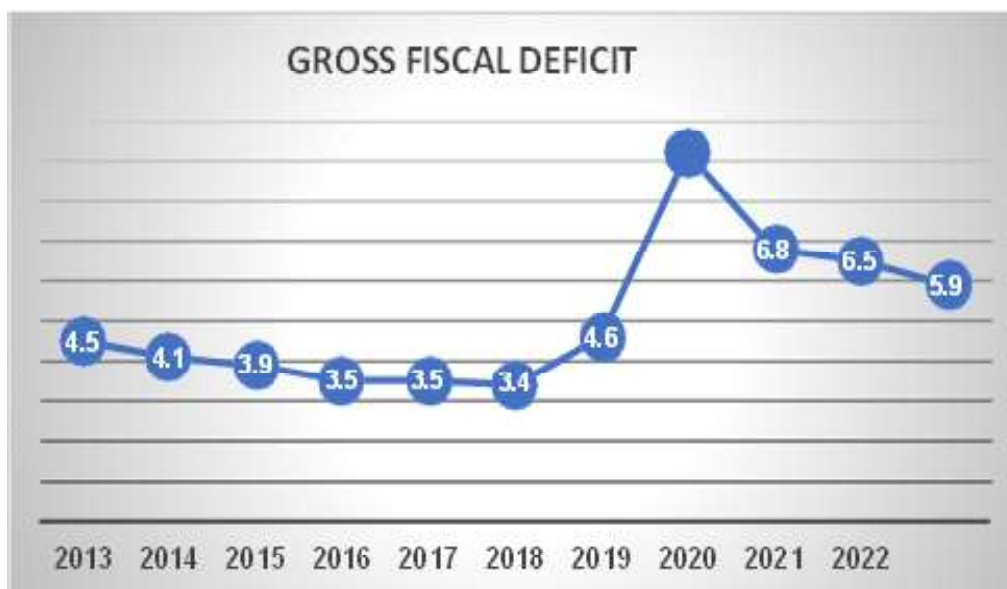
Fiscal Prudence

One of the most crucial aspects of the Modi

government's economic agenda has been a stable and prudent fiscal policy.

To maintain fiscal discipline and regulate government spending, Parliament of India enacted the Fiscal Responsibility and Budget Management (FRBM) Act, 2003. The Act mandated the government to maintain a fiscal deficit of less than 3%. Towards this end, the Govt. of India aims to limit public debt, borrowings and thereby, interest payments. India's Gross Fiscal Deficit since 2013 has been demonstrated in *graph 4*.

Here, it is visible that even though in the pandemic the fiscal deficit of the country tripled of the desired level, the country is enroute to reduce the deficit, indicating that the government is prudent in its spending.



Graph 3: Gross Fiscal Deficit (2013-2023)

Source: RBI

Goods and Services Tax (GST)

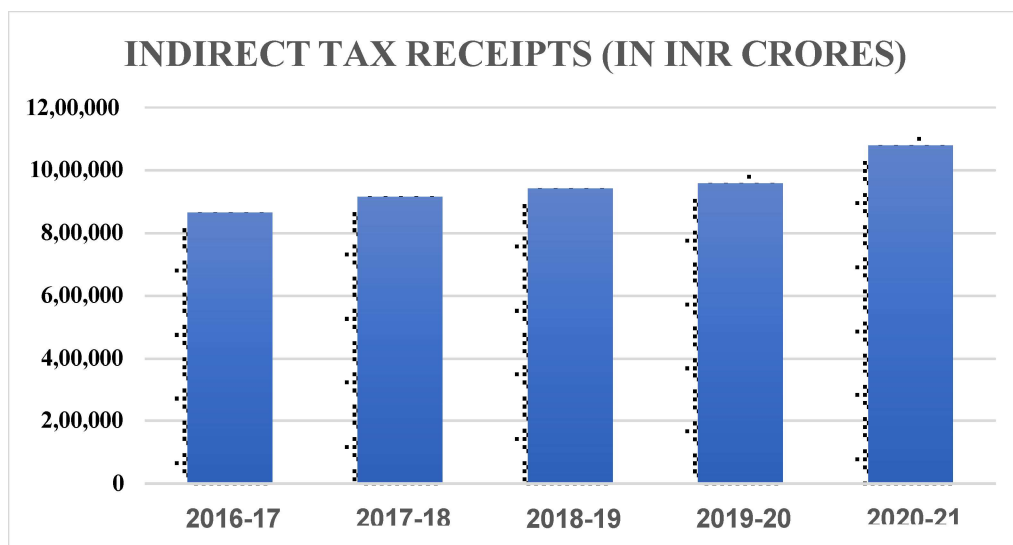
One of the single biggest reforms undertaken by the Modi Government is the constitutional

amendment that led to the adoption of the GST. Towards improving tax collection and enabling ease of tax payment, the GoI introduced the Goods

and Services Tax (GST), a major structural change in the economy. The objective was to replace the prevailing complex and fragmented tax structure with a unified system that would simplify compliance, reduce tax cascading, and promote economic integration. It replaced the previous regime of multiplicity of taxes including VAT and service tax that were imposed on manufacturers.

Since its introduction in 2016 and after the initial hiccups, GST has now streamlined tax collection and has greatly improved tax compliance and collection.

Since its introduction, GST has enabled a decent increase in the indirect tax collection, surpassing more than INR 10,00,000 crores in 2020-21 (see graph 7).



Graph 4: Indirect Tax Receipts (2016-2020)

Source: Union Finance Accounts

As monthly GST collections top 1.78 lakh crore, for the fiscal year 2023-24, total GST collection topped 20 lakh crore and has witnessed double digit growth rates. This indicates a growing economy and a robust tax mechanism, enabling the government to plan its long term spending and capital expenditure.

Banking Reforms

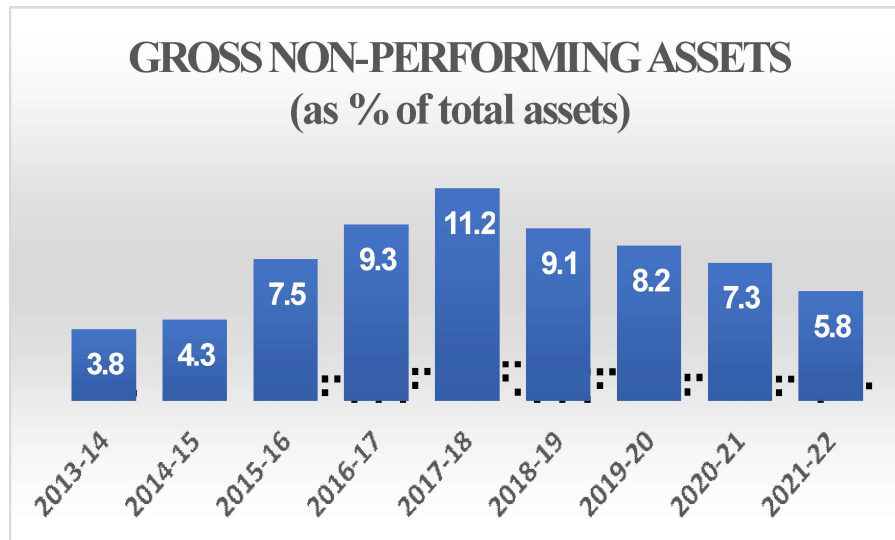
In 2014, the banks of the country were grieving from an unprecedented and undisclosed crisis. With the collapse of the Leeman Brothers in 2008, a set of emergency measures were introduced to

provide banks a leeway to prevent spillover of the global crisis. As a result, regulatory forbearance was introduced wherein restructured assets were no longer required to be classified as Non-Performing Assets (NPAs) and therefore did not require the levels of provisioning that NPAs attract. It provided a temporary relief for both the borrowers and the lenders, but its prolonged implementation resulted in piling up of undisclosed NPAs⁵.

Regulatory forbearance was coupled with the fact that banks were involved in increased risky lending since mid-2000s⁶. These borrowers when

started to default were not displayed on the balance sheet of the banks owing to regulatory forbearance. Once the forbearance was lifted in 2014, the NPAs started to reflect on the balance of all banks. This fact is reflected in graph 8 that depicts the Gross

NPAs of the SCBs. Its clear that GNPA's have increased till 2017-18 after which they witnessed a progressive decline, indicating dispersal of good loans by SCBs.



Graph 5: Gross Non-Performing Assets (GNPA) % of total assets of SCBs Source: RBI

Government's biggest reform push has been towards a clean up of the banking industry and concerted measures to reduce the GNPA.

Mission Indradhanush is one of the most comprehensive efforts to improve the health of Public Sector Banks (PSB). It covers all aspects of banking functions from appointment to a path towards addressing bad assets. It is meant to bring in transparency, professionalism and build robust balance sheets for banks. The several components of Mission Indradhanush include:

- Appointments - The separation of the post of CEO and MD to check excess concentration of power and bring greater transparency in decision making.
- Creation of Banks Board Bureau - it has

replaced the appointments board of PSBs and advises banks on fund raising; besides holding bad assets for the banks.

- Capitalisation - PSBs that were earlier struggling with bad assets and inadequate capital have now been well capitalised.
- De-stressing - Address pending issues in the infrastructure sector, which in turn reduces the problem of stressed assets for banks.
- Empowerment - providing greater autonomy for banks and more flexibility for hiring manpower that can allow PSBs to become competitive and efficient.
- Framework of accountability - key performance indicators for banks like NPA

management, financial inclusion, diversification and growth, improve asset quality are all matrix that are now carefully monitored.

- Governance Reforms

Improved Legal Framework for Loan Recovery for Banks :

By enacting laws that allow banks to recover bad debts, the Government has aimed to address one of the thorniest issues for banks. amending laws like the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI) have provided banks greater visibility in terms of acting against defaulters and bad loans. Such reform measures also go a long way in building investor confidence.

Revised Prompt Corrective Action Framework-

In 2017, with the idea to implement the Basel III norms, the RBI revised the Prompt

Economic Action Framework for Banks⁷. Capital, asset quality and profitability were the key areas for monitoring. The instruments of monitoring included CRAR, Net NPA Ratio, profitability and Return on Assets. It mandated banks to prepare a recovery plan in cases of emergency, manage credit and market risks. PCA framework is applicable to all the banks operating in the country including small banks and foreign banks. Inability to maintain the standards enunciated by the RBI, banks will be brought under the purview of PCA. The banking regulator can impose a host of restrictions on banks, ranging from restrictions related to the expansion of a branch, dividend and director's remuneration and so on.

Asset Quality Review

While self-regulation is crucial, RBI has been actively engaging in the process of Asset Quality Review (AQR) initiated in 2015. RBI's detailed assessment of the bank's overall lending helps it to analyse the vulnerability of a bank to risky lending. It was through AQR, under which RBI has been continuously monitoring banks, that the rising level of NPAs were addressed. Besides the AQR, the RBI's Strategic Debt Restructuring scheme have allowed banks to convert their loans to corporates and entities into major equity in the company. This is an innovative strategy that has protected banks from potential defaulters and added a new revenue stream.

Merger of Banks

Since 1991, fewer but stronger PSBs have been envisaged to create an efficient banking system capable to address the needs of a developing economy. These stronger PSBs were envisioned to act as catalysts of growth for the banking sector and provide a robust framework capable to withstand the headwinds of international economy. Merger of PSBs was reiterated by the Narasimhan Committee in 1998 and again the Leeladhar Committee in 2008. Beginning 2017, government has initiated a set of reforms for merger of banks in the country. Since then, the number of PSBs has been reduced to 12. Post these mergers, profitability of banks has consistently risen as presented in figure 1. Profitability figures are also a result of reduced NPAs, lower cost of operation, better geographical coverage and higher economies of scale.

National Asset Reconstruction Company Limited

To enable asset reconstruction, budget 2021-22 announced the formation of an ARC-AMC structure, comprising of two entities for aggregation and resolution of NPAs in the Banking Industry. It has been set up with a strategic initiative to clean up the legacy stressed assets with an exposure of Rs 500 crore and above in the Indian Banking system. It will provide assistance in consolidation of debt, currently fragmented across various

lenders, thus leading to faster, single point decision making including through IBC processes, where applicable. It will incentivize quicker action on resolving stressed assets thereby helping in better value realization.

Indian banks, which are the backbone of the economy and are vital for stimulating a virtuous cycle of economic growth, have been witnessing reforms under the government's 4R strategy, namely Recognition, Resolution, Recapitalisation and Reform.



Fig. 1.: Net Profits of public and private sector banks in India

Source: ResearchGate

Ease of Doing Business

For a country like India, setting up a business, operating it and maintaining it were considered to be a meticulous task. The fear of failure of a startup was persistent and continued to plague the development of wealth creators. To give the much-needed boost to entrepreneurship, creation of an investor-friendly ecosystem is crucial. This requirement was felt by the Modi government which worked towards improving ease of doing

business. Improvement of India's ranking in World Bank's Ease of Doing Business became a priority.

GoI launched the PM MUDRA Yojana wherein loans of upto 10 lakh are provided to income generating micro enterprises engaged in manufacturing, trading and services sectors. More than 37.76 crore loans amounting to over Rs. 20.43 lakh crore have been disbursed since inception of the Scheme in April 2015. It has helped in generating 1.12 crore net additional employment during a

period of nearly 3 years⁸. India ranked 25 in terms of getting credit with the successful implementation of this scheme.

Real Estate (Regulation and Development) Act, 2016

For setting up any business easily, the process of getting construction permits needs to be streamlined. Recognising this gap, Parliament enacted the Real Estate (Regulation and Development) Act, 2016 that significantly helped reduce corruption in acquiring land, building construction and enabling physical operations of the business. Post this major reform, India's rank improved significantly in this parameter to 27. RERA made it mandatory for builders to register their projects before the start of the project. It also seeks to address other issues like pricing, quality of construction, and other charges. While this has greatly improved ease of doing business, RERA has had a larger impact on improving the real estate sector by providing much-needed transparency.

The third key parameter associated with improving ease of doing business is continued access to electricity. Power reforms related to distribution and transmission have improved the health of state-owned Discoms, thereby ensuring electricity for businesses.

Implementation of the Deen Dayal Updhyay Gram Jyoti Yojana (DDUGJY) and SAUBHAGYA has allowed 100% electrification of rural households enabling them access to electricity and providing better opportunities.

Insolvency and Bankruptcy Code, 2016

Another key aspect of improving the business

climate in the country to make it attractive for global investors was allowing easier exits to investors in case of unsuccessful ventures. The Insolvency and Bankruptcy Code (IBC) was enacted in 2016. It provides time-bound processes for insolvency resolution of companies and individuals by licensed Insolvency Professionals (IPs). The Code specifies similar insolvency resolution processes for companies and individuals, which will have to be completed within 180 days. The resolution process will involve negotiations between the debtor and creditors to draft a resolution plan, paving the way for a process-driven exit in a time-bound manner. IBC has significantly helped improve India's ranking as it ranked 52 in Resolving Insolvency parameter.

IBC allows visibility to investors in case of unsuccessful business ventures. Easier exits give comfort to global investors to evaluate alternate investment opportunities.

Codification of Labour Laws

An important but less talked about area where reforms have had a major impact on investor sentiment and greatly improved India's position as the most attractive investment destination is in the area of ease of acquiring labour and protecting labour rights. Previously, the central government alone had over 40 labour laws coupled with different labour laws in different states. Most of the labour laws were colonial in nature and did not address the changing dynamics of the society. Any increase in number of workers required additional compliances with innumerable labour legislations. In 2019, the GoI streamlined over 29 union labour laws into four codes namely, Code on Wages, 2019, the Industrial Relations Code, 2020, the

Occupational Safety, Health and Working Conditions Code, 2020, and the Code on Social Security, 2020. This rationalisation of laws aims to achieve a balance between labour rights and ease of operating a business. While India does not advocate a ‘hire-and-fire’ policy, providing businesses with flexibility and reduced compliance, allows greater avenues of job creation.

While there are parameters wherein India needs to improve significantly, the country has witnessed an unprecedented growth in the number of unicorns startups (valuation of USD 1 billion dollars or more). As per Venture Intelligence Unicorn Tracker, India has over 101 unicorn

startups, of which 98 entered the list post 2014⁹. Thus, creating a conducive environment for start-ups has been a crucial aspect of ensuring economic growth but the development of dreams and aspirations.

In order to chart out the economic growth or development of any country, a significant level of planning has to be undertaken with an objective of setting long-term goals. The agenda of Viksit Bharat is one such goal enunciated by Prime Minister Modi. Strategic economic policy towards sustaining a comprehensive development agenda is an ongoing process and more needs to be done to ensure India becomes a developed economy by 2047.

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Bharat's Videsh Niti Unleashed

Deepak Vohra*

In Bharat's foreign policy, diplomacy and the military have become Siamese twins. The new mantra is 2+2 meetings between the External Affairs and Defence Ministers and their foreign counterparts.

Why does every nation, big and small, want to befriend Bharat? I have a simple answer. In international affairs, particularly when there are divergences of opinion, we are the swing state. World leaders are comfortable with us; they trust us. So in March 2024, India's Prime Minister spoke to the Russian President and also to the latter's implacable foe—the President of Ukraine.

Bharat has not taken sides or abused one or the other side. So, everyone expects us to find a solution. No one trusts China's mediation, and the peace plan it came out with two years ago is dead.

The Ukrainian Foreign Minister, who had commented acerbically that India was buying Russian oil mixed with Ukrainian blood, came to India in end-March 2024, but unable to overcome his sense of racial superiority (like the Nazis, western Ukrainians claim Aryan decent), tried to give us 'gyan', that India's relations with Russia are based on the Soviet legacy, which was close to extinction, so India should dump Russia and turn instead to Ukraine.

The new India scoffed at him. When I first entered South Block in July 1973, I could sense the silos within the same ministry. A few decades

later, we moved to an all-of-government approach. In the last ten years, I have seen an all-people approach.

Foreign policy is no longer under a bushel; the average citizen is interested and tries to understand it, especially after the 'janbhagidari' of the G-20 Summit in New Delhi in September 2023, with sessions in over 250 cities. Its successful organisation immeasurably boosted our self-confidence, and foreign affairs became every Bharatiya's concern.

A country's foreign policy reflects its domestic capacity. I was a student at the National Defence College in 1991, when the Soviet Union imploded. There were many predictions in the mainstream media (since social media did not exist) by self-styled experts that with the demise of India's best friend, New Delhi would face insurmountable challenges. Such analysts have always been in denial of India's resilience and mastery over 'jugaad'. Liberalisation of the economy came, and India grew from strength to strength. Our nuclear tests of the late 1990s shook the world, but since we were now a declared nuclear power (a foreign policy masterstroke), no one wanted to seriously offend us (except a few minor western nations stuck in a time warp) who hectorated us and imposed meaningless sanctions. The smaller ones screamed the loudest, even though the budget of a mid-sized Indian municipality was more than their GDP!

**Ambassador Deepak Vohra is a former diplomat and a former Ambassador of India to Poland. He has served in France, Tunisia, United States, Chad, Cameroon, Papua New Guinea, Spain, Armenia, Sudan and Poland. He is currently a special advisor in Africa.*

Pakistan attacked us in 1999, scampered away with our boot imprint on its rear, and the world took note of our military strength. In 2000, our young IT experts successfully obliterated the Y2K bug in computer systems across several countries. Information technology multinationals rushed to Bengaluru, and those who lost their jobs in their home countries talked of being “Bangalored.”

Tired of the shenanigans of the Masters of the Universe, in 2003 we decided to decline all foreign aid—our self-confidence skyrocketed. In particular, the atavistic British, unable to forget that aeons earlier they had been a great power, felt cheated of their destiny to be a perennial aid donor. There were furious debates in the ensuing years in the House of Commons and the House of Lords, but did we collapse?

Quite to the contrary, India’s all-round prowess was quickly on display. The Quadrilateral Security Dialogue, or QUAD, arose from the 2004 tsunami, in which we were the first responders, along with three other nations involved in rescue operations: the USA, Japan, and Australia. In clear view was Bharat’s ability to put together an impressive fleet within days and assist its maritime neighbours like Sri Lanka, the Maldives, Bangladesh, and Indonesia—32 ships and 5,500 naval personnel, even as it carried out magnificent relief efforts in Tamil Nadu and the Andaman and Nicobar Islands.

“It will be a key pillar of stability in the Indo-Pacific region,”¹ Prime Minister Narendra Modi said at the first-ever Quad Summit. Make no mistake about it: Quad will grow faster now and willy-nilly will become the core of the Free and Open Indo-Pacific (FOIP) vision, with a “tough security-oriented core and a softer and inclusive

exoskeleton that prioritises the developmental agenda.”² As our reputation as an effective international player soared, so did our economy. Robert Merton’s Law of Unintended Consequences had kicked in. By 2007, we were a one trillion dollar economy!

Our technological prowess excited admiration and envy in equal measure. In 2017, we deployed 104 satellites in sun-synchronous orbits in a single mission, an unbroken world record. If the economy and popular will are strong, a country’s international relations reflect that. As a Special Advisor in some African nations, I see that their self-confidence and self-esteem are abysmal, so their renaissance falters. Unable to deny Bharat’s amazing progress, some western NGOs and so-called think-tanks (they tank because they cannot think) derive ghoulish delight from running Bharat down on all manner of “indices”—freedom, democracy, happiness, media, output, etc. At least it gives us a good reason to laugh.

We have reached our present level of development as the fourth-largest economy in the world and as a vibrant democracy with all its warts and weaknesses. We do not impose our views on our partners but ask them to define their priorities that we try to respond to. Nor do we keep supervising projects that we fund in other countries; we give them space and respect their competence. We do not pontificate on good governance. Our soft loans are among the most generous in the world, with a very large grant element. Our human resource development partnership is most sought-after, with thousands of scholarships every year.

Bharat’s medical facilities are the best in the world, and when I travelled back to Bharat

recently from New York, the American cabin crew told me how they come to Bharat regularly for dental treatment that is much better and far cheaper than anywhere else. When the present regime took over 10 years ago, many of the same naysayers predicted that foreign affairs would be Narendra Modi's weakest link, given his lack of expertise. How wrong they were! He hired the best in the trade, turned the system of non-alignment on its head, dumped the clichés in our foreign policy establishment, and made new friends across the globe. Since we could not give away Kashmir, he decided to wean away Pakistan's supporters. And how!

Today, Pakistan is totally isolated, even in the Islamic world. Its economy is in a coma, kept alive in the Critical Care Unit of the International Monetary Fund with some oxygen from China and a couple of others. Arab nations have vied with each other to give Bharat's Prime Minister their highest national honours. Soon after the visit of its Sultan to Delhi, Oman allotted a specific zone to Bharat in the strategically located Port of Duqm, which overlooks the Gulf of Oman, the Arabian Sea, and the Indian Ocean, a development that will enhance Bharat's role in the western and southern Indian Ocean region.

Bharat's assertion of its strategic autonomy has been anathema to some external powers, but that has not deterred New Delhi. It was clearly visible in the curt response given by the MEA to comments made by Germany, the United States, and the United Nations on the arrest of Delhi's Chief Minister. New Delhi promptly and publicly ticked them off for commenting on Bharat's transparent and democratic judicial system. The

Indian media too went to town, pointing out that we had not commented on the apparent witch hunt against a former US President, and wondering why this Chief Minister's arrest had so rankled the West. In another earlier incident, wherein the Prime Minister of Canada, Mr. Justin Trudeau, accused Bharat of complicity in killing one of its citizens on June 18, 2023, New Delhi simply called the accusation "absurd"³ and asked Canada to remove 41 of its 62 diplomats from its overstuffed mission in the country.⁴ Here too, the people of Bharat, masters of social media, were more aggressive in their response, which once again is an expression of a New Rising Bharat. It was the same Mr. Trudeau who made unwarranted comments about Canada being "there to defend the rights of peaceful protest" when farmers in India were protesting in 2020. This too was responded to firmly by the Government of India. Now, in 2024, he has not uttered a word in support of protesting Indian farmers. Things certainly have changed in the last decade!

