A Roadmap for Viksit Bharat 2047: Themes, Gaps, and Policy Interventions

***Pankaj Kulkarni**

ABSTRACT

It's just over a decade left for 2047 , India's centenary of independence, to this end it is focusing on ambitious goals of achieving a status of developed country, high human development and a global leadership in technology and climate action. Thus, in context the term Viksit Bharat encapsulates these ambitions namely economic prosperity, wide coverage of human capability, use of resources in sustainable manner, technology leadership and a transparent and effective governance.

This paper presents a vision for a Viksit Bharat (Developed India) by 2047, and maps the policy, institutional and societal pathways needed to realize it. The research analyses recent government vision documents, policy analyses, and academic literature to define how India should look across five themes — Human Development (empoweredIndians), Thriving and Sustainable Economy, Innovation, Science & Technology; Gratifying Governance and Security and India;s role in the World. For each theme the paper outlines the 2047 end-state, current gaps, enabling actions, metrics for progress, and policy recommendations. The paper concludes with prioritized short-, medium-, and long-term interventions that together form a practical roadmap to Viksit Bharat.

Keywords:- Viksit Bharat, India 2047, Amrit Kaal, Development Strategy, R&D, Sustainability, Governance**.**

*Pankaj Kulkarni, Assistant Professor – Marketing, FPM Scholar, Chetana's Institute of Management and Research, Mumbai, Maharashtra.

I. INTRODUCTION

It's just over a decade left for 2047, India's centenary of independence, to this end it is focusing on ambitious goals of achieving a status of developed country, high human development and a global leadership in technology and climate action. Thus, in context the term Viksit Bharat encapsulates these ambitions namely economic prosperity, wide coverage of human capability, use of resources in sustainable manner, technology leadership and a transparent and effective governance.

An attempt is made in this paper to address the question – How should Viksit Bharat look in 2047 , whereby the term Viksit Bharat should not only rely on mere economic growth but a variety of factors.

Dr Amartya Sen's Human Development Paradigm states that the primary goal of development is the expansion of people's freedoms and capabilities to lead lives they value, rather than merely the

growth of GNP or income levels. Economic growth is seen as a means to human development, not an end in itself (Fukuda-Parr, 2003)

Human development, Innovation Science & Technology, Flourishing and Sustainable Economy, Gratifying Governance and Security and India's role in the World.Each of the factors does have their role in contributing towards making a Viksit Bharat

1. **Empowered Indians**

Population is the foundation of a nation, and its development depends on empowering citizens. Empowered Indians are those who are educated, skilled, healthy, and economically and socially self-reliant. Human development, along with gender equality and equal opportunity, is central to India's transformation into a developed nation.

2. **Flourishing and Sustainable economy**

A developed nation requires a productive, environmentally sustainable, and resilient economy, as growth alone is insufficient. India must create jobs, promote equality, and protect natural resources. Economic dynamism will determine its ability to sustain high living standards and remain globally competitive

3. **Innovation, Science and Technology**

Innovation drives a country's competitiveness, productivity, and problem-solving. For India to become a developed nation, it must create technology rather than just use it. Achieving this requires substantial investment in the start-up ecosystem, digital infrastructure, and research, which are crucial for economic transformation and self-reliance,

4. **Gratifying Governance and Security**

Governance refers to the structures, processes, and systems guiding and controlling businesses, institutions, and society, encompassing decision-making, implementation, and accountability. Efficient, transparent, and citizen-focused governance ensures stability, fairness, and trust, reduces corruption, and fosters confidence in institutions, driving sustainable national development.

5. **India's role in World**

India, currently the 4th largest economy, is on track to become the 3rd largest by 2030. As a developed nation, it must play a proactive political, economic, and ideological role globally, leveraging its status as the world's largest democracy to influence international norms and bridge developed and developing nations. This paper proposes a Viksit Bharat 2047 framework, integrating human resources, productive capacity, institutional quality, innovation systems, and global engagement, drawing on government visioning initiatives, the Amrut Kaal policy framework, and research on growth, innovation, and sustainability to form an evidence-based roadmap toward 2047.

II. LITERATURE REVIEW

Vision Documents and National Framing

NITI Aayog's Vision India @2047 and Viksit Bharat policy papers outline development goals centered on inclusive human development, innovation-led growth, and sustainability, integrating sectoral priorities with institutional reforms to enable private-sector–led job creation (Virmani, 2024).

Governance, Amrit Kaal and Panch Pran

The Amrit Kaal framework identifies the next 25 years as critical for nation-building, while Panch Pran emphasizes transparency, delivery, and citizen-centric governance. Literature highlights ICT-enabled e-governance as key to scaling services and reducing transaction costs for equitable progress.