In January 2024, three ministers from the Maldives made derogatory comments on Bharat's prime minister, after he tweeted a photo of himself at a beach in Lakshadweep and asked Bharatiyas to go and see it. The swift and angry response from Bharatiyas resulted in the cancellation of holiday trips to the Maldives by many Indians, prompting local tour operators to beg for forgiveness. Faced with unsustainable debt, the new prophet of Islam, the President of the Maldives, now begs Bharat to reschedule the payments due to it.

Bharat's articulation on the world stage, including the "one-liners" by its foreign policy

leadership and its firm actions in the face of major international challenges, not only brought laurels to it but forced the world to sit up and take note. In 1947, our bodies became free. In 1971, our strength was liberated. In 2022, Netaji Subhas Chandra Bose took his rightful place in our pantheon of heroes, and our minds were unshackled. In 2023, Chandrayan liberated our self-confidence, and in January 2024, when “Ram Lalla’ came home, our souls were liberated.

Our pride soared when we got our own state-of-the-art Parliament building and rediscovered the ‘Sengol’, derived from the Tamil word “Semmai” for “righteousness” and associated with the Chola Empire. This Empire was one of the longest-ruling and most influential dynasties in South Bharat, and was known for its military prowess, maritime trade, administrative efficiency, cultural patronage, and temple architecture.

Swami Vivekananda said: “I see that each nation, like each individual, has one theme in this life, which is its centre, the principal note around which every other note comes to form harmony.”⁵ As we look into our past with pride, there is, on every side, a fresh manifestation of life. It is out of this past that the future is being moulded. Proactive diplomacy, together with strong ground positions, is Bharat’s new mantra, which its bullying northern neighbour now understands at a cost.

Numbness and pussyfooting dominated Bharat’s foreign policy for decades after independence. We always punched much below our weight. There were some sporadic exceptions in the neighbourhood, like Prime Minister Indira Gandhi’s actions during the 1971 Bangladesh War or our intervention in the Maldives in 1988 to

prevent a coup. But Bharat was seen as a pushover by all and sundry in the world till we resolutely stood up to international pressures with our 1998 nuclear tests.

Gone are the days when our leaders delivered marathon speeches at the UN. “I can say in six minutes what V. K. Krishna Menon took hours to do at the UN. We should stop giving ‘gyan’ to the world and worry about our national interests,”⁶ Bharat’s outstanding External Affairs Minister told Parliament in August 2022.

In May 2023, in Port Moresby, Papua New Guinea Prime Minister James Marape bent down to touch the feet of PM Narendra Modi, who was there to host the third summit of the Forum for Bharat-Pacific Islands Cooperation. The respected public affairs company, Morning Consult, has consistently ranked Narendra Modi first among 22 world leaders with a huge approval rating, well ahead of the second-placed leader. According to a report by American investment banker Morgan Stanley in May 2023, “in just a decade, Bharat has gained positions in the world order with significant positive consequences for the macro and market outlook.”⁷ The report lists 10 big changes (including supply-side policy reforms, formalisation of the economy, digitalising social transfers, a focus on FDI, and government support for corporate profits) that have propelled MNC sentiment to a multi-year high. The New York Times, which for the most part writes rabidly anti-Bharat articles, has acknowledged the explosive growth of Bharat’s space tech startups (over 140 and fast growing) and says Bharat is set to “transform the planet’s connection to the final frontier.”

US-based semiconductor company Micron

Technology said it was surprised by how quickly Bharat implemented its side of the deal, and it had to move very fast for Bharat's first chip facility in Gujarat, which will create 5,000 direct and 15,000 indirect jobs in the coming years. Apple says it is easier to do business in Bharat than in China. Taiwanese giant Foxconn signed a deal with Tamil Nadu to invest almost USD 200 million in a new electronic component manufacturing facility that will create 6,000 jobs.

The CEO of McKinsey & Co. says it is not just Bharat's decade, but Bharat's century. He is spot-on. In foreign policy, we have the duck syndrome. Everything seems placid on the surface, but below, the feet are paddling furiously. That is how we brought our sentenced-to-death naval heroes home from Qatar.

Since the present Prime Minister came to power, I have seen success after success in our foreign relations. Our diplomacy in modern Bharat is cost-effective and result-oriented. We discuss, negotiate, and respond with facts and figures. Narendra Modi's incessant visits and "hugplomacy" are how legends are born. In 2021-2022, we gave free vaccines to dozens of poor countries, while the West hoarded its stocks to sell them for a profit. The global appreciation for India's gesture was amazing.

Our relief for Nepal, devastated by a huge earthquake in 2015, arrived within 8 hours (the rich nations were expressing condolences), and the Nepalese Prime Minister said his country was blessed to have a neighbour like India. A year earlier, we had quenched the thirst of Maldivians with desalination plants on two Bharati ships. We pulled Sri Lanka out of the Chinese pit into which

it had fallen. We are ensuring safety in the Red Sea and rescuing sailors from around the world. When her children were insecure in Lebanon, Syria, Ukraine, Sudan, Libya, or Israel, Bharat Ma reached out to bring them home. One Arab Minister told me that with America having run away from the region, Russia being occupied elsewhere, Europe in distress, and China totally unreliable, their best hope for a "security provider" (and I quote verbatim) is a "superpower called Bharat!"

When earthquakes hit Syria and Turkiye, we were the first responders. When food-stressed nations needed cereals, we were the first to help. Bharat joined the Missile Technology Control Regime in 2016, as blatant proliferator China is not a member and could not block Bharat's entry. Unable to stomach a rising Bharat, China tries its best to hurt us, even as its own economy tanks, foreign investment declines dramatically, and its international reputation is in tatters. It has consistently blocked our membership in the Nuclear Suppliers' Group, a 48-member body that requires consensus to admit new members. Bharat formally applied for membership in 2016.

China, stung by our solid rejection of its dying Belt and Road Initiative that it wanted Bharat to join, is now exhibiting a hellish fury, like a woman scorned. The 2020 Galwan conflict and the 2022 Tawang episode reflect that rage. China will never accept Bharat's rise since it fancies itself as the next master of the universe. In a few decades, will its 9-dash line become a 99-dash line to include the entire galaxy and Milky Way?

I am not being facetious. Take the case of ASEAN. China once considered ASEAN its sidekick, and ASEAN was too timid to assert itself.

In July 2010, at the ASEAN Regional Forum (ARF) meeting in Hanoi, the Chinese Foreign Minister, fuming at the temerity of 10 countries that had raised the contentious South China Sea dispute, stared at his Singaporean counterpart and thundered, “China is a big country, and other countries are small countries, and that is just a fact.”⁸

Some years ago, an ASEAN leader called the association an aircraft, with China and Bharat as the wings. But as the China wing is destabilising, the Bharat-ASEAN dynamic has added a military dimension. We have been participating in joint drills in the region at least since 2019.

China has claims to the territories and waters of almost all ASEAN members. Just a few days before the G-20 Summit in New Delhi and the ASEAN Summit in Jakarta, China published a new standard map of China showing large parts of Bharat, Vietnam, Malaysia, the Philippines, Brunei, Indonesia, and Taiwan as Chinese territory. Led by Bharat, the affected nations lodged strong protests. To avoid facing the international media, Xi Jinping decided not to attend the summits.

In December 2023, a Bharati warship, on a goodwill visit, docked in Manila after passing through the contested South China Sea (claimed by six nations). In 2016, China contemptuously rejected a UN Tribunal’s judgement that awarded disputed islands to the Philippines. In a joint press conference in March 2024, the Foreign Minister of the Philippines said that the bilateral relationship had reached unprecedented levels, while his Indian counterpart promised to stand by Manila regarding its territorial integrity. China saw red and said third parties should not interfere in bilateral disputes, conveniently forgetting China’s role in Pakistan-

occupied Jammu and Kashmir.

The Philippines has bought 100 Brahmos missiles from India in 2022 against a soft loan; delivery has begun. In December 2023, Bharati military officers were in Vietnam for interoperability exercises. Hanoi acquired its first Indian frigate in June 2023 and wants the Brahmos missiles. So does Indonesia, which in 1965 was keen to grab the Nicobar Islands but in 2024 is jointly developing with India the crucial Sabang Port overlooking the Malacca Straits. China’s attempt to build a so-called string of pearls around India is effectively being countered by India’s necklace of diamonds.

Bharat got the 54-member African Union into the G-20; the Western nation that chaired an earlier summit brought in the European Union. This one gesture reverberated across the developing world but hurt egos elsewhere. In January 2023, Prime Minister Narendra Modi chaired a virtual meeting of 125 developing nations and asked for their pressing concerns, which were then incorporated into the September 2023 Delhi Declaration. The brave new Bharat is recognised globally for its strategic autonomy, resolute response, and risk-taking appetite.

Bharat’s articulation on the world stage and its firm actions in the face of major international challenges have brought laurels to it and forced the world to sit up and take note. We are admired for being the leader of the Global South; we prefer to be partners in BRICS, G-20, or SCO.

In 2022, after Russia invaded Ukraine, US President Joe Biden asked us to criticise Russia; when we did not do so, he called our position “shaky,” and his officials issued their standard

warning of “consequences” if we did not fall in line. We scoffed, continued with our policies, and lo and behold, America continued to maintain cordial relations with us.

Since independence, total FDI in Bharat has been close to USD 1 trillion, and half has come in the last 10 years from over 160 countries in more than 60 sectors. Narendra Modi has reminded us that power respects only power. I call him Jambavanta, who aroused Shri Hanuman’s latent power in the Ramayana.

So long as it forgot its past, Bharat remained in a state of stupor, and as soon as Bharatis have

begun to look into their past, there is on every side a fresh manifestation of life. The more, therefore, that Bharat understands its past, the more glorious will be its future.

“Proactive diplomacy together with strong ground positions” is Bharat’s new mantra.

Narendra Modi has given us self-confidence, self-esteem, and self-reliance.

170 years ago, Victor Hugo said that no power on earth could stop an idea whose time has come. We have come of age. Bharat’s time has come.

Thank you, Prime Minister. Every Bharati stands six inches taller.

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Securing the Nation against Internal and External Threats

Aninda Dey*

It's Aninda Dey been 10 years since Prime Minister Narendra Modi assumed the stewardship of the world's largest democracy. He accepted the daunting challenge of making a population of more than 140 crore feel safe and secure and maintaining peace inside the country and at its borders.

With a 15,106.7 km land border and 7,516.6 km coastline, India faces internal and external threats. The country has been grappling with domestic and transnational terrorism, insurgencies in the Northeast, left wing extremism (LWE), and the permanent threat from Pakistan and China. As threats persist, more concerted and decisive action is needed so that India can focus better on health, education, and development.

Internal Threats

Terrorism in Jammu and Kashmir (J&K) has been the biggest internal security threat to India since the late 1980s. According to the South Asia Terrorism Portal, more than 15,000 civilians and around 7,000 security personnel have been killed by terrorists in J&K from 1988 to March 2024¹. The National Democratic Alliance (NDA) government's track record in tackling terrorism in J&K is better than that of the United Progressive Alliance (UPA). The number of terror attacks decreased by 68% from 4,117 in 2004-2014 to 1,313 from 2014 to March 2024.

Unlike the Manmohan Singh government's soft

approach to the festering problem, the Modi government's tough stance against Pakistan, separatist organisations, and on overground workers sheltering terrorists, as well as the intensified cordon-and-search operations, and sharing of intelligence inputs on a real-time basis among security forces, are responsible for the change. In the last 10 years, more than 50 terrorists and 44 terrorist organisations have been banned under the Unlawful (Activities) Prevention Act².

To root out terrorism in J&K completely, a three-pronged approach is needed. First, terrorist sympathisers, separatists, and overground workers must be ruthlessly targeted. Overground workers provide logistics, cash, and shelter to terrorists. In October 2021, the J&K Police arrested more than 900 overground workers of Lashkar-e-Taiba (LeT), Jaish-e-Mohammed, Al-Badr, and an offshoot of the LeT, The Resistance Front.

More assets of pro-Pakistan separatist organisations and their leaders must be attached. In December 2022, several properties of the banned Jamat-e-Islami worth around Rs 100 crore, including a house registered in the name of late Hurriyat leader Syed Ali Shah Geelani, were attached. People like Geelani, who brazenly spearheaded protests against India and supported Pakistan, should have been jailed long ago. Unless such leaders are jailed, they will continue to foment anti-India feelings and radicalise the Kashmiri youth. In his book *Kashmir: The Vajpayee Years*,

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ex-RAW chief AS Dulat described Geelani as the father of jihad in J&K.

New Delhi can't control Islamabad's financing of terrorism, but it should persuade global powers to put Pakistan back on the grey list of the America-controlled Financial Action Task Force (FATF). In 2021, Islamabad declared 26/11 co-perpetrator and LeT operative Sajid Mir 'dead'. Shockingly, he was convicted by a Lahore court before the FATF plenary session in June 2022, and Pakistan was removed from the list after a few months in October.

Second, a massive intelligence network with information sharing between the Army, Central Armed Police Forces (CAPF), and police personnel operating in J&K is needed. The IB and RAW can augment their capabilities by taking tips from Israel's Shin Bet and Mossad, which excel in spying and targeting terrorists.

Intelligence gathering and tracking suspects also prevent attacks and the formation of terror outfits. A combination of open-source intelligence (OSINT), social media intelligence, financial intelligence, geospatial intelligence, human intelligence (HUMINT), signals intelligence (SIGINT), communications intelligence, electronic intelligence, imagery intelligence (IMINT), technical intelligence, and cyber or digital network intelligence will be effective in foiling terror plots³.

India also needs to fully exploit the use of drones in its counter-terrorism strategy because they can be used for monitoring, surveillance, and targeting terrorist hideouts, terrorists, and suspects without endangering security forces. For example, an RQ-170 Sentinel continuously watched Osama bin Laden's Abbottabad compound before he was

killed in 2011. Drones can track the movement of terrorists for a long time and provide topography details, especially in areas where HUMINT isn't possible.

Third, developmental projects, employment schemes for the youth, more investment in the Union Territory (UT), counselling of radicalised and misguided youth, and rehabilitation of surrendered terrorists will provide a healing touch. Anxiety, depression, substance abuse, and joblessness among youth are the results of decades-long terrorism. Providing jobs will make the youth confident, ensure their future, and dissuade them from getting radicalised. According to government data, 7.4 lakh livelihood opportunities have been created since 2021-22, and 31,830 government vacancies have been filled since August 2019⁴.

The government has already taken several measures to provide a livelihood, like Mission Youth, which aims to engage and empower youngsters in the 15-25 age group⁵. Gradually, the youth have realised the futility of joining terrorist outfits. As per police data, 199 youths joined militancy in 2018 (the highest in a decade), 126 in 2019, 167 in 2020, 125 in 2021, and 110 in 2022, but only 10 joined terror groups in 2023.

J&K needs both government and private investment to bolster its economy. The government should convince investors to invest more by providing better safety and security. Lieutenant Governor Manoj Sinha has claimed investments worth Rs 13,000—Rs 14,000 crore till 2021. By September 2023, investments worth Rs 26,000 crore were "on the ground," and investments by 2025 were projected at Rs 75,000—Rs 80,000

crore⁶. In February 2024, Prime Minister Modi launched development projects worth Rs 32,000 crore in the education, railway, aviation, and road sectors.

While dealing with Left Wing Extremism (LWE), the UPA government under Dr. Manmohan Singh termed Naxals the “single biggest internal security challenge” to India. In the last 10 years, the NDA government has adopted a better strategy, focused on developing Naxal-hit states and increasing coordination between their police and the Centre. Home Ministry data shows that violence in 2014-23 decreased by 50%, fatalities by 66%, and deaths of security forces by 71%, compared to the UPA’s rule⁷.

Chhattisgarh remains a challenge. From 2018 to 2022, 1,132 Maoist attacks were reported, killing 168 security personnel and 335 civilians, with the state accounting for more than 30% of the attacks and 70%-90% of deaths. In 2023, 25 security personnel and 32 civilians were killed by Maoists in the state. With the BJP back in power in Chhattisgarh, better police coordination and intelligence sharing between the Centre and state governments can incapacitate Naxals.

Scheduled Tribes (STs), comprising 30% of Chhattisgarh’s population, are an easy target of Naxals, who fuel their frustration about the lack of jobs, land reforms, proper rehabilitation and resettlement, empowerment, economic opportunities, developmental efforts, and corporate abuse and manipulate them into joining their ranks. While land acquisition for industrialisation is necessary, not making tribals stakeholders will increase the sense of deprivation and frustration. Land acquisition should be transparent and fair, followed by immediate rehabilitation, resettlement,

and employment. Jobs will discourage youths from resorting to violence against the government. Besides, tribals living on forestland for years and earning a livelihood should be provided land rights, not uprooted for development.

Illiterate teenagers and youth are easily brainwashed by Maoist ideology and armed struggle. Establishing more Eklavya Model Residential Schools, which provide free education to ST children from class 6 to 12, will help counter Maoist propaganda, indoctrination, and mobilisation⁸. Besides, improving road and telecom connectivity will help not only tribals but also security forces in combating Naxals.

While a ruthless approach is necessary to combat LWE, the police should be sensitised on gender issues, particularly in dealing with women. Harsh interrogation methods against suspects will alienate them and drive them towards Naxals. Better intra-state and state-centre coordination and intelligence sharing, modernising the police, and setting up more camps in deep jungle areas are the only ways to break the back of the Naxals. Here, too, a combination of SIGINT, HUMINT and IMINT can play a critical role in tracking and hunting them down.

The Northeast, except for Manipur, has been relatively calm in the last few years. Violence in the Northeast has decreased by 73% from 11,121 incidents in 2004-2014 to 3,114 incidents in 2014-2023⁹. The number of security forces and civilians killed has decreased by 71% and 86%, respectively. The Armed Forces Special Powers Act (AFSPA) has been removed from several districts of all the states in the region. The Act has been removed from Meghalaya and Tripura, 60% of Assam, 19

police stations in Manipur, and 15 police stations in Nagaland. In Arunachal Pradesh, the Act is in force in only three districts.

After bringing several insurgent groups to the negotiating table under the ‘Act East’, ‘Act Fast’, and ‘Act First’ mantras, the government signed agreements with Manipur’s United People’s Front and Kuki National Organisation, Tripura’s National Liberation Front, Assam’s Karbi Anglong groups, and others. However, it has been more than eight years since the Naga Peace Accord was announced in August 2015. Still, no deal has been signed despite several dialogues with the National Socialist Council of Nagaland (Isak-Muivah) and the Working Committee of the Naga National Political Groups since 1997 and 2017, respectively. Before the situation gets out of control, renewed efforts to bring the various Naga factions and political groups to the table, iron out the kinks, and bring about permanent peace are necessary. While accepting the NSCN (I-M)’s demand for a separate flag and constitution for Nagas is unacceptable, dialogue is the only option to sign the accord.

Manipur’s volatility is the biggest hurdle to permanent peace in the Northeast. More than 200 people have been killed, 500 injured, and 60,000 displaced since the Meitei-Kuki clashes started in May 2023. Unless the Centre intervenes forcefully and brings the warring communities to negotiations, the situation could become more volatile with the Myanmar refugee problem. Blaming Meiteis or Kukis is pointless unless their problems are addressed and grievances redressed. Only a proactive role by the Centre, the chief minister, and representatives from both communities can end the violence.

Cyberattacks, like terrorism, can be launched from both inside and outside India. The highest number of state-sponsored cyberattacks in 2023 was against India at 13.7%, according to Singapore-based cybersecurity firm Cyfirma’s 2023 India Threat Landscape Report. Between 2021 and September 2023, cyberattacks increased by 278%, with IT services and BPO firms being the main targets. Cyberattacks against government agencies went up by 460%¹⁰. According to network, security, and privacy services portal Comparitech’s 2024 cyber safety report, India ranks sixth among 75 countries, with one being the least cyber-secure country¹¹.

Information was enunciated as the fifth dimension of warfare after land, sea, air, and space in 1995. Since the People’s Liberation Army is not battle-hardened like the Indian Army, having fought the last war in 1979, China will use asymmetrical tactics in a military confrontation with India. Cyberattacks form the most critical component of China’s asymmetrical warfare. Even Army Chief General Manoj Pande said recently that “disruptive technologies are transforming the character of modern wars and blunting the conventional combat ratios, which were the measure of the military’s strength and superiority in the past.”¹²

While India is cognisant of the threats it faces in the cyber, electromagnetic spectrum, and space warfare domains, much work needs to be done in these fields to negate the threats to its national security. Besides, the danger of non-state actors hacking government organisations and obtaining the personal details of citizens is another challenge. The Reserve Bank of India’s latest Financial Stability Report reveals that 13,20,106 cyberattacks

were launched against the financial sector between January and October 2023¹³.

External Threats

Pakistan and China will continue to be permanent external threats, despite India reaching out to its hostile neighbours several times.

In Pakistan's case, the line between internal and external threats is blurred as Islamabad continues its proxy war by exporting terrorists to destabilise India, especially J&K. Therefore, eliminating terrorism in J&K is more important to deal a body blow to Pakistan's sinister designs, as it's not in a position to fight another war with India due to its economic mess and the close India-United States ties. With foreign exchange reserves of merely USD 8 billion, an external debt of USD 125 billion, a growth forecast of 1.9%, and an expected inflation rate of 25% in FY2024, Pakistan can't afford another war.¹⁴

India's biggest threat is China, with its increasing territorial ambitions ranging from Ladakh to Arunachal Pradesh. Though the chances of a fifth India-Pakistan war are remote in the short term, India needs to augment its military capabilities rapidly to counter the twin threats on its eastern and western borders.

The Modi government has increased its defence budget by more than 2.5 times, from Rs 2,29,000 crore in 2014-15 to Rs 6,21,540 crore in 2024-25 (the interim budget), with the highest amount allocated to the Ministry of Defence.¹⁵ However, India should procure more arms and ammunition, other defence equipment, multirole fighter aircraft (MRFAs), a 5th-generation stealth fighter jet, armed drones, and additional nuclear

ballistic missile submarines (SSBNs) and nuclear attack submarines (SSNs) from top foreign companies and under the Make in India initiative as joint ventures at a faster pace.

The Indian Air Force (IAF) has only 32 squadrons, against the sanctioned 42. Adding the order for four Tejas Mk 1A and six Tejas Mk2 squadrons and the plan to acquire six squadrons of the 5th-generation Advanced Medium Combat Aircraft (AMCA) and six 4.5-generation multirole combat MRFA squadrons, a total of 22 squadrons are due for induction¹⁶. However, 15 squadrons would retire this decade, meaning only a net addition of seven squadrons (39), still short of 42, which won't suffice in a two-front war. Though the Cabinet Committee on Security cleared AMCA's design and development in March, the aircraft won't be inducted before 2030¹⁷. The tentative deadline is too far considering that AMCA was scheduled for a test flight in 2024-25 and manufacturing by 2028-29. India can't afford such delays, especially when China's second 5th-generation aircraft, the Shenyang J-31, is under development and Pakistan plans to buy it¹⁸.

Similarly, the procurement of 114 MRFAs has been delayed despite the IAF floating the request for interest in 2018. The acquisition of MRFAs shouldn't be delayed when Dassault has an edge with the IAF operating two Rafale squadrons and the Navy opting for 26 Rafale-Ms (Marine) for *INS Vikrant*. The Rafale-Ms must be acquired quickly to replace the Navy's aged MiG-29Ks, which shouldn't operate until 2035 as planned. Besides, India is servicing and maintaining Rafales, which will do away with the evaluation and trials of other contenders.

The IAF also needs long-range strategic bombers, particularly with China having 120 H-6 bomber variants (conventional, nuclear, and reconnaissance) and developing the Xian H-20 subsonic, stealth, strategic bomber, expected to enter service in 2025. Strategic bombers play an important role in wars by striking deep inside enemy territory and destroying military installations and equipment.

India must also bolster the Navy's deterrence and striking capability to ensure maritime security and seaborne trade, respond to emergencies, and counter China in the Indian Ocean Region. Under the cover of its Belt-Road-Initiative, China, which has the world's largest navy, plans to build three more military bases after Djibouti, Africa, in the next two to five years—Hambantota, Sri Lanka; Bata, Equatorial Guinea; and Gwadar, Pakistan¹⁹. Therefore, two more aircraft carriers and additional SSNs, warships, and drones are urgently needed.

Four carrier battle groups will make sure that India's western, eastern, and Andaman naval bases are guarded if the fourth aircraft carrier is under routine maintenance. China launched its third and most advanced carrier, *Fujian*, in June 2022 and plans to have two nuclear-powered carriers. The construction of a second indigenous carrier has already been delayed, with the Defence Acquisition Council yet to clear it. Therefore, the carrier won't enter service before 2035. Besides, the initial plan of having a nuclear-powered 65,000-tonne carrier was jinxed due to budgetary concerns. Subsequently, the Navy had to settle for a 40,000-tonne carrier on the lines of the 45,000-tonne indigenous *INS Vikrant*. India's other carrier, *INS Vikramaditya*, has a displacement of 44,570 tonnes.

In a war with China, Indian carriers will be pitted against the 80,000-tonne *Fujian*, 60,000-tonne and 66,000-tonne *Liaoning Shandong*. India needs heavy nuclear-powered carriers, which pack a bigger punch as they have more fighter/bomber jets, sensors, and weapons, unlimited range and endurance, don't require frequent fuel replenishment, generate more electricity, and are floating airbases.

It's an anomaly that India, given its no-first-use policy, doesn't even have one SSN while China has six. Under Project-75 (India), conceived in 1997, 6 conventional attack submarines and 18 conventional submarines were supposed to be constructed by 2030. However, the project was cleared after 10 years in 2007 with no progress. The NDA government finally gave it a fresh 'Acceptance of Necessity' in February 2019, but it took another two years before the formal tender was issued.

India needs to opt for SSNs, which can remain completely submerged for years without detection. After the lease of *INS Chakra* and *INS Chakra II* ended, India is looking to acquire *Chakra III*, which Russia will develop under a deal signed in March 2019. The stated delivery time is 2025.

A country's nuclear triad is incomplete without an SSBN, which can guarantee survivability in a nuclear conflict. India has only one SSBN, *INS Arihant* (S2), armed with K-15 short-range (750 km) SLBMs, which can hit only south Pakistan and no important targets in China. The 3,500-km intermediate-range SLBM K-4 has been tested but has not entered serial production. The second *Arihant* series SSBN, *INS Arighat* (S3), was launched in 2014 but hasn't been commissioned.

Though the third in the series, codenamed S4, is highly classified, UK-based *Janes Defence Weekly* reported that it was quietly launched at Visakhapatnam's Ship Building Centre in November²⁰.

Similar procrastination and lack of urgency plagued the hunt for a robust infantry rifle for the last 13 years after the indigenously developed INSAS 5.56x45mm was declared operationally unfit over its sights and firing mechanism in 2010. The Indo-Russian Rifles Private Limited, formed in 2019, to manufacture 671,000 AK-203 7.62x39mm rifles locally, has been delayed due to the Ukraine War. Consequently, the government approved the purchase of an additional 70,000 SIG Sauer SIG716 7.62x51mm rifles last December to meet the shortfall²¹.

As the Indian Army is the largest user of small arms globally, issuing a world-class rifle with a standard calibre quickly should be prioritised. Internal tests, acceptance, and user trials took years before the INSAS was inducted. While the Defence Research and Development Organisation (DRDO) deserves a pat for producing the 7.62x51mm Ugram rifle in a record 100 days, tests and trials should be expedited to induct them quickly. Moreover, upgrading an operationally unfit INSAS to reduce costs and meet the shortfall is pointless. Besides, India must use a standard calibre in the 7.62 series. Producing 7.62x39mm (AK-203 and AK-47) and 7.62x51mm (SIG Sauer and Ugram) rounds in a war will be difficult.

India also urgently needs a light tank to counter the 33-tonne Chinese Type 15 tank (ZTQ-15), deployed on the Tibetan plateau during the 2020 eastern Ladakh standoff. The ZTQ-15 is highly

agile, even on plateaus, and entered service way back in 2018. China conducted integrated and comprehensive air force and army drills involving the tank on the Qinghai-Tibet in 2020, considering the threat from Indian tanks and armoured vehicles.

The T-72, T-90, and indigenous Arjun tanks are too heavy to operate in mountainous terrain. India realised the urgency of a light tank during the Ladakh crisis. Yet the project was launched two years later, with development trials scheduled for April and May of this year²². Only the Russian Sprut-SDM1 meets India's need for an amphibious 25-tonne tank, but a deal hasn't been signed yet.

Make in India

The Atmanirbhar (self-reliance) Bharat Abhiyan, which aims to provide impetus to Make in India, has boosted self-reliance in defence. According to government data, the expenditure on defence procurement from foreign sources decreased from 46% of overall expenditure in 2018-19 to 36.7% in December 2022. On the other hand, defence exports jumped by 21 times from Rs 4,312 crore in the UPA era to Rs 88,319 crore in the last 10 years²³. To reduce further dependency on imports and turn Make in India into a global success story, immediate reforms are needed.

First, India continued to be the world's largest arms importer, accounting for 9.8% of total global sales, with 36% of imports from Russia in 2019-23²⁴. Russian weapons comprise 60% of India's military hardware, ranging from tanks and missiles to fighter jets and their spares. However, unforeseen events like the Ukraine War have affected the delivery of Russian weapons, like the

joint production of the AK-203 rifle. In March 2023, the IAF said that Russia wouldn't be able to deliver a "major" platform without naming it as India awaits two more S-400 Triumf air defence systems²⁵.

Reducing imports by making world-class defence equipment fast is the only way to sustain supply lines despite cataclysmic events. Therefore, more funds are needed for self-reliance. However, the DRDO's allocation in the interim budget was increased to only Rs 23,855 crore from Rs 23,263 crore last year.

Second, long deadlines and delivery delays, which escalate costs, must be avoided. Delays can be dangerous in the event of an impending war where ramping up production is the only way to sustain supplies of arms and ammunition to the military. For instance, the delivery of 118 Arjun Mk 1As has been delayed after Germany couldn't supply the MB 838 Ka-501 V10 engines. Later, DRDO decided to develop the indigenous Datran 1500 engine, which won't be delivered for three years²⁶. Similarly, the 55-tonne, all-terrain, and AI-enabled Future Ready Combat Vehicle, a replacement

for the T-72, will be inducted only by 2030²⁷.

Third, more private sector companies should be allowed into defence, which will enhance the sector's capability and competitiveness. India opened the sector to 100% domestic private sector participation in May 2001, but the share of private companies in total defence production of Rs 73,739 crore in 2023-24 was only 21.96%²⁸.

Exclusive public sector participation in manufacturing fighter jets, helicopters, submarines, and tanks is missing. On the other hand, American weapons giants Lockheed Martin, Raytheon Technologies, Northrop Grumman, Boeing, and General Dynamics were the top five arms sellers in 2022, according to the Stockholm International Peace Research Institute²⁹.

Involving the private sector in strategic partnerships with DRDO will further enhance technology, innovation, capital, and efficiency. Once DRDO finalises the design, the private partner can design, develop, and manufacture the product, substantially reducing the organisation's burden and preventing cost escalation and missed deadlines.

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Renewable Energy Expansion and Decarbonisation: Moving Towards Net-Zero Emissions

Jagjeet Singh Sareen*

Introduction

Bharat's electricity sector is set for substantial growth and diversification. Bharat has set several targets for energy transition, security, and access, with specific timelines. As a part of the Nationally Determined Contributions (NDCs) submitted to the UNFCCC, India aims to increase the share of installed capacity for electric power derived from non-fossil fuel sources to 50% by 2030. Additionally, Bharat has set a goal to achieve net-zero emissions by 2070¹ and is on track to meet this target².

Under the leadership of Prime Minister Narendra Modi, the Government of India (GoI) has initiated an integrated energy assessment to support Bharat's ambition of providing affordable electricity and clean cooking to everyone, ensuring energy security, and transitioning to renewable energy in a cost-efficient and sustainable manner. The GoI has undertaken progressive and ambitious policies and implementation efforts to electrify all sectors of the economy and provide green electricity. These policies and implementation efforts pave the way for Bharat to ensure energy security, transition, and universal and affordable energy access. The Prime Minister's Office and the NITI Aayog, in collaboration with various central and state ministries and departments, work

collaboratively to set a roadmap towards achieving these shared goals.

This paper highlights the progress made in the two terms of the Modi led NDA government to ensure Bharat's energy security, energy transition, and universal and affordable energy access. The paper reviews the progress made regarding the push for renewable energy and decarbonisation to achieve these three policy objectives.

Overall Progress

According to the GoI sources³, Bharat has added around 109 GW of RE capacity (excluding large hydro) during the last 10 years. Compared to capacity as of January 1, 2014, it reached over four times the total RE capacity, 31 times solar, and 2.2 times wind during the last 10 years. Bharat has also made significant progress in increasing access to electricity over the past decade. Almost all households in India now have access to electricity, and the distribution network has been strengthened throughout the country.

Projections from the 20th Electric Power Survey (EPS)⁴ indicate a total installed capacity of 777.14 GW by 2029-30, with significant contributions from solar (292.56 GW), wind (99.85 GW), hydro (99.89 GW), small hydro (5.3 GW), and biomass (14.5 GW). These non-fossil fuel

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sources are expected to account for over 50% of the total installed capacity and contribute around 44% of the gross electricity generation during 2029-30⁵ indicating Bharat's steadfast commitment to a more sustainable energy landscape.

Renewable Energy Expansion and Decarbonisation Scorecard

Bharat aims to reduce its GDP emission intensity by 45% by 2030.⁶ Currently, thermal power plants, which produce over 50% of Bharat's total electricity output, account for one-third of the total GHG emissions.⁷ As Bharat strives to meet its renewable energy expansion and decarbonisation goals, the electricity sector has embraced a diversification strategy by transitioning to cleaner energy sources such as solar, wind, bio, hydro, and atomic power.

State-nodal agencies in Bharat have gained significant expertise in renewable energy initiatives over the years. To facilitate mutual learning and the exchange of best practices, the Ministry of New and Renewable Energy (MNRE) established the Association of Renewable Energy Agencies of States (AREAS). The association comprises three standing committees: Technology and Resource Assessment, Policy and Finance, and IT. Policy initiatives like production-linked incentives and domestic content requirements will boost domestic manufacturing. Innovative regulatory support has addressed investment and counterparty risks and spurred demand.⁸ At the same time, record-low solar tariffs and long-term power purchase agreements continue to draw billions of dollars in investment.⁹

Policies and programmes to ramp up

renewable energy and decarbonisation solutions that have been launched and implemented since 2014 are as follows:

- Electricity (Rights of Consumers) Amendment Rules, 2023:
- Electricity (Late Payment Surcharge and Related Matters) Rules, 2022:
- Ujwal DISCOM Assurance Yojana (UDAY), 2015:
- Revamped Distribution Sector Scheme (RDSS), 2021:
- Green Energy Open Access Rules, 2022:
- Green Credit Programme, 2023, and Energy Conservation (Amendment) Act, 2022:
- Financial incentives for power sector reform.

Wind Energy

Bharat has made great strides in increasing its wind power capacity. As of June 2023, wind energy accounted for 34% of the total installed power generation capacity from renewable energy sources¹⁰. India now ranks as the fourth-largest market for onshore wind installations globally, with a 5% contribution to the world's total onshore wind installations¹¹. This sector has also generated approximately 50,000 jobs and hosts about 10% of the world's wind turbine component factories¹².

Bharat has a significant potential for both onshore and offshore wind energy. According to the India Energy Security Scenarios (IESS) 2047, wind energy is expected to contribute about 22.16 million metric tonnes of oil equivalent (Mtoe) to Bharat's total energy supply by 2032, up from 5.9 Mtoe in 2022¹³. The GoI has introduced policies to establish hybrid plants combining offshore and

solar wind technologies to promote renewable energy.

Policies and programmes that have been launched and implemented to ramp up wind energy are as follows:

- National Offshore Wind Energy Policy, 2015.
- National Wind and Solar Hybrid Policy, 2018.

Solar Energy

Bharat has made significant progress in solar energy in the past five years, positioning itself as a global leader. As of 2023, solar energy constitutes the largest portion (54%) of India's total renewable energy capacity. Bharat ranks fourth worldwide in photovoltaic (PV) deployment, with its solar capacity growing by around 200%, from about 21.5 GW in 2018 to approximately 64.3 GW in March 2023¹⁴. Bharat intends to derive 50% of its electricity capacity from non-fossil fuel sources by 2030, and solar energy will play a major role in achieving this. India's solar potential is about 750 GW, which could generate 3.2 million jobs and greatly benefit the economy¹⁵. Recent policy measures, such as production-linked incentives and regulatory support, have spurred domestic manufacturing, addressed risks, and boosted demand.

Through the International Solar Alliance (ISA)¹⁶, the GoI fosters global collaboration to accelerate grid interconnectivity, mobilise investment, and support deployment through capacity-building. Bharat must continue to engage global partners and emerge as a key contributor to driving and leading innovation in solar energy.

Domestic Solar Manufacturing

Bharat has also recently made tremendous progress in expanding its domestic solar manufacturing capabilities. Its potential for manufacturing photovoltaic (PV) modules doubled between 2020 and 2023. Bharat is expected to see a fourfold increase in its solar module manufacturing capacity by 2025 compared to 2021¹⁷. Furthermore, projections indicate that Bharat will achieve self-sufficiency in meeting the demand for PV modules by 2026, thanks to a projected manufacturing capacity of 110 GW¹⁸. Some of Bharat's major players in the PV manufacturing industry include Waaree, Adani Solar, and Vikram Solar.

Several policies and programmes to ramp up solar energy that have been launched and implemented in the two terms of the Modi government are as follows:

- Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM KUSUM), 2019.
- GoI had offered financial incentives to support the manufacturing of solar panels.
- PM Solar Rooftop Scheme 2024.

Green Hydrogen

Green hydrogen (GH₂) energy is a new development in Bharat. Green hydrogen is produced using renewable energy sources such as solar, wind, or biomass. Bharat consumes about 5 million metric tonnes (MMT)¹⁹ of hydrogen annually, most of which is produced using fossil fuels like natural gas and naphtha. The demand for hydrogen mainly comes from the industrial sector, which uses it for petroleum refining, fertiliser production, methanol, and metal production.

Green hydrogen can potentially provide low-carbon and self-sufficient economic pathways for Bharat. The country has ample renewable resources, particularly solar and wind energy, highlighting the promising potential for green hydrogen growth. The GoI is increasingly focusing on this sector, and the National Green Hydrogen Mission was launched in 2021 to make Bharat a global hub for producing, using, and exporting green hydrogen. The efforts under this mission are expected to create around six lakh jobs by 2030²⁰. NITI Aayog has prepared a comprehensive roadmap to guide the country's GH2 strategy and enhance private sector investment²¹.

Several policies and programmes to ramp up green hydrogen that have been launched and implemented in the past decade are as follows:

- National Green Hydrogen Mission, 2023.
- Green Hydrogen Standards for India 2023.
- GoI has offered financial incentives to support the manufacturing of electrolyzers.

Bioenergy

Bioenergy is a type of renewable energy generated from biomass and feedstocks. These include agricultural residues, forestry residues, animal waste, and organic municipal solid waste. As of 2023, bioenergy (biomass power and co-generation) accounts for 2.5% of the total installed energy capacity and 6% of the renewable energy mix²². In Bharat, approximately 32% of the country's primary energy comes from biomass, and over 70% of the population relies on it for their energy needs²³. The bioenergy power generation capacity currently stands at around 10 GW²⁴, with over 800 biomass power, bagasse cogeneration,

and non-bagasse cogeneration projects established. According to the India Energy Security Scenarios (IESS) by the NITI Aayog, bioenergy is projected to contribute around 29 terawatt hours (TWh) to the electricity supply in 2047.

At the central level, the National Bioenergy Programme and National Policy on Bio-Fuels are the major policies that the Ministry of New and Renewable Energy implements to boost bioenergy production and achieve ethanol blending targets in gasoline. In addition to these policies, a range of additional initiatives have been undertaken by the central government to support the development of BioCNG plants.²⁵

Policies and programmes to ramp up bioenergy solutions that have been launched and implemented are as follows:

- National Bioenergy Programme, 2022.
- (Amended) National Policy on Bio-Fuels, 2022.
- Sustainable Alternative Towards Affordable Transportation (SATAT) initiative aims to boost the uptake of compressed biogas (CBG).
- Galvanising Organic Bio-Agro Resources Dhan (GOBARdhan).

Storage Solutions

Energy storage technologies have become increasingly important in Bharat, primarily due to the growing focus on integrating renewable energy into the national energy mix. The expansion of renewable energy sources such as solar and wind presents the challenge of efficiently managing grid stability as they are intermittent. Energy storage plays a crucial role in optimising energy systems

by enabling the storage of electricity for later use. Energy storage technologies, including pumped storage hydropower (PSH), and batteries, have become crucial to ensuring a reliable and resilient energy grid. This technology serves various applications, such as grid-level balancing for renewables, electronics, behind-the-metre (BTM) power backup inverters, and supporting the EV sector.

Various energy storage options, such as batteries and PSH plants, are available for commercial use. Additionally, emerging technologies such as flywheels, supercapacitors, and hydrogen offer promising potential. Currently, Bharat has a total energy storage capacity of 4745.60 MW from PSH projects and 39.12 MWh from battery energy storage systems²⁶. In 2018²⁷, the demand for energy storage was 23 GWh, but it is expected to grow exponentially. The energy storage market in Bharat has a combined potential of 190 GWh during 2019-25²⁸, driven by renewable energy integration, the fast response ancillary services (FRAS) market, and transmission and distribution deferral. The electric vehicle (EV) industry will consume more than 36 GWh of batteries by 2025²⁹.

Boosting Domestic Manufacturing of Batteries

A domestic battery manufacturing ecosystem with elements like a robust supply chain of cells will be crucial for Bharat to gain an edge in mobility, grid energy storage, and consumer electronics. This will help reduce import costs of lithium-ion cells, which have increased sevenfold between 2014 and 2020, safeguard against potential supply shocks,

and create new jobs. Further, there are opportunities for private players to invest in this sector through arrangements like government partnerships, which enable risk-sharing. The government has already started providing incentives for manufacturers through the PLI scheme approved in 2021.¹³

Policies and programmes to ramp up energy storage solutions that have been launched and implemented are as follows:

- National Energy Storage Mission: In 2018.
- Battery Waste Management Rules in 2022.
- National Programme on Advanced Chemistry Cell (ACC) Battery Storage.
- National Mission on Transformative Mobility and Battery Storage.
- National Mission on Transformative Mobility and Battery Storage.
- National Mission for Enhanced Energy Efficiency, 2021.
- GoI has offered financial incentives to support the manufacturing of solar batteries and related equipment.

Emerging Technologies

New and upcoming technologies in the energy sector are providing exciting opportunities for sustainable and eco-friendly energy sources. The Ministry of New and Renewable Energy (MNRE) is currently focusing on four new technologies—ocean energy, geothermal energy, hydrogen energy, and energy storage—to promote research and industrial development in Bharat. Progress on green hydrogen and storage technologies has been covered above in this paper. Ocean energy and geothermal energy are still in the early stages of

development and are largely focused on exploration. Geothermal energy sources are sustainable and offer a consistent source of clean energy by tapping into the earth's core heat, while ocean energy sources use the power of waves, tides, and temperature differences to generate electricity.

Negative Emission Technologies

Negative emission technologies (NETs) refer to innovative approaches and technologies that actively remove greenhouse gases—usually carbon dioxide—from the atmosphere. The process is referred to as carbon dioxide removal (CDR) if it involves removing carbon dioxide, or more broadly, as greenhouse gas removal (GGR) if it involves removing gases other than CO₂. CDR approaches involve capturing and storing CO₂ or converting it into useful products, such as via afforestation and reforestation, soil carbon sequestration, bioenergy with carbon capture and storage (BECCS), and direct air capture and carbon capture, utilisation, and storage (CCUS). NETs have the potential to play a crucial role in decarbonising energy-intensive sectors such as electricity, mining, and steel. CCUS is presently the only recognised technology capable of reducing carbon emissions in CO₂-intensive and hard-to-electrify sectors such as heavy industries, including steel, cement, oil & gas, petrochemicals & chemicals, and fertilisers.³⁰ Bharat plans to capture 750 mtpa of CO₂ via CCUS technologies by 2050, which makes up 30% of all capturable emissions of 2400 mtpa.³¹ Thus, there is a growing interest in negative emission technologies, mainly CCUS, in Bharat as part of the nation's efforts to combat climate change and decrease greenhouse

gas emissions in the energy sector.³² One of Bharat's first CCUS projects is being led by Indian Oil Corporation Ltd. (IOCL) and Oil and Natural Gas Corporation (ONGC), who are setting up Bharat's first large-scale carbon capture project in Gujarat.³³ The project involves capturing CO₂ at the IOCL refinery, compressing it, and transporting it through pipelines to ONGC's oil fields for enhanced oil recovery (EOR), leading to increased oil production while ensuring the permanent storage of CO₂.

Policies for NETs are still in their early development stages; however, several guiding frameworks can be leveraged to support Bharat's decarbonisation efforts:

Draft 2030 Roadmap for Carbon Capture Utilisation and Storage (CCUS) for Upstream E&P Companies, 2022³⁴:

CCUS Policy Framework and its Deployment Mechanism in India, 2021.³⁵

Conclusion

The enabling policies and implementation support for renewable energy expansion and decarbonisation efforts over the last decade have been unprecedented in terms of their scale, speed, and reach. Overall, the Modi led NDA government scores an A+ scorecard. As it plans for its third term, reforms to improve the financial health of electricity distribution companies, a continued push for domestic manufacturing of renewable energy components, enhancing access to green finance, enabling policies for scaling up private sector investments, and strengthening the capacity of government functionaries should remain priorities to realise the aims and objectives of Viksit Bharat.

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Digital Leadership for a *Viksit Bharat* 2047: Fostering Innovation, Shaping Tomorrow

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In an increasingly interconnected world, digital inclusion has emerged as a cornerstone of development strategies. Digital India's overarching goal of transforming the nation into a digitally empowered society and knowledge economy has yielded significant outcomes over the past decade, since the Indian government launched the ambitious "Digital India" programme in 2015. One of the most notable achievements has been the reduction of the digital divide between urban and rural areas and connecting the unconnected. Through infrastructure development initiatives like the BharatNet project, which aims to connect every gram panchayat with high-speed internet, connecting over 250,000 gram panchayats (village councils) with high-speed internet. The government, through consistent efforts and successful collaborative partnerships, has hugely bridged the digital divide, enabling millions of rural Indians to access the internet for communication, education, and livelihood opportunities. This large-scale project, when completed, will connect over 630,000 inhabited villages in India, further bridging the digital gap between urban and rural communities.