Innovation, R&D and Knowledge Economy

Policy assessments and academic studies stress strengthening R&D, innovation, and start-up ecosystems through higher public–private investment, stronger industry–academia linkages, and development of deep-tech capabilities (Chakraborty & Karandikar, 2025).

Sustainability and Energy Transition

Research highlights the trade-offs between growth and decarbonization, noting that achieving Viksit Bharat goals alongside India's net-zero 2070 commitment requires rapid energy expansion with accelerated adoption of non-fossil sources (Singh, 2023).

Geopolitics and Global Role

Studies indicate India's expanding role in the Global South, multilateral institutions, and technology diplomacy, with platforms such as BRICS, strategic partnerships, and South–South cooperation enhancing its trade, influence, and leadership (Imam, 2025).

III. METHODOLOGY

The research paper is based on policy analysis and scenario driven research paper , it is based on publicly available official documents , policy reports , industry studies and some peer reviewed literature, wherever required the evidence based targets (Like for example – R & D Spending, Energy Mix etc) are drawn from targeted commitments form Government

Analysis and Viksit Bharat vision 2047

Table 1 - India's Key Trajectory & Targets

Metric	Current Status/Latest Data	2030 Projections/Targets	2047 Projections/Targets
GDP Growth	7.8% (Q1 FY25-26)	~$7.3 Trillion (Nominal GDP)	~$25-30 Trillion (Nominal GDP)
R&D Intensity (% of GDP)	~0.64% (2020-21)	Target of 1% (or ideally 3%) suggested by experts, but no official 2030 target found	Target of 3% suggested by experts
Human Development Index (HDI)	0.685 (2023 value), Medium HDI category, Rank 130/193	Achieve the threshold for "High Human Development" (HDI ≥ 0.700)	Improve human capital and living standards to reach upper-middle-income status
Energy Mix	46.8% non-fossil fuel capacity	50% electric power capacity from non-fossil fuels; 500 GW non-fossil fuel capacity	1,800 GW installed non-fossil capacity; Net-zero emissions

Sources - https://www.pib.gov.in/PressRelease(13th Nov 2024) , www.adani.com/newsroom , www.undp.org/india/press-releases (6th May 2025), https://www.pib.gov.in/PressRelease(31st Jan 2025) ,www.indiadatmap.com

The table above depicts the trajectory and targets India wants to reach in order to have status of developed nation. The factors which will lead to there are being analysed below

3.1. Empowered Indians

In order to reach a near universal human capabilities India needs to address the present situation and work on it .However there exists gaps currently which are given below

Current Gaps

Female labour-force participation remains well below potential at **37%** (World Bank, 2024). Health coverage has expanded but shows wide quality disparities across states and rural–urban areas (NITI Aayog, 2021). Despite higher enrolment, learning outcomes in basic literacy and numeracy remain weak in many regions (ASER, 2023). Digital divides persist in access and effective use, particularly among older adults and marginalized groups (MoHFW, 2021; UNICEF India, 2023).

What we need to do

a. Transform education outcomes (learning-first approach):

Shift from access-centred targets to learning-centred systems by prioritising early childhood development, foundational literacy and numeracy under NEP 2020, and continuous assessment. Only 50% of rural Std V children can read a Std II text and 43% can do basic division, showing weak learning outcomes despite higher enrolment. (ASER, 2023) .

Scale ICT-enabled adaptive learning alongside strong in-person pedagogy, with foundational learning emphasised for long-term productivity. (Niti Aayog, 2024)

b. Universal, high-quality primary healthcare plus preventive care:

Health outcomes vary widely across states, and preventive and digital health systems are essential for resilience and productivity. Expansion of primary health networks, digital health records, telehealth, community health workers, public health surveillance, and preventive care—especially for non-communicable diseases—is required. (NITI Aayog, 2021)

c. Skilling for the future & lifelong learning:

Young employability remains low at 51.25%, indicating persistent skill gaps. (Wheebox et al., 2024)

The gig workforce is projected to grow from 7.7 million in 2020–21 to 23.5 million by 2029–30, while apprenticeship participation remains extremely low at 0.1% of the formal labour force compared to ~4% in OECD countries. (Gayithri, Malini & Rajasekhar, 2019; IWWAGE, 2023; economic times)

India therefore needs a national lifelong-skilling framework with micro-credentials, industry-validated pathways, apprenticeships, and portable benefits for gig and informal workers.

d. Women's economic participation:

Meaningful empowerment requires combining supply-side measures such as targeted skilling and vocational training with demand-side reforms including procurement quotas, tax breaks, and subsidies for women-led businesses. (World Bank, 2024; IWWAGE-TQH, 2023)