Furthermore, the past decade has witnessed a revolution in the availability of smartphones and data plans, leading to a remarkable increase in internet penetration in India. With 850 million

broadband users as of July 2023, representing a 250% growth since 2015, India has experienced the fastest growth in internet users globally. The average monthly data consumption per user reached 19.5 GB in 2022, with monthly mobile data usage soaring from 4.5 exabytes in 2018 to 14.4 exabytes in 2022. This exponential growth is expected to continue, with projections indicating a quadrupling of data consumption by 2024, driven by the impending implementation of 5G technology and India's topping global data consumption in the next five years.

Moreover, the past decade has witnessed a concerted push towards leveraging emerging technologies to address complex societal challenges (Niti Aayog, 2018). The National Strategy for Artificial Intelligence, unveiled by Niti Aayog in 2018, outlines a comprehensive roadmap for harnessing the potential of AI across various sectors, including healthcare, agriculture, and education. With a steadfast commitment to technological development and advancement, the government has embarked on a journey that has led to the economic, technological, and entrepreneurial transformation of the nation. From bolstering digital infrastructure to fostering innovation hubs, the government's policies have propelled India into the forefront of the global innovation landscape.

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Furthermore, the government's emphasis on promoting indigenous manufacturing through initiatives like "Make in India" has bolstered India's position as a manufacturing powerhouse (Press Information Bureau, 2014). By incentivising domestic production of electronics, automobiles, and other critical sectors, the government has not only spurred economic growth but also catalysed technology transfer and skill development. The success of initiatives such as the Production Linked Incentive (PLI) scheme underscores India's growing prowess in manufacturing, attracting investments, and creating employment opportunities on a massive scale (Niti Aayog, "Production Linked Incentive Scheme"). A recent media report has pegged India's electronic manufacturing industry to show growth upwards of over 40% annually until FY 26, with the market expecting to reach Rs 5,980 billion. A combination of factors have led to this, which include geopolitical shifts, the government's progressive and concerted policy efforts to spur electronics manufacturing in India, the presence of a skilled workforce, which includes highly trained engineering talent, the availability of land and water, a stable responsive government with enhanced ease of doing business, and a clear focus on job creation, upping the value chain to make India the hub of a technology creator for technologies.

In addition to fostering technological innovation, the Modi government has prioritised the development of robust regulatory frameworks to navigate the complexities of the digital age. From enacting data protection laws to strengthening cybersecurity infrastructure, the government has demonstrated a proactive approach to safeguarding

citizens' privacy and securing critical digital assets. Not only is India now in the right rooms, it is now at the table and shaping the discourse, actively seeking accountability and greater transparency and equity in both future and emerging technology as well.

Moreover, Digital India, coupled with the JAM trinity, which includes Jan Dhan, Mobile, and Aadhar, has completely revolutionised governance by leveraging technology to improve openness, effectiveness, and public involvement in the delivery of government services. Digital platforms like DigiLocker, e-Hospital, and e-Government Procurement (GeM) have streamlined processes, reduced red tape, and increased access to essential services for citizens, raising the bar for minimum government and maximum governance. The impact of these initiatives is evident in the significant increase in e-transactions related to government services, which exceeded USD 3 billion in the fiscal year 2021 alone. By embracing digital governance, India has made substantial strides towards enhancing transparency, efficiency, and citizen-centric governance.

Additionally, Digital India has placed a strong emphasis on digital literacy and skill development, particularly in rural areas. Programmes like the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) have empowered millions of people with crucial digital skills, enabling them to participate actively in the digital economy. The National Digital Literacy Mission (NDLM) and Skill India have further strengthened India's workforce by providing training in cutting-edge technologies and promoting entrepreneurship. By equipping citizens with digital skills, India is not

only fostering economic growth but also empowering individuals to contribute meaningfully to the digital revolution.

To confine the ambit of this discourse, our focal lens shall primarily scrutinise digital transformation and its symbiotic relationship with economic ascension. The performance of the current government at the centre over the last ten years can be summarised under five broad themes: **economic growth, digital infrastructure, digital India, entrepreneurship and innovation, and emerging technologies.**

Economic Growth

India has experienced a period of unprecedented economic growth since 2014, achieving remarkable milestones along the way. The exponential growth has been witnessed across

various economic indicators, propelling India to new heights and firmly establishing its position as a global economic powerhouse. India's economic growth has been labelled "stable and resilient," with an 8% growth rate a real possibility in the near future (Gupta and Blum, 2018).

One of the most striking achievements during this period has been the jump from the 11th largest to the 5th largest economy in the world (Armstrong, 2022). The significant expansion of India's Gross Domestic Product (GDP) reflects robust economic performance and sustained momentum. Since 2014, India's GDP has surged, far surpassing the growth rates of previous years and outstripping initial projections (see table below). This growth trajectory has not only propelled India's economy forward but has also positioned it as one of the fastest-growing major economies in the world.



Figure 1: Indian GDP by year: 2006 to 2022 (source: World Bank)

India surpassing the United Kingdom to become the fifth-largest economy globally highlighted India's growing economic prowess and resilience (World Bank, 2024). This underscored India's emergence as a key player on the world stage, with significant implications for global trade, investment, and geopolitics.

The government's bold economic reforms and policy initiatives have played a crucial role in driving India's economic transformation. From the implementation of landmark reforms such as the Goods and Services Tax (GST) to the promotion of ease of doing business, the government's proactive approach has fostered a conducive environment for investment, entrepreneurship, and innovation. These reforms have not only streamlined the tax system and eliminated barriers to trade but have also enhanced India's attractiveness as a destination for foreign investment (PTI, 2024).

Moreover, India's economic growth has been accompanied by significant improvements in key socio-economic indicators, reflecting the government's focus on inclusive development and poverty alleviation. The average income of people has witnessed a substantial increase, lifting millions out of poverty and enhancing their quality of life. More than 400 million people were lifted out of poverty in the last 15 years (Pandit, 2023). Even in 2023, India was leading salary growth projections in APAC (Majumdar, 2024). Additionally, initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY) have promoted financial inclusion, ensuring that even the most marginalised segments of society have access to banking services and financial resources (PTI, 2023). Under the scheme,

55.5% of bank accounts were opened by women, while 67% of the accounts were opened in rural or semi-urban areas (*ibid.*).

India's exponential economic growth firmly points to the nation's resilience, dynamism, and potential, especially in a post COVID world. From surpassing previous growth records to ascending the global economic rankings, India's journey over the past decade has been remarkable.

Digital Public Infrastructure (DPI)

Digital Public Infrastructure (DPI) is a transformative concept championed by India on the global stage, notably recognized in G20 deliberations by global ministers as an accelerator of global goals (UNDP, 2023). For the first time, a global coalition of twenty jurisdictions acknowledged the significance of DPI, offered a functional definition, and outlined specific guidelines and methods that may be taken into account during its creation and implementation (Chaudhuri, 2023).

DPI encompasses essential initiatives like digital identification (Aadhaar) and payment infrastructure (UPI). It embodies a transformative approach driving innovation, inclusion, and competition at scale, under open, transparent, and participatory governance. It mirrors foundational systems like the internet and telecom, ensuring global information exchange and interoperability. Simply put, DPI is a set of technology building blocks fostering digital advancement and societal progress that is going to be one of the key elements in driving India towards a USD 1 trillion digital economy by 2030 (Economic Times, 2024).

India's journey with technology in the public domain traces back to the '80s and '90s, marked

by disparate applications. Subsequently, infrastructure projects like state-wide area networks, Common Service Centres (CSCs), and State Data Centres (SDCs) were initiated, alongside Mission Mode Projects (MMPs), laying the groundwork for comprehensive digital infrastructure.

The inception of Aadhaar, a unique digital ID project, marked a pivotal moment in India's digital journey. Aadhaar, offering authentication as a service, revolutionised service delivery by enabling identity verification for various transactions. Aadhaar's success led to the development of complementary products like Digital Locker, eKYC, and e-Sign, along with the initiation of Direct Benefit Transfers (DBT), resulting in substantial government savings and efficiency gains.

A holistic understanding of DPI entails recognising its three integral layers: **market**, **governance**, and **technology standards**. The market layer fosters innovation through inclusive product design, while the governance layer establishes legal frameworks and public programmes to drive adoption. Technology standards, including those for identity, payments, and data sharing, ensure interoperability and the adoption of shared standards, defining DPI's structure and functionality.

DPI strikes a balance between all-government and all-private approaches, leveraging public authority to manage frequently required services and components efficiently. By developing open protocols, shared platforms, and enabling policies, DPI creates an interoperable ecosystem, facilitating the integration of private sector innovations while ensuring public accountability and service delivery.

Security remains paramount in DPI, necessitating the establishment of secure pipelines for accessing services and robust frameworks for authentication and certification. The Aadhaar experience offers valuable insights into ensuring the safety of both infrastructure and applications. Scalability is inherent in DPI, reducing development costs and fostering a vibrant ecosystem of diverse applications.

India's DPI success stories include Aadhaar, UPI, and CoWin, the backbone of the world's largest vaccination program. Initiatives like the Unified Health Interface (UHI), the Ayushman Bharat Digital Mission (ABDM), and PM-WANI (providing affordable internet connectivity) reflect India's commitment to leveraging DPI for societal benefit and inclusive growth.

India's approach to DPI embodies scalability, interoperability, innovation, and frugality, setting a precedent for a digitally inclusive future. These are good case studies that can be replicated at scale, especially by developing countries, emerging economies, small island states, and even landlocked nations. More than a technological advancement, DPI represents a vision for societal transformation and inclusion that resonates globally. The India story of DPI serves as a testament to the nation's dedication to harnessing technology for the greater good, inspiring nations worldwide to follow suit in fostering digital progress and inclusion.

Digital India

Launched in 2015, the Digital India programme encompasses a wide array of initiatives spanning various sectors, including infrastructure development, e-governance, digital literacy, and

digital empowerment. With the vision of transforming the nation into a digitally empowered society and knowledge economy, the programme seeks to provide citizens with access to digital services, enhance efficiency and transparency in government processes, and promote digital inclusion across all sections of society.

The Digital India programme rests on several key pillars, each addressing specific aspects of India's digital transformation: broadband highways, universal access to mobile connectivity, a public internet access programme, E-governance and service delivery, digital literacy, digital infrastructure, and the digital empowerment of citizens. Since its inception, the Digital India programme has made significant strides in advancing India's digital transformation agenda.

1. Reducing the Digital Divide: By increasing internet connectivity, Digital India has significantly contributed to the reduction of the digital divide between urban and rural areas. According to the most recent data sets available, infrastructure development—best demonstrated by the BharatNet project—has made broadband connections possible for over 1,72,000 village panchayats, enabling millions of rural Indians to use the internet for communication, education, and livelihood. When finished, this large-scale project would connect every 250,000 local gram panchayats, or 630,000 inhabited villages in India, to the internet, enabling access to ICTs through Community Development Blocks (CDB).

2. The Data Revolution: In the last ten years, India has seen a revolution in the availability of reasonably priced smartphones and data plans. With 850 million broadband users as of July 2023,

the nation has experienced the fastest growth in the globe, up roughly 250% from 2015. The average monthly data consumption per user in 2022 was 19.5 GB, while the monthly mobile data usage throughout India increased from 4.5 exabytes in 2018 to 14.4 exabytes in 2022. This is anticipated to quadruple by 2024 as a result of the implementation of 5G.

3. Digital Payments: As a result of the Digital India initiative, there has been a notable change in the digital payments market. The adoption of systems such as the Unified Payments Interface (UPI) has transformed financial transactions and service delivery, with over 82 billion digital transactions in 2023 alone. UPI transactions exceeded INR 14.3 trillion in a single month, surpassing the total value of all digital transactions in the entire fiscal year of 2015.

4. Digital Governance and Service Delivery: Digital India has revolutionised government by utilising technology to improve openness, effectiveness, and public involvement in the process of providing services. Technology-infused government procedures have improved service delivery and enabled citizen-centric governance. Platforms like DigiLocker, e-Hospital, and e-Government Procurement (GeM) have streamlined processes, cut red tape, and opened up access to necessary services for everyone. The impact of the programme was demonstrated by the fact that e-transactions pertaining to government services exceeded \$3 billion in FY 2021 alone.

5. Workforce Reforms and Digital Skills: Digital literacy and skill development programmes are given a lot of attention in Digital India. Millions of people, particularly in rural regions, have been

empowered with crucial digital skills through programmes like the *Pradhan Mantri Gramin Digital Saksharta Abhiyan* (PMGDISHA), allowing them to actively participate in the digital economy. The country's workforce has been further reinforced by the National Digital Literacy Mission (NDLM) and Skill India, which offer training in cutting-edge technology and promote entrepreneurs hip.

6. Financial Inclusion: Through the JAM trinity, the Digital India Programme has been instrumental in advancing financial inclusion in India. The Pradhan Mantri Jan Dhan Yojana, among other initiatives, has ensured that financial services are accessible to the poorest citizens.

Entrepreneurship and Innovation

India's innovation ecosystem has witnessed significant growth in recent years, propelled by government initiatives and private sector participation. India is home to the third-largest startup ecosystem globally, with over 1.26 lakh startups across various sectors (Inc. 42, 2024). The government's Startup India initiative has played a pivotal role in nurturing this ecosystem, providing startups with access to funding, mentorship, and regulatory support.

Startup India: The Startup India initiative, launched in 2016, has yielded promising results, with over 1.26 lakh startups recognised by the Department for Promotion of Industry and Internal Trade (DPIIT) and over \$110 billion in investments raised by startups since its inception (Startup India, 2020; Inc42, 2024). The initiative offers various incentives, including tax exemptions, self-certification compliance, and faster patent

examination, aimed at fostering a conducive environment for startups to thrive and innovate.

Atal Innovation Mission (AIM): The Atal Innovation Mission (AIM) has been instrumental in promoting innovation and entrepreneurship among students and educators. As of 2021, AIM has established over 10,000 Atal Tinkering Labs (ATLs) in schools across 35 states and union territories of India, providing over 4 million students with hands-on experience in tinkering and innovation (Jogi, 2023). Additionally, AIM's Atal Incubation Centres (AICs) have supported over 2,000 startups, facilitating their growth and scale-up.

Research and Development (R&D) Initiatives: Investments in research and development (R&D) are crucial for driving innovation and technological advancement. India's R&D expenditure has been steadily increasing, reaching approximately \$70 billion in 2020 (World Bank, 2021). Government initiatives such as the Department of Science and Technology's Technology Development Board (TDB) and the Council of Scientific and Industrial Research (CSIR) have been instrumental in funding and supporting R&D projects across various sectors.

Digital Innovation Hubs: Digital innovation hubs serve as collaborative spaces for startups, corporates, and investors to ideate, innovate, and co-create solutions. The Indian government's Digital India programme has supported the establishment of over 200 incubators and accelerators, providing startups with access to infrastructure, mentorship, and funding (Digital India, 2020). These hubs have played a crucial role in fostering entrepreneurship and driving innovation across sectors.

Impact on Economic Growth: The impact of innovation and entrepreneurship on economic growth is evident in India's startup ecosystem's rapid expansion. According to the Economic Survey (2021), the contribution of startups to India's

GDP is expected to increase from 0.5% in 2020 to 3.5% by 2025. By 2030, Indian startups would be contributing USD 1 trillion to the Indian economy (Aggarwal, 2024).

Startups have also been significant contributors

Contribution of Indian startups to Indian Economy

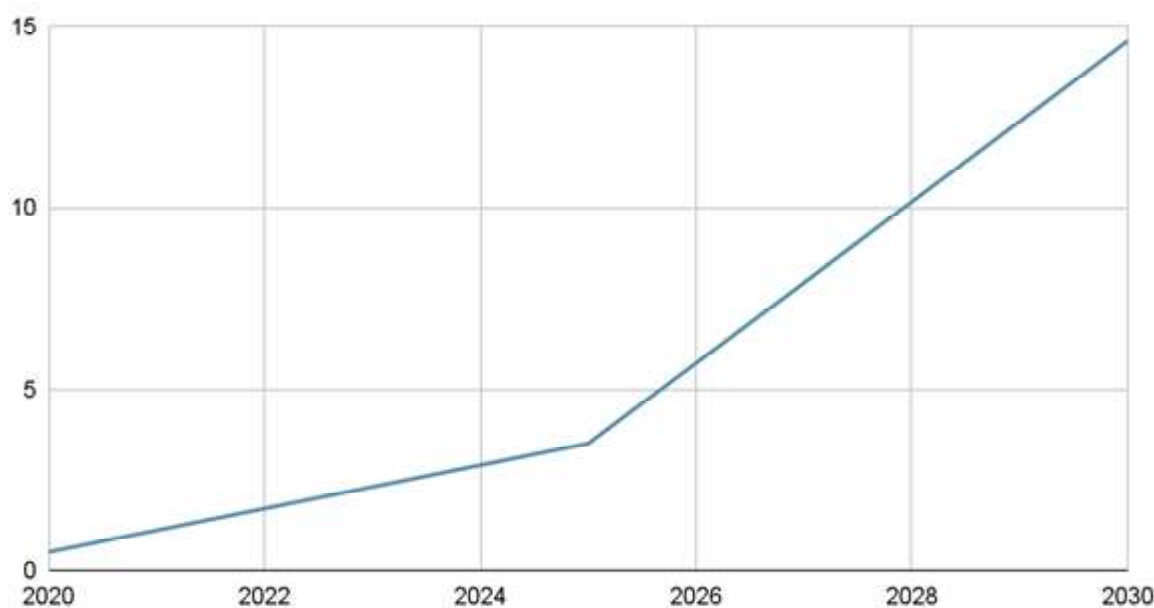


Figure 2: Contribution of startups to Indian economy from 2020 to 2030

to job creation, with over 500,000 direct jobs created by startups in 2020 alone (NASSCOM, 2020) and a total of 12.42 lakh jobs by 2023 (PIB, 2024). In the year 2022, when the world was experiencing a funding crisis, startups in India attracted funding of over USD 42 billion. The number of DPIIT-recognised startups in India was 1,26,392 as of April 10, 2024, across 763 districts of the country, as per Invest India.

Challenges and Opportunities: Despite significant progress, some challenges still remain, which include access to funding, regulatory hurdles

as law always plays catch-up where disruptive industries are concerned, and talent acquisition and retention as potential employees seek tried and tested stable organisations. According to a survey by the Confederation of Indian Industry (CII), access to early-stage funding remains a primary challenge for startups, with over 60% of startups citing it as a significant barrier (CII, 2021). Addressing these challenges requires concerted efforts from policymakers, industry stakeholders, and academia to create an enabling environment for innovation and entrepreneurship to thrive.

Emerging Technologies

Democratising the Internet: The data revolution in India has been accelerated by government measures to improve digital access, especially in rural and isolated areas. The government sought to close the digital gap and give every citizen access to reasonably priced internet service through initiatives like Digital India and BharatNet. Because of the low cost of data plans, millions of Indians were able to access the internet, leading to a notable growth in internet penetration in the country. The data revolution was made possible by the democratisation of internet access, which made it possible for people and organisations to use data for a range of objectives, including government, commerce, and education.

Data Analysis: Leveraging data as a strategic asset to drive innovation and decision-making has been made possible in large part by the government's focus on developing data analytics capabilities. The goal of initiatives like the National Data Analytics Portal (NDAP) and the National Data Sharing and Accessibility Policy (NDSAP) was to make government data more easily accessible for public service delivery, research, and innovation. These initiatives, which offer a centralised platform for data analytics and encourage cross-sector data exchange, have made it possible to build data-driven solutions to tackle complicated problems in fields like urban planning, healthcare, and agriculture.

Edge computing and quantum computing: These have the potential to be revolutionary technologies, and the government, led by the Ministry of IT and Electronics, has moved to support research and development in these fields.

The goal of the National Mission on Quantum Technologies and Applications, as well as programmes like the Quantum Computing Applications Lab (QCAL), is to expedite the development of quantum computing applications and research. Analogously, initiatives to advance edge computing infrastructure—like the Edge Computing Initiative—have aimed to maximise edge computing's potential to improve digital services' effectiveness and performance, especially in places with poor connections.

AI and machine learning: These have become major forces behind innovation and economic growth, and the government has been instrumental in encouraging these technologies' use and advancement. Under the National AI Mission, the Cabinet has approved an allocation of over Rs 10,300 crore for the IndiaAI Mission, marking a significant step towards bolstering India's AI ecosystem (PIB, 2024a). To be deployed over the next five years, this financial outlay will support initiatives like the IndiaAI Compute Capacity, IndiaAI Innovation Centre (IAIC), IndiaAI Datasets Platform, IndiaAI Application Development Initiative, IndiaAI FutureSkills, IndiaAI Startup Financing, and Safe & Trusted AI (*ibid.*). With the Ministry of IT laying special emphasis on the IndiaAI Compute Capacity, which aims to erect a cutting-edge, scalable AI computing infrastructure by deploying over 10,000 Graphics Processing Units (GPUs) through strategic public-private collaborations. Also notable is the IndiaAI Innovation Centre (IAIC), which will emerge as a leading academic institution, ensuring streamlined implementation and retention of top research talent for the country. The IndiaAI Mission comes with

a very comprehensive vision, and together, these initiatives aim to bolster India's global leadership in AI, foster technological self-reliance, and ensure ethical and responsible AI deployment. One of the key concerns around global models has been the availability of local data sets and Indian nuances and cultural contexts. The IndiaAI Datasets Platform, will be developed by the Independent Business Division (IBD) of IndiaAI and will aim to democratise the benefits of AI across all strata of society, practising true Antodaya, serving even the last mile, and leaving no one behind (*ibid.*). AI is being labelled the world over as the biggest disruptor, and India will achieve a level playing field by ensuring that both in practice and policy it is able to usher in a paradigm shift.

The goal of initiatives like the AI for All programme and the National AI Strategy is to promote the adoption, development, and research of AI technology across a variety of industries. The government has aided in the development of AI firms and ecosystems by offering capital, infrastructure, and policy support. This has spurred innovation in sectors like cybersecurity, agriculture, and healthcare as well.

AI's global market size by 2030 will be over USD 1812 billion, and by 2035, it is projected that AI will contribute approximately USD 967 billion to the Indian economy. By 2025, it is estimated to add around USD 500 billion to the nation's gross domestic product (GDP), constituting about 10% of the country's aim to achieve a USD 5 trillion GDP (Indian Express, 2023). There is potential to add USD 359 to 438 billion to India's GDP on account of Gen AI adoption in 2029-30, over and above its baseline estimates (EY Report, 2023).

For a country like India, AI has vast use cases across agritech, healthtech, fintech, edtech, manufacturing, and SMBs and can vastly add value to our engineering talent, marrying India's unique strengths of culture, content, and creativity. It's a visionary leader defining the path ahead to challenging technology that works for good.

Viksit Bharat 2047: Vision and Way Forward

With a clear focus on realising the vision of a "Viksit Bharat" (developed India) by 2047, the government has laid out a comprehensive plan aimed at empowering citizens and fostering a sustainable economy. This section outlines the key pillars and strategies envisioned to achieve this ambitious goal.

The empowerment of citizens via social welfare programmes, skill development, and education is at the core of the Viksit Bharat goal. In order to produce a qualified workforce that can spur innovation and productivity, the government wants to guarantee that everyone has access to high-quality healthcare and education. Targeted interventions will also be implemented to promote inclusive growth and development by bridging socioeconomic gaps and elevating marginalised communities.

The creation of a sustainable economy that strikes a balance between social justice, environmental preservation, and economic growth is essential to the Viksit Bharat ideal. To reduce climate change and increase resilience to environmental issues, the government will give green infrastructure, renewable energy, and sustainable agricultural methods a priority. Efforts

will be made to promote responsible consumption and production patterns, ensuring the efficient use of resources and minimising environmental impact. The recent initiatives like the PM SuryaGhar Yojana, which subsidises and promotes individual rooftop solar connections, have not just seen a massive surge in registrations, but have also led to a bottom-up movement about green and clean energy amongst the citizens, where all stakeholders, including startups, are pitching in to do their bit.

India's ability to use innovation and technology to its advantage will determine how developed the country becomes. In terms of cutting-edge technologies like artificial intelligence, quantum computing, and space exploration, India is envisioned as a worldwide leader under the Viksit Bharat vision. In order to achieve this goal, the government will fund R&D, encourage industry-academia cooperation, and establish an environment that is supportive of innovation and entrepreneurship.

India wants to increase its competitiveness in the global market and promote inclusive growth by utilising technology for social and economic transformation. Moving forward, putting the initiatives in the vision paper into practice and overcoming obstacles in the way of progress will require sustained engagement with the corporate sector, foreign partners, and civil society.

The Viksit Bharat vision, which is based on the ideas of empowerment, sustainability, and innovation, offers an ambitious and aspirational development blueprint for India. India is positioned to fulfil its potential as a developed country and become a major player in the world economy in the twenty-first century by investing in its people,

developing a sustainable economy, and embracing technology and teamwork.

Viksit Bharat with STRIDE

To achieve the Viksit Bharat dream, we will have to implement a STRIDE model of transformation. As senior stakeholders hold planning meetings for the next 100 day vision plan for the new government, the proposed model will be a good addition to take into 'stride'. Figure 3 depicts the STRIDE model as it would be applicable to India's vision of becoming a developed country. The model focuses on six priority pillars:

- **S: Startups:** There is a need for around 5 lakh innovative startups and supporting the growth of these startups will enable them to innovate and achieve their potential.
- **T: Technology and Innovation:** Emerging technology and innovation need to be leveraged to enhance productivity, efficiency, and competitiveness across industries.
- **R: Research and Development:** Investments will be required for research and development to foster innovation and advance scientific and technological capabilities. A fund of funds may provide a much-needed shot in the arm.
- **I: Infrastructure:** Pervasive world-class infrastructure will be needed to improve quality of life and deploy the best tech products and services.
- **D: Deployment and adoption:** Comprehensive implementation and widespread adoption of advanced solutions to transform industries and society will be

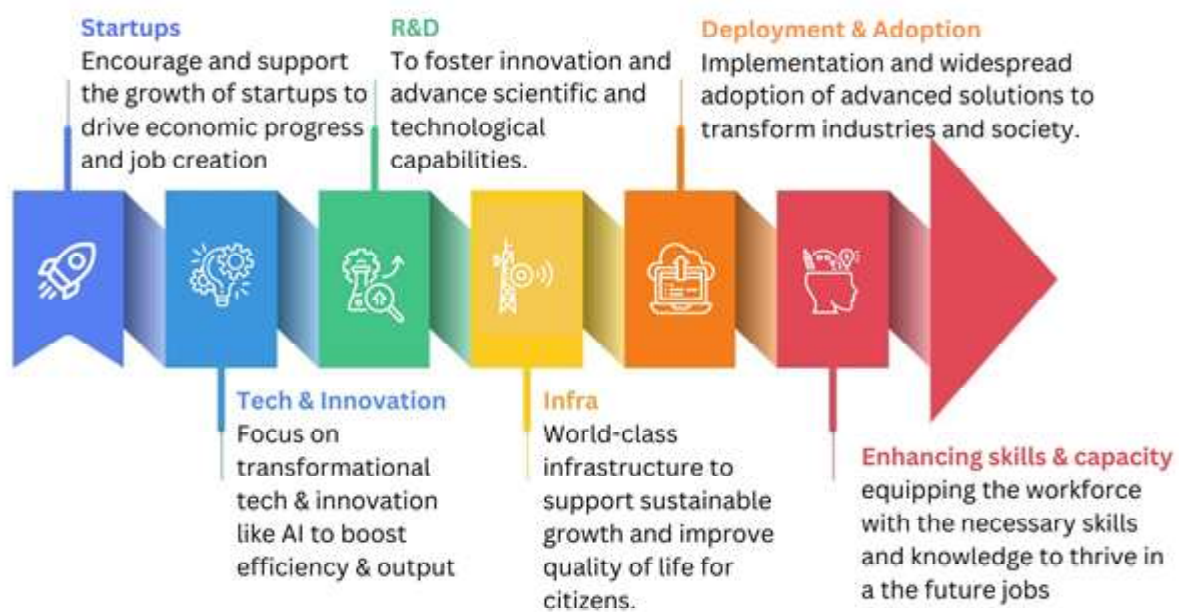


Figure 3: STRIDE model of transformation that will help India achieve the 2047 Viksit Bharat vision by Dr. Subi Chaturvedi

required.

- **E: Enhancing skills and capacity:** The workforce will need to be upskilled and trained to meet the requirements of jobs in the future.

In order to realise the goal of a Viksit Bharat by 2047, a comprehensive plan for revolutionary development is offered through the STRIDE model. By promoting both economic growth and the general well-being of our citizens, this integrated approach would pave the way for India's ascent

to prominence in the world economy by 2047, where both development and growth go hand in hand, taking inspiration and being propelled from the Prime Minister's *Panch Pran* which include, above all, throwing away the subservient, conformist mindset, asking the right questions, leaving the baggage from the past behind while learning from history, embracing tradition with modernity, and dreaming to our fullest potential while doing right by our nation, putting our fellow Indians first and our country above all.

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Managing the Energy Sector: Oil and Gas

Amit Bhandari*

The past decade has seen an economic transformation in India; from the tenth spot in 2013, India is now the fifth largest economy in the world. From USD 1.86 trillion in 2013, the Indian economy has grown to USD 3.73 trillion in 2023¹. The COVID-19 pandemic shock is now in the rear-view mirror, and the World Bank has projected strong GDP growth for 2024 and 2025². This growth can also be seen in metrics such as automobile sales, energy consumption, and other metrics.

India is now the third-largest consumer of oil and the only major consumer with growing demand. It is also projected to be the largest driver of global oil demand up to 2030 (IEA, Indian Oil Market Outlook 2030), from 5.5 million barrels per day at present to 6.6 million barrels per day. OPEC projects a much larger increase to 7.2 million barrels per day by 2030 (OPEC, World Oil Outlook 2023).

While a real manifestation of progress, India's growing oil consumption also represents a point of vulnerability. India imports over 87% of the oil that it consumes, and this dependence is set to increase going forward. During 2022-23, India imported a total of 233 million tonnes of oil and gas at a cost of USD 144 billion. Petroleum accounts for over 25% of India's entire import basket, and high oil prices are a perennial concern for Indian planners.

The oil shocks of the 1970s caused significant economic problems in India, and high oil prices in 1991 precipitated an economic crisis, forcing India to pledge its gold reserves. The price of oil is one metric that's continuously monitored by Indian policymakers. While the past decade has been one of moderate energy prices, there have been multiple shocks and disruptions. Managing these and benefitting from them can be seen as a key achievement of the Modi government in the oil and energy space.

Managing Sanctions

The Russia-Ukraine conflict has resulted in some of the most stringent economic sanctions being imposed on Russia by the West. European countries reduced their purchases of Russian oil and gas, instead buying oil from West Asia, pricing other consumers, such as India, out of the market. This resulted in a major commodity price shock; prices of energy commodities such as oil, natural gas, and food shot up in its aftermath. Russia is the world's second-largest oil exporter, and blocking Russian oil from the world market would result in an oil shock worse than 1973 or 1979. India increased its oil purchases from Russia, ignoring the ill-informed Western criticism at the time. The continued flow of Russian oil via India has been

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an important factor in keeping energy prices stable, benefitting India and the world.

Filling up India's Strategic Petroleum Reserves

The COVID-19 pandemic was also a major economic shock, and it briefly pushed petroleum prices into the negative in early 2020. Taking advantage of the low prices, India filled up its strategic petroleum reserves at the time—5.33 million tonnes, or about 9 days of oil consumption—saving Rs 5,000 crore in the process. The purpose of SPR is to help stabilise the market by mopping up excess supply and releasing oil when supplies are running short. Subsequently, India has also brought in the Abu Dhabi National Oil Company (Adnoc) as an investor in this reserve³. India plans to add another 9 million tonnes of storage capacity to the SPR.

Investments from Oil-Exporting Countries

Just as India needs secure oil supplies at an affordable price, oil exporters need access to markets such as India. India's importance to oil exporters such as Saudi Arabia, Russia, and the UAE has increased as they seek demand security. These countries are also trying to invest their oil wealth in non-energy sectors to diversify their income away from oil. Because of its strong growth, India is an increasingly attractive investment destination for oil rich countries. The Norwegian Sovereign Wealth Fund, the world's largest, has long been an investor in India with a portfolio of \$22 billion. In 2017, Russia's national oil company Rosneft acquired India's second-

largest petroleum refinery⁴. During 2020, Saudi Arabia's Public Investment Fund invested USD 1.5 billion in Jio Platforms⁵ and USD 1.3 billion in Reliance Retail⁶. News reports suggest that the sovereign wealth funds of Saudi Arabia and the UAE are both considering setting up offices in India.

Neighbourhood Connectivity

While India imports crude petroleum, it is also an important exporter of refined petroleum products such as diesel and petrol. India's immediate neighbours—Bangladesh, Sri Lanka, and Nepal—are all importers of petroleum products. In 2019, India completed its first cross-border oil pipeline, supplying petroleum products to Nepal⁷. The second such pipeline, with Bangladesh, was completed in 2023⁸. India is exploring a similar link with Sri Lanka. These pipelines add to the existing electricity trade that India has with Bhutan, Nepal, and Bangladesh, and can pave the way for a common energy market for South Asia.

The Way Forward

India is now one of the major factors in the world oil market; Indian oil demand is greater than that of Germany, France, and the UK combined. At a global level, demand is shifting from the West to Asia. Four of the top five importers of oil—China, India, Japan, and South Korea—are in Asia. The biggest exporters of oil—Saudi Arabia, Russia, and the United Arab Emirates—are also Asian. However, the price of oil is still set on Western exchanges (WTI and Brent), and oil continues to be traded in the US dollar. The benchmarks need

to reflect the changing patterns of energy trade and energy consumption.

China has tried to pitch its currency, the Yuan, as a medium of exchange and an alternative to the US Dollar. It is the largest buyer of Russian oil and a major buyer of other Russian commodities as well. The China-Russia commodity trade shifted to the Yuan during 2022-23, to avoid the impact of Western sanctions. China continues to trade with Iran, which is also heavily sanctioned, using the Yuan. Settling trade in Yuan is possible as China is a large exporter of manufactured goods to these countries. China is also trying to promote its role in the paper trade in oil via the Shanghai International Energy Exchange. However, given China's opaque governance, financial, and regulatory systems, global investors are unlikely to flock to China. The Chinese government has tried to deal with falling equity markets via coercion in the past; any trader who falls afoul of the government's preferred direction of trade will be at personal risk.

Can India, with its free market economy, and transparent and well regulated markets, play a larger role in the global energy trade, especially in setting prices and rule-making? Can the Indian rupee play a larger role in international trade? Some of the building blocks are already in place; India needs to use them sharply to become a bigger player in the energy trade. India already has a commodity exchange, the MCX (Multicommodity Exchange), which has contracts that trade crude oil. However, in the absence of physical settlements, this trade is mostly speculative. MCX uses oil prices from the New York exchange for settlement, so it's not a platform for price discovery either⁹.

Can the paper trade in MCX be made a physical trade, with producers and end users utilising it for hedging and price discovery? For such a market to develop, India needs buyers and sellers of oil. With a daily oil consumption of 5 million barrels, India has plenty of buyers but few sellers. This can be remedied. India's SPR can be opened to investors for storing crude oil; the SPR can be converted into an Exchange Traded Fund (ETF), with each unit representing a volume of oil, say 100 or 1000 barrels. This is similar to the gold ETFs that already exist in India and are traded on the bourses. The owners of these oil ETFs can use this oil as collateral to buy and sell futures and options on the MCX. This will create a class of natural sellers, and these investors can then be allowed to buy and sell futures and options on the MCX, with an option to settle the trade in physical oil at the SPR storage point. This trade can be carried out at the GIFT City, which has fewer financial regulations compared to Indian exchanges and may be a more convenient jurisdiction for foreign players, whose participation is essential if the exchange serves a larger purpose.

Since the oil is physically present in India, it is still available for use in an emergency—the original purpose of establishing the SPR. Moreover, the government is free to tie up funds to store tens of millions of barrels of oil—an amount that can easily run into billions of dollars.

For this trade to grow and for this exchange to play a meaningful role, India will need to attract oil producers and refiners. India is already a major market for national oil companies such as Aramco and Adnoc. They may be willing to sell a part of their output to traders on MCX for price discovery.

Likewise, Indian refineries such as Indian Oil, Bharat Petroleum, and Hindustan Petroleum may be willing to source a part of their purchases from an Indian exchange in the interest of transparency.

Finally, this exchange can serve one other purpose—a problem that has long vexed Indian policymakers. The Indian government subsidises LPG (liquified petroleum gas) and kerosene oil, both used for cooking. In times of extreme financial shocks, such as 2005-07 and 2010-14, the government also ends up subsidising consumers of other products such as diesel and petrol. The government bears some risk from extreme volatility in oil prices, and in a perfect world, it should be able to hedge this risk on an exchange like other

players. The Mexican government, which depends on oil exports, hedges the prices of its oil exports. Likewise, the Indian government could hedge the price of imports against extreme movements. However, it will be politically impossible for an Indian government to buy options on a global exchange; doing this on an Indian exchange based on Indian territory and governed by Indian law may be more doable. The last step is extremely ambitious, but it can help resolve the issue that has vexed all Indian governments from 1947 to the present day: how to protect the Indian economy from extreme price fluctuations. Making India more central to the global energy trade may help solve this riddle.

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RESURGENT INDIA : A Visible Change in Mindset and Psyche

Jay Bhattacharjee*

For quite some time, at least since the decolonisation of the world commenced in earnest in the late 1940s onwards, sociologists, historians, economists, and all other variants of scholars in the wide world of social sciences have studied the entire gamut of issues that were involved in the churning. The world saw not only numerous countries that were decolonised but entire continents.

In India's case as well, this academic churning happened. Understandably, in the first two decades or so, we saw a lot of euphoria and froth among our academics and foreign scholars. One should not be too critical about this, because we were in the good company of many other countries and societies that had gone through the process of decolonisation and liberation from alien rule.

In India, the entire evolution of research and scholarship on our independence movement and freedom struggle was a complicated and complex process. The residual influence of our departed colonial masters was overwhelming in many ways. The British did not necessarily leave behind many of their tribe to run the post-colonial Indian administration.

What they bequeathed to us were innumerable Indians whose mind-sets had been effectively

transformed by the Sahibs over more than two centuries. The *Kala Sahibs* were more royal than the erstwhile battalions from Whitehall and the British oligarchy. This was true both for the world of academics as well as the corridors of government departments.

India's bumpy ride as an independent country (which soon became a republic and, thereby, concluded its sovereignty odyssey) was a process that was far from optimal, or even satisfactory in a meaningful sense. For many decades, our country thrived more by posturing itself as a one-off model of a former colony that had "peacefully" earned its independence from a rampaging imperial power. The Gandhi-Nehru successor regime pulled off one of history's biggest marketing deceptions, based on voodoo sociology and ersatz economics. Throughout the 1950s and well into the 1970s, the country's rulers (who had mutated to a Gandhi-Nehru-Gandhi oligarchy) sold their Alice-in-Wonderland ideology to its domestic electorate and to an international audience, that was admittedly becoming progressively more sceptical about the Indian junta. Well into the late 1970s, the Indian economy under different appellations ("mixed economy," "democratic socialism," "socialist planning," "state control over commanding

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heights,” and other grandiose terms) blundered along. The term “Hindu rate of growth” (around 2 percent per annum) became an accepted term in economic theory.

Admittedly, there were some encouraging developments in the midst of the doom-gloom scene. Higher technical and scientific education and research (in the IITs, Indian Institute of Science, Tata Institute of Fundamental Research, Bose Institute, Indian Agricultural Research Institute, and others) matched international standards. It must be emphasised that these islands of excellence owe their survival and progress to a handful of savants and scholars. The agricultural marvel of high-yielding crops that took place was because international know-how was suitably transferred to India. A wide-scale famine was largely avoided.

Low-cost American assistance in the form of the PL480 programme was also very important for the young Indian state during droughts and floods. However, the principal factor that impeded India’s growth and development was the ham-handed “Control Raj” policy apparatus of the Union Government (GOI) and their junior partners, the state governments.

A perceptive, frank, and exhaustive study by the Department of Economic Affairs, Ministry of Finance, of the Government of India, published earlier in 2024, summed up the performance of the Indian economy in the last 65 odd years and identified the key factors that affected and defined our economic trajectory. Admittedly, this study was done when the current dispensation of the BJP

and its allies is in power. Yet, the study satisfies the tests of academic and intellectual rigour. A second study, of the same calibre, was done in 2019 by another reliable agency of the Indian government and came to the same conclusions.

More importantly, neutral organisations like The Economist, not known for their empathy for the NaMo regime, also published reports that were quite complimentary about the economic performance of India under the BJP-NDA dispensation (1). The white sahibs and memsahibs in London’s West End, whose condescension towards the lesser mortals in the former colonies is blatant most of the time, admitted grudgingly that India had done quite well under the saffron rulers.

Among domestic observers, The Economic Times (ET) is reasonably objective and scientific on most occasions when it has to study sensitive and complicated issues. In a recent study (2), it summarised what the BJP-led Union Government had managed to do in the last ten years. The ET referred to the reform measures initiated by the current government that have laid the foundations for solid economic growth in the coming decades. It quoted a study by the well-regarded Jefferies Equity Research agency, which said that India would become the third largest world economy by 2027 and is expected to achieve a capital market valuation of USD 10 trillion by 2030.

We now look, in greater detail, at how the BJP-led regime under PM Modi has performed in the last 10 years.

THE INDIAN ECONOMY'S GROWTH TRAJECTORY FROM 2014 TO 2024
THE GLOBE'S TEN LARGEST ECONOMIES: 2014 TO 2024

RANK	2014	2023
1	US	US
2	China	China
3	Japan	Japan
4	Germany	Germany
5	UK	India
6	France	UK
7	Brazil	France
8	Italy	Italy
9	Russia	Canada
10	India	Brazil

Source: IMF; CEBR

This is the most impressive performance by any country in the economic arena. India moved from the 10th rank to the 5th rank between 2014 and 2023.

GDP growth under the Modi administration has also been satisfactory. From 6% in the last year (2013-2014) of the Congress regime, it has gone up to 9% in 2021-2022. The rate has improved in recent quarters, and India is currently among the fastest-growing economies globally. The only weak point in the Modi government's track record is the unemployment rate. It was 5.2 % in 2014 when the BJP-led government came into power.

It went up to 8.72% in 2016, before coming down again to 6.8 per cent during January—March 2023, from 8.2 percent a year earlier.

On the critical issue of his approval ratings, Prime Minister Modi ranks as the most popular leader in the world, according to reputed international agencies. He obtained 77% on the popularity index and also scored very well on the negative disapproval rating of only 19%. Having established and assessed the benchmarks of the performance and ratings of the BJP-2 government under Narendra Modi, we must look at certain critical issues that need to be tackled head-on. What

is taking place currently is the resurgence of our venerable Indic civilisation. While supporting and endorsing this, we must frankly, and without fear or favour, highlight the residual weaknesses that affect India's sociopolitical structure. These weaknesses critically impact the ability of Bharat to confront our societal and cultural adversaries.

This writer and analyst would suggest that Bharat still has very powerful and potent adversaries, internally and externally, that are resolutely opposing Bharat's resurgence and will continue to do so. The substantial public endorsement of the BJP-NDA regime under Modi (3) does not mean that the opponents of our national resurgence have reduced the vitriol and vigour of their war against us. In addition to the external forces that would oppose a NaMo 2024 government in Raisina Hill, we must also bear in mind the important lessons that history holds for us.

I had penned an essay for this journal in 2019 in which I identified and studied the principal factors that cause regimes and states to collapse (4). This study was an appropriate assessment of the Republic of India after many decades of the Congress Raj and its junior accomplices in the Union Government. I had emphasised the widespread discontent with the central government and the Congress Party that was sweeping the nation.

To explain for lay readers, this article studied a number of examples from the past, when empires, regimes, juntas, and dynasties collapsed in different parts of the world. I did add the cautionary note that the Congress Party (under the leadership of the Nehru-Gandhi family) had displayed a lot of

dexterity in coping with existential threats and risks over many decades. However, the Congress ship was taking in too much water, and the captain and crew on the ship's bridge were manifestly ineffective.

My essay paraphrased the basic question that Edward Gibbon had asked in his landmark study (*The Decline and Fall of the Roman Empire*) more than two and a-half centuries earlier. The great scholar wrote: "*Instead of inquiring why the Roman Empire was destroyed, we should rather be surprised that it had subsisted for so long.*"

This is the warning bell that needs to be pointed out to any new occupants in North Block who are from the BJP-led alliance. They must avoid any of the mistakes and blunders of the Gandhi-Nehru-Gandhi coterie.

In a recent book (5), this author has studied the entire gamut of Bharat's resurgence with as much rigour and objectivity as he could summon. The problems in our resurgence effort are manifold, and the forces that are operating in the arena include many determined opponents. A few decades earlier, the Indic forces were limited in numbers, weak, disunited, and dispersed. However, thanks to a small band of dedicated warriors under Modi and his fellow combatants, the war has assumed an entirely new dimension. This is not mere hagiography, as the record shows. Whenever necessary, this writer and his comrades have sounded warning bells and made criticisms. Furthermore, there will be no apologies for using a thoroughly honourable term, "comrades," usurped by people who don't deserve it.

Bharat is currently facing both internal and

external threats. The two are interconnected and usually work in tandem. The former derive their resources and strengths from the latter, even though its members are nominally Indian nationals. The unqualified allegiance that the indigenous members of the dissenting groups and organisations in India have to their foreign patrons makes the situation very dangerous for India. The ideology and thinking of the opposition forces are completely and virulently against what our ancient culture and civilisation proudly proclaim.

Both NDA1 and NDA2 have tried to address and correct the deep fissures in our national structure, but this remains a work in progress. Many contentious issues, which a lot of people thought were outside the pale of resolution, have been successfully addressed. An example is the complete integration of Jammu and Kashmir with the Indian Union, which required that certain clauses of Article 370 be made inoperative. This was done in August 2019, when all the provisions of the Indian Constitution were made applicable to Jammu and Kashmir and all the clauses of Article 370 except clause 1 were made inoperative. Economic reforms such as the Goods and Services Tax (GST) and certain financial inclusion schemes have done much to unite the country and empower the individual. However, much still remains to be done. Structural changes do require a much larger time frame. The Westminster model of parliamentary democracy and the electoral system were critical hurdles in our recovery trajectory and continue to be so. Hopefully, the third term, beginning in the middle of this year, will see a renewed thrust in these areas.