Progress is visible, with government procurement from women-led MSEs reaching 2.82%, close to the mandated 3% target. (LiveMint, 2025)

e. Digital inclusion:

Nearly 40% of the population still lacks meaningful internet access, particularly in rural areas and older age groups, highlighting the need for affordable broadband, universal digital identity, and privacy safeguards. (TRAI; NICI report)

Over half of rural households report not knowing how to use the internet, underscoring the need for targeted digital literacy programs using initiatives such as PMGDISHA and peer-training models. (CEDA, 2025)

2. Thriving and Sustainable Economy

An India with diversified productive capacity, manufacturing and services with advanced value-added activities, a robust MSME sector integrated into global value chains, resilient green energy systems, and inclusive, high-quality jobs across skill levels will be needed

Current gaps

• World Bank's *India Country Economic Memorandum* (2024) notes that GDP per capita remains far below high-income countries, reflecting incomplete structural transformation.
• *EY / CII Report on Viksit Bharat 2047* ("Eigenvectors of Net-Zero Energy Transition", Sept 2025) highlights rapidly rising energy demand and the need for a massive expansion of non-fossil energy to decarbonize growth.
• A NITI Aayog report identifies wide productivity heterogeneity across MSMEs, worsened by limited access to formal finance and risk-perception barriers, while the World Bank emphasizes that improving SME finance is critical for local investment and productivity.

What we need to do

a. Industrial strategy for high-value manufacturing & services: NITI Aayog recommends sectoral cluster development, including brownfield auto-component clusters with shared R&D and testing infrastructure supported by fiscal incentives (NITI Aayog, as reported in Economic Times, 2025). It is also promoting pharma and medical device parks under the PLI scheme to strengthen domestic production and exports (NITI Aayog, 2021). These initiatives are essential to reduce import dependence and advance Atma Nirbharta in pursuit of Viksit Bharat.

b. MSME modernization & finance**:** Digital credit platforms such as OCEN, built on India Stack, are expanding cash-flow-based lending and reducing underwriting costs for MSMEs (I.E.E.F.A, 2024). NITI Aayog further calls for risk-sharing through credit-guarantee reforms and technology adoption subsidies, stressing blended finance to drive digitalization and automation in MSMEs (NITI Aayog, 2025, as referred in ET Government).

c. Green energy & infrastructure transition**:** A joint EY–CII analysis estimates that achieving Viksit Bharat 2047 requires a 40-fold increase in non-fossil energy supply alongside a tripling of primary energy demand, necessitating rapid scale-up of renewables, energy storage, smart grids, transport electrification, and investments in hydrogen and battery technologies (EY & CII 2025, September, *India needs 40x clean energy surge for Viksit Bharat 2047*).

d. Tax & fiscal reform**:** The Reserve Bank of India stresses widening the tax base and strengthening digital compliance systems to improve revenue collection (Reserve Bank of India, 2024). The RBI State Finances Report also warns that rising subsidies are crowding out productive investment, urging rationalization to create fiscal space for human capital development and infrastructure (the print.in, 2024).

3. Innovation, Science & Technology (R&D, Digital, Startups)

In order to achieve a developed country status India needs to focus itself on becoming a global innovation hub in multiple domains – AI , Biotehc , Space etc aptly supported by public and private funding , and universities focusing on advanced research .

Current gaps

• India's gross expenditure on R&D is about **0.64% of GDP**, far below the OECD average of ~2.7%, highlighting the need to scale both public and private R&D investment (Economic Times, 2024). Achieving global technology leadership will require aggressive R&D expansion supported by coordinated public–private action (New Indian Express, 2025).
• Access to risk capital for deep-tech startups remains constrained due to limited patient, long-term funding (Inc42, 2025), while Indian deep-tech firms receive only a fraction of the median global investment, restricting their ability to scale (Business Standard/NASSCOM, 2024).

What we need to do

a. Raise national R&D intensity**:** Public R&D investment remains low at around 0.75–1.0% of GDP, with private R&D contributing only ~0.25%, prompting expert recommendations to raise GERD to 1.5–2.5% of GDP through phased targets, tax credits, and matching grants (DST Working Group Report, 2024; PRS India, 2024). India must significantly expand public R&D budgets, especially in future technology domains.

b. Strengthen research universities & translational ecosystems**:** NITI Aayog calls for sustained funding, improved research infrastructure, and structured industry–academia collaboration, including faculty sabbaticals and research leave, to boost R&D productivity (NITI Aayog, 2024). To support this, a national network of translational research and commercialization centres is needed to ensure effective lab-to-market transfer of publicly funded research.

c. Regulatory frameworks for frontier technologies**:** Policy experts recommend developing principle-based, risk-adaptive regulatory frameworks for AI grounded in "do no harm" ethics, with sector-specific flexibility and strong institutional capacity to balance innovation and societal safety (Saran, Nandi & Patil, 2024; MeitY, 2025).