It must be emphasised that the Indic civilisation forces in the current Union Government as well as in a number of state governments, particularly Uttar Pradesh, have demonstrated their commitment to the overall revival agenda by successfully inaugurating the Ram Temple in Ayodhya. Their odyssey was remarkable in every sense of the term. From judicial and administrative hurdles to opposition at the street level from Islamists and so-called “secular” elements within India and abroad, the journey would rank among the most arduous ones in social and cultural history.

In an essay penned a few days after the inauguration ceremony, this writer summarised the major issues and lessons that Indic forces should remember in the midst of our euphoria. I studied the examples from the last few hundred years, when other countries like Greece and some Slavic countries fought heroically against foreign occupants and invaders to regain their sovereignty and independent existence (6).

The concluding segments of this essay will study what I think are the underlying weaknesses in the ruling Indic dispensation and the pitfalls that they must assiduously avoid. A number of eminent social scientists have analysed the complex process of the collapse of societies and nations. This essay will primarily use the ideas of two of the pioneers, Joseph Tainter (1998) and Pitirim Sorokin (1975). It is to these primary sources that we will now turn to as we continue our assessment of post-2018 Bharat. I will use lay language and easily-understandable concepts as much as possible. Tainter put forward the thesis that the sustainability or collapse of societies depends upon the success or failure of their problem-solving institutions.

Furthermore, regimes and societies crumble when their “*investments in social complexity and their energy subsidies reach a point of diminishing marginal returns.*” He foresees collapse when a society involuntarily jettisons an important proportion of its structure. Sorokin’s thoughts were more or less on the same lines (7) and (8).

Tainter begins by categorising and examining the often-inconsistent explanations that have been offered in various studies on the collapse of societies and countries. In Tainter’s view, while invasions, crop failures, disease, or environmental degradation may be the apparent causes of societal collapse, the ultimate cause is an economic one, inherent in the structure of society, rather than external shocks that may batter them.

More research in this extremely interesting area is now also available from other scholars who have carried on where Tainter ended in 1988. Peter Turchin, another Russian-born social scientist who has a vast analytical canvas like Sorokin, his fellow Russian, has followed Tainter’s theories by suggesting a single mechanism that leads to collapse. This mechanism is the loss of “social resilience,” which Turchin describes as the ability of a social system to “cooperate and act collectively for common goals.”

According to Turchin, the United States was collapsing well before COVID-19 erupted in the country in early 2020. For the last 40 years, he argues, the population has been relentlessly getting impoverished and more unhealthy, while the elites have accumulated more and more wealth. All the while, the legitimacy of institutions is continuously eroded. “*The United States is basically eating itself from the inside out,*” he says.

Inequality and “popular immiseration” have left the country extremely vulnerable to external shocks like the pandemic, and to internal triggers. Turchin does not hesitate to predict that the U.S., in the years to come, can expect much more of the variety of social upheaval that it saw in 2020. This is simply because the “*underlying conditions are only getting worse.*” Clearly, the Tainter school of civilisational collapse has enrolled new proponents and advocates, who will continue to enlarge the boundaries of this most captivating sociological doctrine.

For the lay reader, I would like to emphasise the key factor in all this research and data. This is the concept of “**social resilience**” (emphasis added). NaMo and his team must get to the root of this phenomenon, and understand and appreciate its origins as well as its dimensions and magnitude. The countries and regions that possess and utilise this asset are admittedly few, but they would include Japan and Singapore in our part of the globe and Scandinavia and Switzerland in the western hemisphere.

We must also assess the factors that contribute to “social resilience.” Such an exercise need not be mathematical or numeric. For the lay public, a non-quantified study would do, since it would be easier for a general audience to appreciate what the concept implies or stands for. Also, it passes the test that the good poet Alexander Pope spelled out in his oft-cited poem: “For forms of government, let fools contest. What is best administered is best.”

For those in the vast Indian electorate who would like to extend a helping hand to the current government and its key personnel to better appreciate what action is required (in the finest

traditions of our ancient culture and civilisation), here are a few hints that our Indic rulers should bear in mind when they re-assume the reigns of administration in Raisina Hill, a few weeks after the publication of this essay:

1. Reform the judiciary from top to bottom—from the Supreme Court to the lowest judicial forum. Make the apex judiciary liable and accountable in the same manner as the bureaucracy and the legislators. Bharat cannot continue with the charade of one wing of the governing apparatus appointing themselves and not being accountable to anyone else.
2. The delays in decision-making at all other levels of governance must be eliminated or drastically reduced.
3. The ersatz notion of “secularism” that currently prevails in India must be done away with as soon as possible. It will be a very intense and complex process, with the supporters of this pernicious ideology fighting with all the resources (many external) at their disposal.
4. While English will continue to be a language that is extensively used in public life, Indian languages must be given widespread support. The Indian DNA permits us to be multilingual without much effort.
5. And finally, the new leaders in the post-2014 regimes must ensure that they heed Sri Aurobindo’s unforgettable clarion call in 1905: “We have to create strength where it

did not exist before; we have to change our natures, and become new men with new hearts, to be born again... We need a nucleus of men in whom the Shakti is developed to its uttermost extent, in whom it fills every corner of the personality and overflows to fertilise the earth. These, having the fire of Bhawani in their hearts and brains, will go forth and carry the flame to every nook and cranny of our land.”

We have to conclude with the words of a more recent Indic savant-warrior, the great Professor Syama Prasad Mookerjee, a faithful follower of the Sage of Pondicherry, who spoke the most profound truth in his epic address at the Bombay University Convocation in August 1937. The grateful Indian nation must remember that the titan sacrificed his life for his motherland nearly 16 years later, in 1953. Needless to say, the rulers of the Indian Republic in 1953 shamelessly refused to investigate the possible causes surrounding the death of the national legend.

This is what he said for the benefit of his Indian sisters and brothers: “You have drunk deep at the springs of western knowledge. While you will not hesitate to absorb for your benefit and for the national good the best elements in western culture and thought, you must not in any case permit the destruction of the vital elements of your own civilisation.”

The moving spirits in the BJP-NDA national administration could not possibly have more relevant and inspiring guidelines for their future course of action than these thoughts.

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Transforming India through Connectivity

Chitra Shekhawat*

“Connecting India” is more than just a catchphrase; it is a key tactic for promoting social cohesiveness, economic expansion, and national integration. In the past decade, the state of India’s urban infrastructure has seen a dramatic change. The Modi government’s persistent commitment to infrastructure development has fuelled unprecedented growth and connectivity throughout the nation. India’s economy has now touched USD 4.11 trillion and is the fastest-growing among the world’s trillion-dollar economies. This has been made possible by its vast and varied terrain, which calls for the development of strong transportation networks, contemporary energy systems, and dependable communication infrastructure to connect regions, connect urban and rural areas, and promote both domestic and international trade.

From ‘fragile five,’ to now the fifth-largest economy in the world with an annual growth rate of 8.4%, India is gearing up to achieve its economic potential, provide employment, and enhance the standard of living for its people by investing in infrastructure. Furthermore, infrastructure development is essential for empowering underprivileged populations, reducing socioeconomic gaps, and advancing environmental sustainability. “Connecting India” highlights the significance of developing resilient, inclusive, and forward-thinking infrastructure as India continues

on its road to prosperity, by creating the foundation for a wealthy and united country.

The Narendra Modi government has made infrastructure development a top priority because connecting India is a crucial component of raising the standard of living for its citizens. Accordingly, several ground-breaking projects to extend digital infrastructure, improve urban amenities, and update transportation networks are either ongoing, in the pipeline, or have been executed. This has become the defining feature of the government’s performance.

These initiatives, which range from the construction of road and rail networks, airports, canals, ropeway systems, and the manufacture of rail coaches, are focussed on promoting unbiased and viable growth throughout the country. These include, among others, the construction of the Atal Tunnel, the longest high-altitude tunnel in the world, and the Chenab Bridge, the world’s tallest railway bridge. From railways to waterways and roadways to airways, several programs and policies have been put into place to encourage infrastructure development.

Modernisation of Railways

The revamp of India’s railways has been a very visible feature of this change. This transformation has been characterised by imaginative and forward-looking leadership,

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increased budgetary allocations, and smart investments—indeed, a welcome change from earlier years when the rail network was both overburdened and overstretched. As per the data, 94% of railroads are now electrified, unattended rail crossings have been removed, and safety precautions have been strengthened. More than 25,000 km of additional railway tracks have been laid, outpacing the aggregate length of several wealthy nations. The passenger experience too has been completely transformed with the development of bio-toilets, internet-based reservation platforms, and GPS-based tracking systems, which have improved train travel efficiency, safety, cleanliness, and a more enjoyable journey experience.

With their improved passenger amenities, quicker acceleration, and increased safety features, the Vande Bharat trains mark a breakthrough in India's railway system. These trains provide a convenient and comfortable travel experience, with features including mobile charging ports for every seat, automatic plug doors, and reclining ergonomic seats. Over 100 Vande Bharat train services are running on Indian Railways as of January 31, 2024. Recently, on March 12, 2024, the Prime Minister flagged off ten new Vande Bharat trains.

During 2022–2023, the overall occupancy percentage was an outstanding 96.62%. With the goal of offering a more rapid, energy-efficient, and sustainable form of travel, Indian Railways is also rapidly completing the conversion of all Broad-Gauge tracks to electrical. Until 2014, only 21,801 km of the broad-gauge railway network were electrified. As of date, 61,508 km of the Indian Railways route's overall Broad-Gauge network of

65,556 km has been electrified, which is 93.83% of the total rail network. Replying to a question in the Lok Sabha, the Railways Minister, Shri Ashwini Vaishnaw, gave out the following long-term effects of the nation's railway electrification:

- A decrease in the emissions of carbon
- Increased capacity for haulage
- A green and clean form of transportation
- Reduced line haul costs
- Preserving valuable foreign currency for crude oil

India's railway stations are to be developed and modernised through the Amrit Bharat Station Scheme launched by the Modi Government, under which a total of 1318 stations have been chosen for reconstruction, which will be developed phase-wise using a long-term holistic strategy.

Urban commuting has been transformed by the expansion of India's Metro Rail network, which now has an operational network of 945 km as compared to 248 km in 2014. With almost 1 crore passengers using the system each day, Metro Rail plays a crucial role in enabling urban populations to have easy access to transit, as indicated by its growth. The Metro Rail network has grown from serving just 5 cities in 2014 to serving 21 cities nationwide, with 919 km of new lines being built in 26 new cities. Additionally, the country's dedication to improving regional connections and updating its transportation infrastructure is further demonstrated by the launch of India's first state-of-the-art Namo Bharat train, which is currently in operation on the Delhi-Meerut RRTS (Regional Rapid Transit System) track.

Roadways: The Road to Progress

In the last 10 years, India's highway and roadway networks have expanded and developed at an unprecedented rate. Initiatives like Bharatmala Pariyojana and the National Infrastructure Pipeline are attending to the needs of neglected regions, major cities, and popular tourist destinations. The Bharatmala Pariyojana aims to maximise the effectiveness of the nation's transportation of people and products. In the initial phase, 34,800 km of national highways are being constructed to overcome the obstacles caused by infrastructure gaps. Economic corridor development, feeder routes, inter corridor development, and national corridor efficiency improvement are the main elements of the Pariyojana. Over 55,000 km of new roadways have been built since 2014, demonstrating the current government's dedication to building more infrastructure. In addition to enhancing connectivity, initiatives like the PM Gati Shakti Yojana encourage integrated planning and execution of infrastructure projects and guarantee project completion on schedule by placing a high priority on multi-modal connectivity.

The Regional Rapid Transport System (RRTS) project is being designed in accordance with the Prime Minister's ambition to revolutionise regional connectivity in the nation through the establishment of new world-class transport infrastructure. RRTS is a brand-new semi-high-speed, high-frequency commuter rail system. A revolutionary regional development program, it has a design speed of 180 km/h and is intended to deliver high-speed trains for interstate travel every 15 minutes. The RRTS is a hybrid network that will include comprehensive

multi-modal connectivity with bus services, metro stations, railway stations, etc., as drafted under the PM Gati Shakti National Master Plan. These innovative regional transportation initiatives will further contribute to increased economic activity, better access to jobs, healthcare, and education, as well as a notable decrease in air pollution and traffic congestion. The Delhi-Ghaziabad-Meerut RRTS Corridor's 17-kilometre priority segment will link Sahibabad to "Duhai Depot," passing through the stations at Ghaziabad, Guldhar, and Duhai. The Prime Minister placed the foundation stone for the Delhi-Ghaziabad-Meerut corridor on March 8, 2019.

In the last two terms of PM Modi, India's national highway network has advanced remarkably, thanks to increased funding allocation and building speed. The budget for highways and road transportation has increased by 500% since 2014, which has significantly improved infrastructure development. In 2020–21, the rate of highway construction hit an astounding 37 km a day, setting a record for India's fastest highway construction.

Furthermore, the National Highway network has grown by 60%, from 91,287 km in 2014 to 1,46,145 km in 2023. The length of the 4-lane National Highway has also grown by 2.5 times, from 18,387 km in 2014 to 46,179 km in 2023. Added to that, the average construction rate of the National Highways has also increased from 12.1 km a day in 2014 to 28.3 km a day in 2024, an exceptional and outstanding increase of 143%.

Expansion of Airways and Airports

The civil aviation industry has also experienced

significant change, with a growing number of aircraft routes and airports nurturing accessibility and economic growth. India's aviation network is quickly expanding, with 158 airports in service and 84 more under development over the last ten years. As of March 13, 2024, over 1.36 crore people had flown. As a result of programs like UDAN (Ude Desh ka Aam Nagrik), which have improved local connectivity and ensured that even underdeveloped and rural regions are connected to the national airline network, the number of operational airports has exceeded twofold in the last ten years.

In 2023, the Ministry of Civil Aviation (MoCA) achieved a number of significant milestones as the aviation industry rapidly grew to new heights. The following list includes a few of MoCA's most notable accomplishments:

- 60 new Regional Connectivity Schemes (RCS) routes were launched between January 1, 2023, and December 21, 2023.
- Six airports have been operationalised: Rourkela, Hollongi, Jamshedpur, Cooch Behar, Utkela, and Shivamogga.
- In the nation's northeastern states, twelve new RCS routes were launched.
- UDAN 4.2 and 5.0 have awarded 154 new RCS routes.

The Digi Yatra is another milestone achieved by the Ministry of Civil Aviation. The goal of the Digi Yatra project is to use facial recognition technology (FRT) to process passengers at airports in a hassle-free and smooth manner. The project's primary idea is to allow any traveller to pass through different airport checkpoints using paperless, contactless processing that verifies identity using facial features. From anywhere, passengers can

sign up for the platform. The Digi Yatra app has been downloaded by more than 35 lakh users thus far. The Digi Yatra initiative has been introduced at thirteen airports: Bengaluru, Delhi, and Varanasi in 2022; Kolkata, Vijayawada, Hyderabad, and Pune in 2023; and six airports in August 2023: Mumbai, Jaipur, Ahmedabad, Cochin, Lucknow, and Guwahati. Over 91 lakh travellers have used the Digi Yatra service to pass through airports since it was introduced. Digi Yatra would eventually cover every airport in a systematic manner.

Waterways

India's waterways have experienced tremendous growth; the National Waterways Act of 2016 designated 111 waterways as National Waterways (NW), demonstrating the country's dedication to improving the infrastructure for inland water traffic. With this accomplishment, the nation's various areas will be better connected, trade will be encouraged, and the movement of people and products will be made easier. Initiatives like Sagarmala are lowering costs and advancing sustainable development by utilising India's extensive coastline, which is important for transportation and trade. The economic potential of once-neglected inland rivers is increasingly being realised through this revitalisation. The government is generating jobs, relieving pressure on the road and rail systems, reducing congestion, and encouraging environmental preservation.

On January 17, 2024, Shri Narendra Modi dedicated three significant infrastructure projects totaling over Rs 4,000 crore in Kochi, Kerala, under the Sagarmala Project. In his address, he mentioned "Sabka Prayas yields better results," emphasising

the double-digit yearly growth Indian ports have seen over the past ten years. He highlighted that ten years ago, ships had to wait at the ports, causing the unloading process to take a very long time. The Prime Minister stated, “Today, the situation has changed,” noting that India’s ship turnaround time has surpassed that of several affluent countries. The changes that have been implemented in the last ten years in the ports, shipping, and waterways sectors have increased employment possibilities and brought new investments to India’s ports. As mentioned by PM Modi, there are now 140% more seafarers in the nation as a result of the changes made to the regulations pertaining to Indian sailors. The Prime Minister said that using inland rivers has greatly increased both passenger and freight transportation inside the nation.

The Sagarmala Programme, initiated by the government, aims to promote port-led development, lower transportation costs, and boost economic growth. Projects from a variety of categories are included in the programme, including modernisation of already-existing ports and terminals, improvement of port connections, fishing harbours, technology and skill development centres, etc. Under the Sagarmala Programme, 839 projects with a combined investment value of about Rs. 5.8 lakh crore are scheduled for implementation. 241 projects worth around Rs. 1.22 lakh crore have been completed under the programme.

Conclusion

The capital investment allocation for infrastructure is being boosted by 33% in Budget 2023–24 to Rs. 10 lakh crore (USD 122 billion),

which is equivalent to 3.3% of GDP. A capital budget of Rs. 2.40 lakh crore (US\$ 29 billion) has been allocated for the railways as part of the Union Budget 2023–24. This is the largest spending to date and about nine times the outlay for 2013–14. The answer to India’s problems in the future lies in infrastructure development. Analysing the previous budget spending and allocation, it comes to light that the present government has been relying on the multiplier effect that we experience with infrastructure development. With the largest number of young people in the world, the problem of unemployment has been plaguing India, and job creation has become a major concern for the government as an economy and for the BJP as a political organisation going into elections. It is hence seen that the increased spending on infrastructure development is a bet that the government has taken for the election year. Previously, the centre and state governments relied on welfare spending during elections, but this has come to be one of the first times when the government has instead increased infrastructure spending by 11.1% for the period 2024-2030 in comparison to the period 2017-2023.

The Modi government has emphasised the significance of digital infrastructure in the nation’s urban transformation, along with physical infrastructure. Technology has been instrumental in increasing efficiency, increasing transparency, and simplifying urban services through the use of digital governance platforms and e-governance programs. Urban areas are becoming more responsive, connected, and citizen-centric by utilising digital technologies, empowering citizens, and promoting inclusive growth.

The country's infrastructure is expected to be the main driver of India's economic growth, which is shortly expected to reach USD 5 trillion. The increased expenditure is only anticipated to help close the investment deficit. "The budget's increase in capital investment outlay for the fourth time in a row will sustain the momentum the Indian economy is currently enjoying, stimulating private capital expenditure, driving economic growth, and increasing consumption," Neeraj Bansal, co-head and COO-India Global, KPMG in India, says. "Further emphasising efficient logistical development under the PM Gati Shakti initiative, three major railway corridors have been announced, which are expected to significantly enhance India's supply chain ecosystem."

The objective of establishing an inclusive,

resilient, and sustainable New India is at the centre of these infrastructure projects. The Modi administration is accelerating socio-economic growth nationwide, empowering millions of people, and closing disparity amongst them by attending to the basic requirements of urban as well as rural residents. It has involved more than just constructing physical buildings; it has also involved changing people's lives and establishing possibilities for everyone. The government has laid the foundation for a more prosperous and sustainable future by committing to prioritise infrastructure development. India is making enormous progress towards reaching its full capabilities and becoming an international pioneer in the construction of resilient, dynamic, and inclusive infrastructure with every new project.

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A Decade of Reforms: The Evolution of Education and Skill Development

Swadesh Singh*

Introduction

The education sector plays a pivotal role in shaping the socio-economic development of a state. Historically, India had a knowledge system that not only ensured the effective transfer of a wholistic episteme from generation to generation but also its enhancement as per the requirements of age, nation, and society. A smooth transition of this tradition to the modern day was hampered by successive colonial interferences, leading to several glaring gaps in the modern education systems. Recognising the urgent need to plug these gaps, the Modi government has introduced several groundbreaking reforms aimed at enhancing the quality, accessibility, and skill orientation of education across India. This article examines the trajectory of these reforms over the past decade, highlighting their impact on primary and higher education, research, entrepreneurship, and skill development.

Changes in Primary and Secondary Education

The Modi government has implemented a range of initiatives to improve the quality and accessibility of primary and secondary education. Notably, during the COVID-19 pandemic, the government launched the PM eVidya channel to facilitate remote learning for school students. Furthermore, significant budgetary allocations have

been made to enhance infrastructure, digital literacy, and teacher training programmes in schools across the country.

Initiatives in the primary and secondary education sectors reflect a commitment to driving transformational change in India's educational landscape. By embracing digital technologies, enhancing infrastructure, investing in teacher training, and promoting inclusive education, these reforms are not merely incremental improvements but signify a fundamental shift towards a more equitable, accessible, and quality-driven education system.

In the wake of the COVID-19 pandemic, the government's swift adoption of digital platforms, such as the PM eVidya channel, which targeted almost 25 crore school students across India, demonstrates a willingness to innovate and adapt to changing circumstances. This digital transformation not only ensures the continuity of education during crises but also opens up new avenues for learning and collaboration, transcending geographical boundaries and traditional constraints.

Prime Minister Narendra Modi emphasised that the country's education system persevered through the pandemic due to digital connectivity, underscoring that the government's online-centric approach has led to a reduction in the digital gap.¹ The bridging of the digital divide had been promised

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by the BJP government in its 2014 manifesto. Moreover, the emphasis on infrastructure development in primary and secondary schools underscores a commitment to providing every child with a conducive learning environment. By investing in modern classrooms, laboratories, libraries, and sanitation facilities, the government is laying the foundation for holistic development and lifelong learning opportunities. Over the past decade, school enrolment has exhibited a consistent upward trend, with figures rising from 96.7% in 2014 to 98.4% in 2022. Notably, there has been a significant increase in female enrolment.

The proportion of girl students aged between 11 and 14 who are not enrolled in school decreased from 10% in 2006 to a mere 2% in 2022.² During the question hour, while addressing supplementary queries from Members of Parliament, the Education Minister, Shri Dharmendra Pradhan, highlighted a notable increase in enrolment rates among girls. He mentioned that there has been a remarkable 31% growth in enrolment among girls from 2014-15 to 2021-22. Additionally, he noted that the enrolment figures for girls belonging to Scheduled Castes (SC) showed a substantial growth of 50%. Moreover, Prime Minister Modi pointed out that the enrolment growth rates for Scheduled Castes (SC) and Scheduled Tribes (ST) students were significant, standing at 44% and 65%, respectively, over the same period. Among Muslim girls, there has been an increase of 45 percent in enrolment, he said.³

Critical to the success of these reforms is the focus on teacher empowerment and capacity building. Through targeted training programmes and recruitment drives, the government is equipping

educators with the skills and knowledge necessary to deliver high-quality instruction and foster student engagement. Empowered teachers serve as catalysts for change, nurturing the next generation of innovators, leaders, and change-makers. Upon assuming office, Prime Minister Modi demonstrated a clear vision and purpose by launching the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching on December 25, 2014. Named after the esteemed founder of Banaras Hindu University (BHU), Pandit Madan Mohan Malaviya, to whom the Modi government has posthumously conferred the Bharat Ratna, this initiative reflects the government's commitment to enhancing the quality of education and honouring the legacy of visionary educators.⁴

Addressing the pressing need to cultivate a skilled teaching workforce, Prime Minister Modi emphasised the importance of producing proficient educators during the launch of the mission. The Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching is a comprehensive endeavour that tackles various aspects related to teaching, teacher preparation, professional development, curriculum design, assessment methodology, research in pedagogy, and the development of effective teaching strategies.

By recognising the critical role of teachers and the significance of quality education in national development, the Modi government's initiative underscores its dedication to fostering excellence in the education sector. Through strategic measures aimed at empowering teachers and enhancing teaching methodologies, the mission aims to elevate the standards of education across the

country, aligning with the government's broader vision for educational reform and advancement.

At the heart of the Modi government's education reforms is a vision of inclusive and equitable education for all. Initiatives such as the Sarva Shiksha Abhiyan (SSA), and the Rashtriya Madhyamik Shiksha Abhiyan (RMSA), aim to bridge gaps in access and quality, ensuring that no child is left behind. By prioritising the education of marginalised and disadvantaged groups, the government is laying the groundwork for a more inclusive society where every individual has the opportunity to realise their full potential. The Education Minister, Shri Dharmendra Pradhan, emphasised, "We believe that India's essence is preserved within its languages, and the Modi government has taken steps to facilitate education in native tongues." He highlighted that the Central Board of Secondary Education (CBSE) has issued a circular mandating the creation of teaching and learning materials in all 22 scheduled languages. Furthermore, he mentioned that in states like Madhya Pradesh, education in fields such as medicine and law is now being delivered in Hindi. This initiative aims to promote linguistic diversity and ensure that students have access to education in their mother tongue, fostering a deeper understanding and connection with their cultural heritage. Furthermore, the significant increase in budget allocations for primary and secondary education underscores the government's unwavering commitment to investing in human capital development.

This investment not only strengthens the education system but also fuels economic growth, innovation, and social progress, positioning India

as a global leader in the knowledge economy of the 21st century.

On September 7, 2022, the Cabinet approved a new centrally sponsored scheme named PM SHRI (PM Schools for Rising India). This initiative aims to establish more than 14,500 schools across the country, focusing on strengthening select existing schools managed by various authorities such as the central government, state governments, union territory administrations, and local bodies. These PM SHRI schools are envisioned to serve as exemplars in implementing the National Education Policy (NEP) 2020, which emphasises equitable, inclusive, and joyful learning environments. Over time, these schools are expected to emerge as leaders in their regions, providing high-quality education while accommodating the diverse backgrounds, multilingual needs, and varying academic abilities of students. The overarching goal is to empower students to become active participants in their own learning journey, aligning with the vision outlined in the NEP 2020.

By leveraging existing infrastructure and resources, the scheme seeks to elevate the standard of education across the country by nurturing well-rounded individuals equipped with the skills needed to thrive in the 21st century. Through the PM SHRI initiative, the government aims to address the evolving needs of the education sector and ensure that every child has access to quality education, regardless of their socio-economic background or geographical location.

In essence, the reforms in primary and secondary education under the Modi government represent a paradigm shift towards transforma-

tional change. By leveraging technology, enhancing infrastructure, empowering teachers, and promoting inclusivity, these reforms are reshaping the educational landscape of India, unlocking the potential of millions of young minds, and driving the nation towards a brighter, more prosperous future.

Analysis of Budget Allocations for the Education Sector (2014-2024)

Over the past decade, the Modi government has demonstrated a strong commitment to advancing education in India, as reflected in the significant increases in budgetary allocations for the education sector. Starting from Rs 68,728 crore in 2014, the allocation for the education sector reached its highest-ever level of Rs 1,12,898.97 crore in 2024. This notable rise in budgetary allocations reflects the government's unwavering commitment to prioritising education as a national development agenda. The government's budgetary decisions have been directed towards improving both the quality and accessibility of education across the country. Initiatives such as the Rashtriya Uchchatar Shiksha Abhiyan (RUSA), the establishment of new AIIMS, IITs, and IIMs, and the upgrade of secondary schools have aimed at enhancing the quality of higher education and expanding access to quality healthcare and education facilities.

Skill development has been a key focus area of the Modi government's education agenda, with significant allocations towards initiatives such as the Skill India programme, the Pradhan Mantri Kaushal Vikas Yojana, and the establishment of multi-skill development centres. These efforts are geared towards equipping the youth with the

necessary skills to thrive in the rapidly evolving job market and contribute to India's economic growth. The government's budgetary allocations have also aimed at promoting inclusive education by addressing the needs of marginalised and disadvantaged groups. Initiatives such as the Sarva Shiksha Abhiyan (SSA), scholarships for SC/ST students, and the establishment of Ekalavya Model Residential Schools have been instrumental in improving access to quality education for underprivileged communities and bridging the gap in educational outcomes. Despite facing various challenges, such as the COVID-19 pandemic and economic uncertainties, the government has maintained its commitment to education growth by increasing budgetary allocations and introducing diverse initiatives. The significant rise in allocations for education in the 2024 budget underscores the government's determination to prioritise education as a catalyst for national development and progress.

Another transformative blueprint in education has been the National Education Policy (NEP) 2020, introduced on July 29, 2020. Among its pivotal features are initiatives to ensure universal access to education from pre-primary to Grade 12, focusing on providing quality early childhood education for children aged 3-6 years. The policy advocates a new curricular and pedagogical structure of 5+3+3+4 years, aiming to break down rigid barriers between disciplines and streams. It prioritises foundational literacy and numeracy through the establishment of a National Mission, and emphasises multilingualism, promoting the use of the mother tongue or local language as the medium of instruction up to Grade 5. Assessment

reforms include conducting board exams twice a year and establishing the PARAKH National Assessment Centre. NEP 2020 is committed to equitable and inclusive education, targeting socially and economically disadvantaged groups, and ensuring transparent teacher recruitment and performance evaluation processes. Infrastructure development, vocational education integration, and holistic learning approaches are other key components, with the overarching goal of achieving 100% Gross Enrolment Ratio (GER) in preschool to secondary education by 2030, thereby fostering a more educated and empowered society.^{5 6}

A significant initiative in the realm of education is the Atal Tinkering Lab (ATL) program launched by AIM (Atal Innovation Mission), NITI Aayog. This programme introduces state-of-the-art spaces, known as Atal Tinkering Labs, within schools with the objective of nurturing curiosity and innovation among students from grades 6 to 12 nationwide. Equipped with 21st-century tools and technologies such as the Internet of Things, 3D printing, rapid prototyping tools, robotics, miniaturised electronics, and do-it-yourself kits, these labs serve as platforms to stimulate problem-solving and foster an innovative mindset among students. The programme aims to not only enhance the technological skills of students but also instil in them the ability to think critically and creatively. Since its inception, AIM has successfully established 10,000 Atal Tinkering Labs in schools across the country. By providing access to cutting-edge tools and encouraging hands-on experimentation, the ATL programme empowers students to explore, experiment, and innovate, thereby preparing them to tackle real-world

challenges and contribute to India's journey towards becoming a knowledge-driven economy.⁷

Reforms in Higher Education

The focus in higher education is on expanding access and enhancing quality. This includes the establishment of new Indian Institutes of Technology (IITs), National Institutes of Technology (NITs), and Indian Institutes of Management (IIMs), resulting in an exponential rise in the number of premier institutions in the country. Additionally, the government has undertaken measures such as scrapping the M.Phil. programme and introducing four-year bachelor courses to align higher education with industry requirements.

Significant reforms have been initiated in the higher education sector, aimed at expanding access and enhancing quality. Since 2014, remarkable strides have been made in establishing and upgrading premier institutions, thereby catalysing an exponential rise in the number of Indian Institutes of Technology (IITs), National Institutes of Technology (NITs), and Indian Institutes of Management (IIMs) across the country. Notably, six new IIT institutes have been established, and the Indian School of Mines (ISM), Dhanbad, has been upgraded to an IIT. The Lok Sabha passed the Institutes of Technology (Amendment) Bill, 2016, facilitating the opening of seven new IITs in various states, further broadening access to quality technical education. Additionally, seven new IIMs have been established in the past six years, with six commencing their Post Graduate Programme in Management in 2015, and IIM Jammu, established in 2016, contributing to the enrichment

of managerial talent across diverse regions.

In a significant development, 22 new universities have been established in the Northeast region, marking a milestone in the educational landscape of the area. Additionally, Ladakh has witnessed the establishment of its inaugural Central University, a significant step forward for the region's higher education sector. Moreover, the establishment of the first-ever forensic university and a rail and transport university further underscores the government's commitment to bolstering specialised education and research in crucial sectors. These initiatives aim to enhance educational opportunities, promote academic excellence, and contribute to the overall socio-economic development of the regions they serve.⁸

The National Education Policy (NEP) 2020 has been a cornerstone in driving comprehensive reforms in higher education, with the overarching goal of increasing the gross enrolment ratio (GER) to 50% by 2035. The University Grants Commission (UGC), as the apex institution entrusted with formulating and executing higher education policies, has spearheaded various initiatives to align India's education system with global standards and foster a culture of innovation and excellence. The introduction of a choice-based credit system (CBCS) provides students with the flexibility to choose courses and earn credits, promoting student-centric learning and interdisciplinary studies. Furthermore, the institution of an Academic Bank of Credit (ABC) will digitally store academic credits earned from recognised higher education institutions (HEIs), facilitating seamless credit transfer and degree awarding based on accumulated credits.

In line with NEP 2020's vision of exposing 50% of learners to vocational education by 2025, HEIs are now mandated to offer vocational courses in all bachelor programmes. This initiative, coupled with partnerships with industry and NGOs, aims to equip students with practical skills in cutting-edge domains, thereby enhancing employability and fostering entrepreneurship. Additionally, renewed focus has been placed on open and distance learning, with the implementation of online courses and digital repositories, complementing traditional in-class methods. Furthermore, Massive Open Online Courses (MOOCs) are now eligible for credit-based recognition, providing learners with access to high-quality educational resources and expanding opportunities for lifelong learning and upskilling.

The holistic approach towards higher education reforms underscores the government's commitment to nurturing a skilled workforce, fostering innovation, and promoting inclusive growth in alignment with the evolving needs of the 21st-century economy. By laying the groundwork for a robust higher education ecosystem, these reforms are poised to propel India towards becoming a global knowledge hub and a powerhouse of talent and innovation.

Focus on Research and Entrepreneurship

Research and innovation as key drivers of economic growth have been prioritised. The establishment of the National Research Foundation aims to promote interdisciplinary research and foster collaboration between academia and

industry. Furthermore, initiatives such as the establishment of incubator centres have facilitated the creation of a conducive ecosystem for entrepreneurship and innovation in the education sector. In its 2014 manifesto, the government pledged to elevate the quality of academia and research, aiming to align Indian universities with global standards. As a result, research and innovation have emerged as central pillars driving economic growth and development. In addition, several initiatives, aimed at nurturing a vibrant research ecosystem in the country, have been implemented.

At the forefront of these efforts is the establishment of the National Research Foundation, a landmark initiative designed to promote interdisciplinary research and foster collaboration between academia and industry. This apex body will play a crucial role in directing scientific research across higher education institutions (HEIs) and public institutions, thereby cultivating a culture of innovation and creating synergistic partnerships between academia and government.

Aligning with the objectives of the National Education Policy (NEP), the University Grants Commission (UGC) is actively promoting research and innovation across disciplines, including the humanities and social sciences. Incentives are provided to HEIs to set up start-up incubation centres, technology development centres, and research facilities in frontier areas, fostering greater industry-academia linkages and driving innovation-led growth.

Finance Minister Nirmala Sitharaman's budget announcement further underscored the government's commitment to research and

innovation. The unveiling of a corpus of Rs. 1 lakh crore, available at minimal or nil interest rates, aims to incentivise private sector investment in research and development, particularly in the sunrise sectors. This significant allocation reflects the government's vision of harnessing the potential of India's tech-savvy youth and fostering innovation-driven entrepreneurship.

Furthermore, the scheme to strengthen deep-tech technologies for defence purposes aligns with the government's broader agenda of promoting self-reliance and indigenous innovation in critical sectors. This initiative not only reinforces India's defence capabilities but also paves the way for technological breakthroughs with far-reaching implications for national security and strategic autonomy. The impact of these initiatives is already evident, with the emergence of a thriving startup ecosystem across regions. In Jammu & Kashmir, for instance, the conducive environment created by government policies has led to a surge in startup registrations, with the region securing top positions in the 'Ranking of States on Support to Startup Ecosystems.' Startups in diverse sectors such as e-commerce, horticulture, agriculture, tourism, and crafts have flourished, signalling the transformative potential of government-led interventions in fostering innovation and entrepreneurship. The unwavering focus on research and innovation aims to leverage India's demographic dividend and technological prowess to drive inclusive growth and prosperity and to propel India towards becoming a global leader in innovation and knowledge-driven economies.

Revitalising the Indian Knowledge System

In a bid to preserve and promote India's rich cultural heritage, the Modi government has taken steps to revitalise the Indian knowledge system. Efforts have been made to integrate traditional knowledge systems into mainstream education, ensuring that students gain a holistic understanding of India's diverse cultural heritage. The Indian Knowledge System (IKS) cell, established in October 2020 under the Ministry of Education (MoE) at AICTE, New Delhi, represents a concerted effort by the Modi government to preserve, promote, and integrate India's rich cultural heritage and traditional knowledge systems into the contemporary education framework. This innovative initiative seeks to foster interdisciplinary research, preserve and disseminate traditional knowledge, and actively engage in spreading India's diverse heritage across various domains such as arts and literature, agriculture, basic sciences, engineering, technology, architecture, management, and economics.

Prime Minister Narendra Modi has been a vocal advocate for an education system rooted in Indian values, emphasising the importance of embracing India's cultural legacy in shaping the country's educational landscape. In commemorating the 200th birth anniversary of Arya Samaj founder Swami Dayanand Saraswati, PM Modi underscored the need for a return to India's ancient wisdom embodied in the Vedas, highlighting the role of figures like Swami Dayanand in liberating Indian society from the shackles of superstition and colonial influence.

The launch of the textbook 'Introduction to Indian

Knowledge Systems: Concepts and Applications' by Union Minister of Education and Skill Development, Shri Dharmendra Pradhan, further exemplifies the government's commitment to decolonizing the Indian education system and revitalising indigenous knowledge systems. Emphasising the importance of integrating insights from India's ancient past with contemporary challenges, Education Minister Pradhan highlighted the role of IKS in offering solutions to global issues. By fostering a dialogue between traditional wisdom and modern knowledge, the government aims to create synergy that addresses the complex socio-economic and environmental challenges of the 21st century.

Moreover, the New Education Policy (NEP) has provided a comprehensive roadmap for incorporating IKS into the higher education curriculum, signalling a paradigm shift towards a more inclusive and holistic approach to education. By recognising the significance of India's indigenous knowledge systems, the NEP seeks to equip students with a deeper understanding of their cultural heritage while fostering critical thinking and innovation. This holistic integration of traditional wisdom with contemporary education is poised to enrich the learning experience and empower future generations to tackle the challenges of a rapidly changing world. The Modi government's efforts to revitalise the Indian knowledge system reflect a broader commitment to preserving and promoting India's cultural heritage and traditional wisdom. By embracing indigenous knowledge systems and integrating them into the education framework, the government is laying the foundation for a more inclusive, resilient, and culturally rooted society that draws strength from its rich legacy.

Skill Development Initiatives

Recognising the pivotal role of skill development in fostering economic growth and creating employment opportunities, the Modi government has spearheaded a series of initiatives aimed at empowering youth with relevant skills and enhancing their employability in a rapidly evolving job market. This commitment is underscored by the establishment of a dedicated Ministry for Skill Development and Entrepreneurship, signalling the government's prioritisation of this critical area.

Prime Minister Narendra Modi has been actively involved in promoting skill development, as evidenced by his address at the convocation ceremony of the second 'Kaushal Deekshant Samaroh,' organised by the Ministry of Skill Development and Entrepreneurship. The establishment of Skill India Centres represents a strategic move towards aligning with the evolving needs of various industries, particularly in sectors like media, tourism, hospitality, and IT-ITeS, by providing practical knowledge and training to aspiring professionals.

The launch of over 500 skill development centres across 34 rural districts of Maharashtra by Prime Minister Narendra Modi further underscores the government's commitment to preparing youth in rural areas for employment opportunities. This initiative, known as the Pramod Mahajan Grameen Kaushalya Vikas Kendras, aims to bridge the skill gap and empower rural youth with the necessary competencies to succeed in the job market.

The Skill India Mission, launched in 2015, has been a cornerstone of the government's efforts to

address the skill gap through short-term and long-term training programs spanning nearly 40 sectors. These courses are meticulously designed to equip individuals with practical skills aligned with industry standards, thereby enhancing their employability and reducing the need for additional training by employers.

Under the umbrella of the Skill India Mission, flagship schemes such as the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) have played a pivotal role in imparting short-term skill development training and certification to youth across various sectors, including rural areas. With innovative components like short-term training and recognition of prior learning, PMKVY has established skill development infrastructure through PM Kaushal Kendras and, by October 2023, had trained over 1.40 crore candidates. The Craftsmen Training Scheme, operating through Industrial Training Institutes (ITIs), has witnessed substantial expansion, with over 5000 new ITIs established in the past nine years, offering skill training across various economic sectors.

Furthermore, the National Education Policy 2020 emphasises the integration of vocational education with academic education, promoting interdisciplinary learning and industry-academia linkages. The government's focus on apprenticeship programmes under the National Apprenticeship Promotion Scheme bridges the gap between theoretical education and practical skills, fostering a skilled workforce aligned with industry requirements.

To nurture entrepreneurial aspirations, the government launched initiatives like the Pradhan Mantri Yuva Yojana and Startup India, aimed at

supporting early-stage entrepreneurs and fostering a conducive ecosystem for innovative ventures. Additionally, the establishment of National Skill Development Corporation International and Skill India International Centres reflects the government's commitment to enhancing the global mobility of skilled workers and meeting international standards.

The government's holistic approach to skill development is evident in its collaboration with over 20 central ministries to implement various skilling and upskilling programmes, ensuring comprehensive coverage across diverse sectors and regions. The recent launch of Skill India Digital further demonstrates the government's embrace of digital technology to streamline skilling initiatives and facilitate talent acquisition.

The government's relentless efforts in the field of skill development underscore its commitment to fostering a skilled, empowered, and entrepreneurial workforce capable of driving India's economic growth and competitiveness in the global arena. Through a combination of policy interventions, vocational training programmes, and entrepreneurial support schemes, the government is laying the groundwork for a future-ready India, where every individual has the opportunity to realise their full potential.

Comparative Analysis

A comparative analysis of key indicators from 2014 to 2023 reveals the significant progress made by the Modi government in the education and skill development sectors. This includes an increase in enrolment rates, the expansion of educational infrastructure, and a rise in research output and innovation. Over the period from 2014 to 2023,

the education and skill development sectors in India have witnessed notable advancements under the leadership of the Modi government.

First, enrolment rates across different levels of education have seen a considerable improvement during this period. The government's emphasis on initiatives like the Sarva Shiksha Abhiyan and the Right to Education Act has contributed to enhancing access to primary and secondary education, resulting in higher enrolment rates among children. Moreover, efforts to promote higher education through schemes like the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) have led to an increase in the number of students pursuing tertiary education in colleges and universities across the country.

Second, there has been a significant expansion of educational infrastructure under the Modi government. The establishment of new schools, colleges, and universities, along with the upgrading of existing institutions, has helped cater to the growing demand for quality education. Initiatives like the setting up of Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), and National Institutes of Technology (NITs) have not only increased access to premier educational institutions but have also enhanced the overall quality of higher education in India.

Furthermore, the focus on research and innovation has led to a notable rise in research output and technological advancements during the period under review. The establishment of the National Research Foundation and the promotion of interdisciplinary research have facilitated collaboration between academia, industry, and government agencies, resulting in groundbreaking

discoveries and innovations across various fields. Additionally, initiatives like the Atal Innovation Mission and the establishment of incubation centres have nurtured a culture of entrepreneurship and innovation, fostering the growth of startups and technology-driven enterprises in the country.

In conclusion, the comparative analysis underscores the transformative impact of the Modi government's policies and initiatives in the education and skill development sectors. From improving enrolment rates and expanding educational infrastructure to fostering research and innovation, the government's efforts have propelled India towards becoming a knowledge-based economy and a global hub for talent and innovation. However, challenges remain, and continued focus

and investment will be crucial in sustaining and building upon the progress achieved so far.

Conclusion

The Modi government's reforms in the education and skill development sectors have ushered in a new era of growth and opportunity for India. The reforms have not only revolutionised the teaching-learning process but also foregrounded outcomes and direction in the education section. By prioritising quality, accessibility, and relevance, these reforms have laid the foundation for a knowledge-driven economy that is poised to meet the challenges of the 21st century. However, challenges remain, and continued investment and innovation will be crucial to sustaining the momentum of progress in the years to come.

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Empowering Bharat: 10 Years of the Modi Government An Interview with Shri Jayant Sinha*

Aayushi Ketkar*

Aayushi Ketkar: How do you see the progress India has made in the last decade under the leadership of Prime Minister Narendra Modi?

Jayant Sinha : In the last decade, India has transitioned from being a weak country, unsure of its future, to becoming a very strong rising superpower, confidently advancing towards the vision of Viksit Bharat. This transformation is truly incredible.

Aayushi Ketkar: There has always been this interplay between economics and politics. Perhaps, the economic part is even more crucial because we are a young nation, and we talk of the demographic dividend. Considering this demographic dividend, how do you view initiatives such as Atmanirbhar Bharat, Make in India, and the strong startup ecosystem, as being game-changers?

Jayant Sinha: A lot of us draw inspiration from Kautilya's magnum opus, the Arthashastra, in which Kautilya emphasises that the foundation of a strong state lies in its economic prowess. That is precisely what Prime Minister Narendra Modi has accomplished over the last decade. When we came into power in 2014, India was counted among the fragile five economies, grappling with unstable macroeconomic indicators, raising doubts about

sustained growth. Now, we are among the top five economies in the world and on track to being the top three. This transformation from being a fragile five country to moving towards the top three is indeed extraordinary and is the bedrock for the strength that India possesses today. The esteem and reputation that have come India's way are due to this extraordinary economic transformation.

As you pointed out, given our youthful demographics, ensuring meaningful employment opportunities is paramount. But let me emphasise just five things that have been accomplished over the last decade at a very high level, with respect to our economy. Firstly, we have achieved macroeconomic stability. In 2013, we had a mini balance of payments crisis. The rupee plunged by 14-15%, and there was a real concern about whether India could manage its macroeconomic situation. But over the last 10 years, despite facing various shocks like the COVID-19 pandemic and disruptions in global supply chains due to events like the Ukraine conflict, India has maintained robust growth, with a GDP growth rate of 7-8%, inflation at 4%, and a current account deficit below one percent. Today, investments are rising, every macroeconomic parameter is extremely robust, and the world is looking up to India with great hopes and expectations. Maintaining macroeconomic

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stability, has been a major accomplishment of our government.

Secondly, we have transformed the social security system. Providing free food grains to 800 million people and delivering financial aid directly to bank accounts with minimal leakage showcases the effectiveness of our social welfare initiatives. Thirdly, substantial progress has been made in infrastructure development. The construction of 50,000 to 60,000 km of national highways and landmark projects like the Atal Setu bridge connecting Navi Mumbai with Mumbai, the construction of ports and airports, etc., exemplify this achievement. Fourthly, the rollout of the goods and services tax (GST), has formalised the Indian economy, leading to lower tax rates and increased tax collection efficiency. At present, indirect tax collection as a percent of GDP has gone up by two percentage points, which is huge. The fifth success story is the thriving startup ecosystem and the emergence of over 115 unicorns, signifying a renaissance in India's entrepreneurial landscape, and offering hope for the future. So, in my view, these are the five major accomplishments that have propelled India from fragility to emerging as a top three economy on the world stage.