This approach will support responsible innovation, strengthen technological leadership, and promote sustainable and inclusive growth.

.4. Gratifying Governance and Security

A governance architecture which is transparent, accountable and citizen centric underpins the delivery. Security is a matter which is comprehensive matter and combines internal stability, top notch infrastructure,cyber security and a modern technologically advanced defence position which is consistent with global responsibilities.

Current gaps:

Administrative capacity differs markedly across Indian states and local bodies, with governance reform reports noting persistent staff vacancies and uneven service delivery (SKOCH, 2024; Janaagraha,2024).

At the same time, cyber threats targeting critical infrastructure are on the rise, but system-wide cyber security maturity remains weak, prompting calls for scaling protective measures (Tech Observer, 2025; DSCI, 2025**)**

What we need to do:

a. **Scale e-governance & service delivery:** Digitize service delivery end-to-end, apply process re-engineering, and measure outcomes (citizen satisfaction, time to service).

b. **Strengthen local governance:** Empower municipalities and panchayats with fiscal autonomy, capacity building, and citizen participation mechanisms.

c. **Cyber and critical infrastructure security:** Develop national capability centres, public–private collaboration, and mandatory resilience standards for critical sectors.

d. **Integrated national security approach:** Continue modernization of defence capabilities while investing in human security like say for example social cohesion to have unity.

5. India in the World

Over the years, India's global influence has grown multifold, becoming a major technology partner and responsible economic power with a voice that shapes global governance and reflects both national and global interests. India can leverage this position to capitalize on emerging opportunities.

What we need to do

a. Strategic economic diplomacy: India has expanded global cooperation through concessional finance, capacity-building, technology partnerships, and trade preferences under frameworks such as SSTC (South-South Connect, UN WFP). This can be leveraged to build global partnerships that benefit the nation.

b. Technology diplomacy: India's young demographic can drive the export of digital public infrastructure models, participation in global AI/tech governance, and the formation of normative coalitions on data governance and ethical technology.

c. Climate leadership with equity: India's net-zero target of 2070 shapes its climate diplomacy. The nation should pursue ambitious adaptation and mitigation strategies while emphasizing finance and technology transfer to developing countries, enhancing India's global role.

IV. FINDINGS

Interdependence of themes: It is observed that Human development, Economic structure,innovation, governance compliance and global engagement are mutually reinforced. Any gain in one area will accelerate other while neglecting any single area will constrain the overall development

Scale & speed are both necessary: In order to achieve Viksit Bharat by 2047 India requires rapid improvements in coverage of services, scale of R&D, energy capacity and in focus on learning outcomes, governance effectiveness, research excellence.

Women's participation and MSME modernization are high-leverage levers: Increase in Female labour force participation and modernizing MSME yield have outsized socio economic returns, expanding the labour pool and accelerating inclusive growth.

Governance digitalization is an enabler: E-governance and digital public goods drastically reduce transaction costs and improve access, butthese must be paired with strong privacy, inclusivity, and offline alternatives.

V. SUGGESTION

1. **Mission-oriented agencies:** Create or empower agencies for strategic missions (like National Green Energy Mission, National Deep Tech Mission) with clear mandates, long-term funding, and outcome-based metrics.

2. **Public–private partnerships (PPPs):** Use PPPs for large infrastructure and R&D commercialization projects with risk-sharing mechanisms.

3. **State-level compacts:** Tailor implementation plans to state strengths, using performance-based central transfers.

4. **Human capital tax credits:** Offer tax credits for firms that invest in accredited upskilling and apprenticeships.

5. **Resilience funds:** Create contingency funds for climate and economic shocks to preserve development momentum.

VI. LIMITATIONS OF THIS RESEARCH

This paper is a synthesis combining policy documents, analytical reports and academic literature as based on public materials. It does not include original primary data collection. The policy landscape and international environment are dynamicas precise quantitative targets (e.g., energy mixes, R&D percentages) require repeated calibration with evolving data and techno-economic analysis.

VII. CONCLUSION

Viksit Bharat 2047 is ambitious but achievable through coordinated action across human development, productive transformation, technology capability, governance reform, and global engagement. The key enablers are scalable human capability building, significant R&D and technology advancement, and a green energy transition. With clear targets, independent monitoring, state-level customization, and mission-oriented interventions, India can transform its demographic dividend into lasting developmental gains and global leadership by 2047.

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