Aayushi Ketkar: That brings me to the next question, which is the role of youth and women in India's growth story. How do you see this playing out?

Jayant Sinha: Today, the global landscape is characterised by deglobalisation, decarbonisation, and digitisation, all of which pose significant

challenges to job creation. With global supply chains fracturing, it is more difficult now to plug into the global export economy. China had accomplished this earlier, during the globalisation phase, as a result of which it now accounts for 30-40% of the world's manufacturing. That is harder to do when supply chains are breaking down. Today, the stress on decarbonisation, digitisation and artificial intelligence, makes it harder for us to create jobs. Despite these hurdles, India has excelled at generating employment opportunities, particularly for its youth.

The robust growth in formal employment, as evidenced by the EPFO data, which indicates that about 2-3 million high-quality jobs are created every year, reflects this trend. Furthermore, integrating more women into the formal workforce holds immense potential for driving sustained economic growth. While currently, 20-30% of women participate in the workforce, predominantly in informal sectors like agriculture, formalising their participation will fuel growth for decades to come. We have favourable demographics. With a focus on education and skilling, India is well-positioned to harness this potential. We have done extremely well so far, and I am hopeful that we will be able to manage it equally well going forward.

Aayushi Ketkar: The unorganised sector poses a significant challenge to India's growth trajectory. How do you propose bringing it into the organised sector? You rightly said that efforts are being made in this direction, but this is a time-consuming task, and we do not want to miss out on India's growth story.

Jayant Sinha: For an economy to grow, people have to become more productive. That is, for the same inputs, because of the higher skills and improved capabilities of people, there will be increased productivity. This is difficult to achieve in the informal sector because it requires the use of equipment and tools as well as improved skills. This, in turn, would require an infusion of capital, equipment, and skills. So, that is the transformation and the transition that we now have to undertake. The good news is that the Indian economy is gradually becoming more formalised, as indicated by the increase in the number of taxpayers from 98 lakh people before GST to 140 lakh post GST implementation. This is an indication that the formalisation of the work force is moving along very quickly.

We have about 6 crore MSMEs. As the Chair of the Standing Committee on Finance, I have closely monitored the MSME sector. Through the UDYAM portal, we have registered about three and a half crore MSMEs, all of whom now have bank accounts, a PAN number, and a GSTN, and thus they are getting formalised. They have access to credit, and their productivity is increasing. Because we are a very large economy, this transformation is gradual, but the momentum has swung towards that end, and we are steadily progressing towards it.

Aayushi Ketkar: Do you observe a shift from women's empowerment to women-led development? Are we giving impetus to women in the startup ecosystem as we now see a surge of women entrepreneurs and women in key political

roles? Many women of Indian origin have done exceedingly well abroad, like Indra Nooyi. This brings me to another question. How do you see the role of the Indian diaspora adding to India's economic growth, especially through FDIs and investments?

Jayant Sinha: You have correctly identified two extraordinary reservoirs of strength that we have in India. One of course is our women, which, as of now, comprise just about 20-30% of the workforce. Recently, parliament passed the Nari Shakti Adhinyam to reserve a third of our seats in our elected assemblies for women. This is aimed at bringing women into the mainstream and making them feel that they are not only leading but are also defining India's destiny and are absolutely empowered to do so. This is being done through different mechanisms. Increasingly, as we formalise the economy, we are giving women the tools, the equipment, and the access to credit to make them entrepreneurs and leaders. So, this will certainly happen.

India's diaspora, as per some estimates, numbers about 30 to 40 million people and is an extraordinary source of strength for India. Their purchasing power equals the purchasing power of India as a whole. So, it's an extraordinary economic capability that we possess in terms of money, technology, and knowledge sharing that comes into India through the diaspora. Our outreach to the diaspora has been proactive, and because of the infrastructure that we have built and the quality of our cities, it makes little difference if one is working from New York, London, or Paris, or from New

Delhi, Mumbai, or Bengaluru. In addition, initiatives like the privatisation of Air India facilitate easier access for them and foster stronger global ties. Direct flights from major Indian cities to global hubs not only benefit the diaspora but also bolster economic and cultural exchanges, positioning India as an integral part of the global community.

Aayushi Ketkar: Earlier, there used to be a debate between defence and development, the classic “guns versus butter” scenario. However, now we are emphatically pursuing both defence and development concurrently. This approach is bringing about a new India, a stronger India. With our enhanced defence preparedness and modernisation efforts, including the recent strides in defence exports, do you see this bolstering our soft power? Previously, India was renowned for its adherence to rules and other positive soft power attributes. Do you envision this advancement in hard power contributing to how the emerging Bharat or the new Bharat is perceived globally?

Jayant Sinha: I started by quoting Kautilya’s Arthashastra, which states that a strong economy is essential for strong national security. We have demonstrated this. Not only are we strengthening our defence forces, but we are also investing in new technologies such as drones. Because we have economic strength, we can invest in advanced technologies. As our economy grows, so does the amount invested in defence, which further increases our strength. This is not soft power, but hard power. What we follow is what President Wilson said, which is to speak softly but carry a big stick. We exhibited this in our stance on the

Ukraine war, where Prime Minister Modi clearly stated that this is not an era for war. India’s voice is now heard because we can project our hard power very clearly across the world.

There are two more points I wish to emphasise. The first is that we are also enhancing our defence production capabilities through the creation of two defence corridors, one in Uttar Pradesh and the other in Tamil Nadu. Secondly, we are investing in advanced technologies. Through the Innovation Agency, our startups are being enabled to acquire advanced technologies in different fields, such as missile and space technology, drones, advanced munitions, aerospace, artificial intelligence, and cybersecurity. In all of these advanced areas, because we are building up our capabilities, we are able to project a lot more hard power.

Aayushi Ketkar: How do you perceive the “Modi factor” in the upcoming election, where we witness the “Modi guarantee”? How has the exceptional leadership of Prime Minister Modi, both domestically and globally, hastened the recognition of the new India by the world at large? How do you envisage the role of visionary leadership, including that of the younger generation in politics, in shaping this new India?

Jayant Sinha: The best way to think about the extraordinary contribution that the honourable Prime Minister’s leadership has made is to use the Hindi phrase ‘Yug Purush’. The Prime Minister is a once-in-a century figure. He is defining not just India’s growth and development but is also completely repositioning India on the global stage.

His contributions have been extraordinary across multiple domains, which will be long remembered. After centuries, we finally have a chance to position India as a global superpower, and we have a leader like Shri Narendra Modi to take us through this transformation.

Often, there is a debate among historians, whether history is shaped by forces or by individuals—the great forces theory versus the great leader theory. I think, perhaps, both are required. In the case of Prime Minister Modi, it is very clear that great leaders are really, in some ways, able to harness these great forces and turn them to the advantage of the country. This is what we see happening in front of our eyes.

Aayushi Ketkar: Shifting to our final question, what challenges do you foresee for this emerging Bharat, and where do you believe our focus should lie? While sectors like finance, economy, and infrastructure have received considerable attention, areas such as education and health seem to demand more focus. From an academic standpoint, I perceive education as a critical game-changer, alongside the crucial role of the health sector. Could you shed light on the areas you believe require our attention to sustain the momentum of our progress? Additionally, with the advent of Modi 3.0, what trajectory do you anticipate for India?

Jayant Sinha: As I see it, the first five years (2014-2019), were about strengthening and

stabilising India. The subsequent five years, under Modi 2.0, have been about resilience—dealing with challenges like COVID and conflicts while ensuring economic resilience. Looking ahead to Modi 3.0, the next five years will really be about global leadership and India’s emergence in the top three economies globally. We will be able to project both hard and soft power and will be a prime destination for leading global companies.

I am reminded of Prime Minister Harold Macmillan of the United Kingdom, who, when asked what he worried about, famously said, “Events, dear boy, events.” If you ask me what I worry about, it is not internal challenges, as we have a prime minister who can take extraordinary and courageous decisions and has the will to implement them. So our internal challenges will be appropriately addressed. But it is external events that we need to be concerned about, such as the COVID pandemic and the Ukraine war, which can destabilise our economy. So, it is the global macro-shocks that we have to watch out for and manage. The good news is that the honourable Prime Minister and his senior colleagues have been able to manage all such external shocks, and achieve resilience and stability despite them. Therefore, while we are equipped to manage internal issues effectively, we must remain vigilant and proactive in addressing external challenges.

Aayushi Ketkar: Thank you immensely for your insights. Your perspective on the past decade and India’s future trajectory has been invaluable.



Kissinger: Amorality as Realpolitik

Sandhya Jain*

The opening to China, détente and arms control talks with the Soviet Union that resulted in the Strategic Arms Limitation Talks (SALT) in 1969 and later the Helsinki Accords (1975) that secured Europe's borders, and the bombing-cum-secret negotiations with Vietnam that won the Nobel Peace Prize, secured Henry Kissinger his place in history. President Richard Nixon's decision to end the convertibility of the US dollar to gold to cope with domestic economic problems in 1971, while the dollar remained the fiat currency for buying oil, strengthened US dominance in world affairs.

Kissinger's assiduous diplomacy in the aftermath of the Yom Kippur War (1973) coaxed Egypt-Israel talks and paved the way for a peace agreement between the two countries. More pertinently, his Middle East diplomacy elbowed Moscow out of the region for decades, until President Vladimir Putin deployed the Russian air force in the Syrian civil war in 2015. Moscow has since taken a high profile in the Gulf and in Africa.

Kissinger's amoral foreign policy initiatives were often stiffly opposed by his State Department colleagues, but his proximity to Nixon helped him overcome all resistance. Under his direction, the United States supported brutal dictators in Chile, Vietnam, Cambodia, East Timor, and West Pakistan, and turned a blind eye to Turkey's invasion of Cyprus. At the same time, he cynically crafted

"human rights" as a tool to hound third-world nations to conform to US expectations.

China

The desire for an opening to Communist China has long been cited to explain Kissinger's unwavering support to Islamabad in the slaughter of nearly three million East Pakistani civilians by the Army in the spring of 1971. Gen. Yahya Khan was secretly helping the Nixon administration to establish contact with China to create a schism between Moscow and Beijing, and create a rival Asian power on Russia's southern border. Fifty years later, this seems less impressive as successive crises have forced Russia to rediscover its Asian roots; the Moscow-Beijing relationship is tighter than ever; and China has emerged as a formidable rival to the United States with its ambitious Belt & Road Initiative (BRI).

Ironically, the Pakistan crisis was triggered by Gen. Yahya Khan presiding over the fairest election in Pakistan in December 1970, whereby the Awami League of Sheikh Mujibur Rehman won the majority of seats. The results were rejected by foreign minister Zulfikar Ali Bhutto; the subsequent crisis led to a massacre of Bengalis in East Pakistan, war with India, and the emergence of a new nation: Bangladesh.

The crisis saw the Nixon administration "tilt" toward Pakistan; the US aircraft carrier Enterprise

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was sent to the Bay of Bengal and China was nudged to make military moves against India, with the promise of US support if the Soviet Union came to India's rescue. But Chairman Mao refused the bait, and the wider confrontation between the United States and the Soviet Union failed to materialise.

In East Pakistan, the army's rampage against Bengali dissidents and civilians alarmed the US Consulate General in Dacca (Dhaka); most notable was the shooting of unarmed students at Dacca University. But Nixon and Kissinger were unmoved, even though most members of the Consulate General in Dacca signed a dissent channel message to Washington on April 6, urging the US Government to condemn the genocide. Consul General Archer Blood endorsed the dissent; he was later transferred from Dacca. Archer Blood's warnings to Washington were documented in Gary Bass' book, *The Blood Telegram* (2013), which exposed the devious calculations of President Nixon and his Secretary of State, Henry Kissinger.

As millions of refugees from East Pakistan poured into India, the State Department suggested exerting pressure on Islamabad to restrain the army and set up a regional civil administration to check the flow of refugees and calm Bengali sentiments. Nixon responded with handwritten instructions: "To all hands. Don't squeeze Yahya at this time." On May 7, Kissinger met the US ambassador to Pakistan, Joseph Farland, in Palm Springs, California, and informed him about the opening to China, including Kissinger's proposed trip in July 1971.

Washington was unmoved by India's concerns.

In June, Nixon and Kissinger met Foreign Minister Swaran Singh in Washington and urged non-intervention in return for USD70 million in humanitarian assistance to compensate for the refugees. Singh responded that the fundamental question was how to stop the flow of refugees (eventually estimated at ten million).

Kissinger again pressed for Indian restraint in his meeting with Prime Minister Gandhi in New Delhi on July 7. He then went to Pakistan, from where he made his legendary trip to Peking (Beijing) on July 9. In China, Chou En-lai told Kissinger that China would support Pakistan in a confrontation with India.

Washington viewed the India-Soviet treaty of peace, friendship and cooperation (August 9) as open support to New Delhi. In a meeting with Soviet Foreign Minister Gromyko in Washington on September 29, Nixon urged Moscow to help restrain India from war. Gromyko opined that Pakistan needed to be curbed. In November, Prime Minister Gandhi visited Washington and other foreign capitals to garner support for India's position. Nixon informed her that war between India and Pakistan was unacceptable to the United States. Gandhi denied sponsoring Mukti Bahini guerrillas and dismissed suggestions that Indian forces were poised for conflict. Despite two meetings, she did not respond to Nixon's proposal for a mutual withdrawal. Exchanging views on the visit, Kissinger said, "the Indians are bastards anyway. They are plotting a war."

The war began on November 22 but was formally declared on December 3, when Pakistan opened a front from West Pakistan, attacking six Indian airfields in Kashmir and the Punjab and

shelling border areas. Nixon withheld USD90 million in pending aid to India. Kissinger urged Soviet chargé d'affaires Yuli Vorontsov (December 5) to restrain India. He said the United States viewed the situation in South Asia as a “watershed” in US-Soviet relations. Nixon underlined these points in a letter to Brezhnev on December 6, warning that if India achieved its ends militarily, with Soviet support, it would adversely impact US-Soviet ties. Kissinger believed India intended to break up West Pakistan. Eventually, Pakistani forces surrendered in East Pakistan on December 16 and India announced a cease-fire, which was accepted by President Yahya Khan.

Vietnam and Cambodia

The Vietnam War was a legacy of President Lyndon B. Johnson (Democrat). Kissinger was negotiating peace with North Vietnam in Paris, but delayed the accord to help Richard Nixon (Republican) win the election. When Nixon became President in 1968, Kissinger changed sides and became Nixon’s most important foreign policy adviser. He carried on the negotiations while the US was still bombing North Vietnam.

Kissinger informed Melvin Laird, Secretary of Defense, that President Nixon had ordered the secret bombing of Cambodia (March 15, 1969), in the belief that the shock would force North Vietnam back to the Paris peace talks (March 18, 1969). South Vietnam President Nguyen Van Thieu had already agreed to private talks (March 17, 1969). The secret bombing raids continued for a year.

After Seymour Hersh of the *New York Times* broke the story of the secret bombing of Cambodia, Nixon and Kissinger directed FBI Director J. Edgar

Hoover to begin telephone surveillance on four US officials suspected of the leak (May 12, 1969). Hoover provided information on three persons, viz, London *Sunday Times* reporter Harry Brandon; Kissinger’s former aide Morton Halperin, and State Department official William Sullivan. However, the source of the leak was never identified.

Harry Brandon’s wife was taped speaking about opposition to Kissinger’s Vietnam policies among his former Harvard colleagues. Morton Halperin was planning to quietly resign from the White House staff after stepping down as a top specialist on Kissinger’s NSC. William Sullivan’s phone taps revealed that Ambassador Averell Harriman was planning to host a gathering at his home of State Department officials who had signed a letter of protest against the secret bombing of Cambodia. The FBI used this information to spy on the meeting at Harriman’s house; this was revealed in congressional hearings on the wiretap scandal four years later.

The Peace Agreement won the 1973 Nobel Peace Prize for Kissinger and North Vietnam leader Le Duc Tho. But the war did not end and Le Duc Tho refused to accept the prize because Kissinger had violated the truce he had agreed to when Hanoi was bombed on Christmas 1972.

Interestingly, Kissinger’s secret taping system recorded a late-night call from wire service reporter Ken Fried who informed him about the fall of Saigon and General Duong Van Minh’s unconditional surrender to the Viet Cong (North Vietnam’s People’s Liberation Armed Forces). Kissinger instinctively asked, “Is it true?”, and then tried to disguise the fact that he was unaware that the Vietnam War had finally ended in Washington’s

defeat and the victory of the Viet Cong Communists (April 29, 1975).

The Vietnam War had a host of critics. Seymour Hersh, who won the Pulitzer Prize for exposing the My Lai massacre in Vietnam, noted that Kissinger never hesitated to dump those who “did dirty work for him” and became inconvenient. John Lavelle, a four-star Air Force general, was publicly sacked and demoted after he admitted authorising Air Force crews in Thailand to conduct bombing missions on unauthorised targets in North Vietnam.

Urged by Otis Pike, a New York Democrat on the House Armed Services Committee, to seek Lavelle’s version of events, Hersh met the general in Maryland. During their discussions, Hersh concluded that Lavelle had been given backchannel orders for the illegal bombing from Kissinger and Nixon because they wanted to covertly expand the war against North Vietnam.

Lavelle (d. 1979) never spoke on record and remained loyal to the White House. Later, Kissinger’s White House tapes revealed chats between Nixon and Kissinger about Lavelle’s plight. Nixon expressed unhappiness, “I don’t want him to be made a goat,” while Kissinger urged Nixon to stay out of the controversy. Nixon agreed but showed remorse, “I do not want to hurt an innocent man.”

Not everyone admired Kissinger or his grandiose views on shaping the world. President Barack Obama said he had devoted much of his tenure trying to repair the world Kissinger had left. “We dropped more ordnance on Cambodia and Laos than on Europe in World War II,” (*The Atlantic*, 2016) “and yet, ultimately, Nixon withdrew, Kissinger went to Paris, and all we left

behind was chaos, slaughter and authoritarian governments that finally, over time, have emerged from that hell.” Obama said that while in office he tried to help countries “remove bombs that are still blowing off the legs of little kids.” Quite an indictment.

Chile

Kissinger’s intolerance of democratically elected communist governments led him to plan the overthrow of Salvador Allende in Chile. CIA documents reveal that in the weeks preceding Allende’s swearing-in, Kissinger supervised covert operations for a military coup that resulted in the assassination of Chile’s army chief, General René Schneider, on October 25, 1970.

Unfazed, Kissinger coaxed President Nixon to reject the State Department’s advice to build bridges with Allende and to authorise covert intervention to “intensify Allende’s problems” so that his government collapsed. “It was vital,” Kissinger wrote in a memorandum, “that the world’s first freely elected Marxist government must not be allowed to succeed”. Eventually, Allende was overthrown on September 11, 1973.

When Gen. Augusto Pinochet took over, Kissinger moulded US policy to help him consolidate his brutal regime. On complaints by his deputies of human rights atrocities, Kissinger retorted, “I think we should understand our policy - that however unpleasant they act, this government is better for us than Allende was.” Privately meeting Pinochet in Santiago at a conference of the Organization of American States in June 1976, Kissinger said, “You did a great service to the West in overthrowing Allende.”

Raul and Rene Schneider, sons of Gen. Rene Schneider, filed a civil lawsuit against Henry Kissinger and the US government for the “wrongful death” of their father on September 10, 2001. The suit was amended in November 2002, citing declassified US records as evidence of liability in the case. But, the judges ruled that Kissinger had immunity for actions undertaken as part of his official responsibilities as national security advisor to the President.

Kissinger was adamant that the US should not berate friendly military regimes for their human rights record, including assassinations abroad. This gave immunity to Gen. Pinochet in Chile, Gen. Videla in Argentina, and junta officers in Uruguay. Soon afterwards, former Chilean ambassador Orlando Letelier and his young colleague, Ronni Moffitt, were killed in a car bomb planted by Pinochet’s agents in downtown Washington, D.C.

Argentina

Kissinger’s distaste for human rights grew in proportion to the US Congress passing laws restricting US aid to regimes that violated human rights. He rebuked Assistant Secretary Harry Shlaudeman on learning that the State Department’s Latin America Bureau had issued a demarche to the Argentine military junta for growing death squad operations, disappearances and reports of torture after the March 1976 coup (June 30, 1976).

The demarche contradicted Kissinger’s message to Foreign Minister César Guzzetti during a private meeting in Santiago on June 10, to act “as quickly as possible” to repress leftist forces in Argentina. At a secret meeting with Guzzetti at

the Waldorf Astoria Hotel in New York City, in October 1976, Kissinger reiterated his support for the action against the left: “The quicker you succeed the better.”

East Timor

Kissinger supported Gen. Suharto’s decision to invade East Timor in December 1975; between 100,000 to 180,000 Timorese were massacred. On the eve of the invasion, Kissinger accompanied President Gerald Ford to Jakarta to discuss US-Indonesia security cooperation with Suharto.

There, amidst a discussion on guerrilla movements in Thailand and Malaysia, Suharto mentioned his plans for “rapid or drastic action” against the newly independent country. Both Ford and Kissinger supported the invasion. Kissinger stressed, “It is important that whatever you do succeeds quickly.” (December 6, 1975)

Conclusion

A great admirer of Bismarck and Metternich, Kissinger respected American statesmen and diplomats such as Dean Acheson and George F. Kennan. He said Kennan had all the conceptual tools for shaping American foreign affairs, but lacked the ability to translate them into action. This was a gap he aspired to bridge, according to Jacob Heilbrunn, editor, *The National Interest* and non-resident senior fellow at the Atlantic Council’s Eurasia Center. Kissinger rose to the peak of power in Washington, a testimony to the rise of Jews in the Protestant establishment after World War II. He went to Harvard, joined the Council on Foreign Relations, and was an adviser to Nelson Rockefeller, the titular leader of the Eastern

Establishment wing of the Republican Party.

His policy of amoral realpolitik in Vietnam, under Presidents Nixon and Ford, was widely despised by the right and the left. However, the Nixon-Kissinger policy of détente served to erode Soviet power. The notion that the arms race must be limited was very sound. Without détente, the Soviet Union may not have collapsed peacefully between 1989-1991. Kissinger dubbed it an “indispensable prelude” to the Reagan era.

Henry Kissinger maintained an exhaustive record of the memos and memcons he wrote or read regarding the secret deliberations, operations, and policies of his time at the White House and Department of State. He marked the voluminous telcons (daily transcripts of conversations he secretly recorded and had his secretaries transcribe) as “personal papers” and took them with him on demitting office in 1977. Careful selections were used to write his memoirs. The National Security Archive pursued these records for several decades and finally compelled the US government to recover them by drafting a lawsuit. This made a major repository of records of US

foreign policy in the 20th century accessible to scholars. The documents reveal a different facet of Kissinger’s legacy and its appalling impact on the lives of peoples of Southeast Asia and Latin America.

As the first quarter of the twenty-first century comes to a close, a multipolar world order seems irreversible. The growing axis of Iran, Russia and China indicates the emergence of a new anti-NATO grouping. North Korea’s joining this ‘bloc’ could produce a formidable military alliance with an impressive array of weapons, advanced technology and military experience. China and Russia are already committed to jointly developing high military technology. Iran has received advanced Su-35 warplanes from Russia, and North Korea received its first satellite with Russian help. Russia, with 60 per cent of the world’s nuclear weapons, will be the fulcrum of this group.

The emerging world order is thus a far cry from the one envisaged by Kissinger and his patron-President, Richard Nixon, in which Pax Americana was to rule the waves far into the foreseeable future.

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