

Post-1991 Economic Reforms and Human Capital Formation in India: Education, Health, Agriculture, and Industry

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Introduction

Since independence, India's development strategy has focused on achieving economic growth alongside social justice through state-led welfare policies and public investment in education, health, agriculture, and industry. Human capital formation was viewed as central to nation-building, poverty reduction, and inclusive development, as reflected in the Constitution of India and the Directive Principles of State Policy.

However, structural economic challenges in the late 1980s led to the adoption of the New Economic Policy in 1991, based on Liberalization, Privatization, and Globalization (LPG). These reforms aimed to reduce state control, promote private sector participation, and integrate India into the global economy. While post-1991 reforms accelerated economic growth and expanded markets, they also reduced the welfare role of the state and weakened public investment in human development sectors.

The post-liberalization period has been marked by rising income and wealth inequality, regional disparities, and unequal access to quality education, healthcare, and employment opportunities. Human capital formation—through education, health, agriculture, and industry—remains essential for sustainable and inclusive growth, yet market-driven development alone has proven insufficient in addressing deep-rooted social and economic inequalities.

This paper examines the impact of post-1991 economic reforms on human capital formation in India, focusing on education, health, agriculture, and industry. It argues that achieving the goal of *Viksit Bharat 2047* requires rebalancing economic growth with stronger public investment, effective regulation, and inclusive governance.

Education

Education is a fundamental right under the Indian Constitution, guaranteed through Article 21A, which mandates free and compulsory education for children between the ages of 6 and 14 years. Education plays a critical role in enabling individuals to realize their full potential while simultaneously promoting social mobility, economic productivity, and democratic participation. It equips individuals with essential skills, knowledge, values, and critical thinking abilities necessary for personal development and national progress. Education also fosters social equality and cultural understanding, serving as a cornerstone for innovation and advancement in science, technology, governance, and the arts. Recognizing its importance, Sustainable Development Goal (SDG) Target 4.7 highlights quality education as a key driver of sustainable development, emphasizing lifelong learning, global citizenship, and inclusive education systems. From the perspective of human capital theory, education enhances the productive capacity of individuals, leading to higher earnings, improved employability, and greater national income. In a diverse and unequal society like India, education also functions as a powerful instrument of social transformation by enabling historically marginalized groups—such as Scheduled Castes, Scheduled Tribes, minorities, and women—to overcome structural disadvantages. Consequently,

sustained public investment in education has been central to India's post-independence development strategy.

Impact of Post-1991 Liberalization on Education

The economic liberalization reforms initiated in 1991 significantly transformed India's education sector by encouraging privatization, commercialization, and market-oriented curricula. As part of the broader shift toward a neoliberal economic framework, the role of the state in education gradually shifted from that of a direct provider to that of a regulator and facilitator. The private sector expanded rapidly, particularly in higher education and professional courses such as engineering, management, information technology, medicine, and allied health sciences.

This period witnessed the proliferation of private universities, deemed universities, self-financing colleges, and coaching institutions. Public-private partnerships (PPPs) and foreign collaborations became more common, reflecting the increasing integration of Indian education with global knowledge and labor markets. While these changes increased capacity and diversity in the education system, they also raised concerns regarding equity, affordability, and quality assurance.

Pros of Post-Liberalization Education

One of the most significant outcomes of liberalization was the rapid expansion of private, self-financing educational institutions. These institutions often provided superior physical infrastructure, advanced laboratories, digital learning tools, modern classrooms, and industry-oriented training programs. As a result, access to higher education expanded considerably, as reflected in the rise in the Gross Enrolment Ratio (GER) from 65.38 percent in 2001 to 74.04 percent by 2011.

Another positive impact was the adoption of market-responsive and skill-oriented curricula aligned with global employment demands. Courses in information technology, data analytics, management, finance, biotechnology, and engineering gained prominence, enabling India to emerge as a global hub for software services, IT-enabled services, and skilled professionals. The availability of technically trained human resources played a crucial role in India's success in sectors such as information technology, pharmaceuticals, and services exports. Private sector participation also introduced competition and innovation in the education sector. Many institutions adopted outcome-based education, industry internships, campus placements, and international accreditation standards. This competitive environment exerted pressure on public institutions to improve governance, accountability, and academic performance.

Cons of Post-Liberalization Education

Despite these benefits, the commercialization of education has generated serious structural challenges. Private institutions often prioritize profit maximization over academic excellence and social objectives, transforming education into a commodity rather than a public good. High tuition fees and hidden costs have made quality education increasingly inaccessible to economically weaker sections, leading to greater dependence on education loans and long-term student indebtedness. This has intensified intergenerational inequality, as access to quality education is increasingly determined by household income rather than merit.

Educational inequality has deepened, resulting in a two-tier education system. Affluent students gain access to elite private schools and universities with global exposure, while marginalized groups depend on poorly funded government schools and colleges facing shortages of teachers, infrastructure, and learning resources. This divide is particularly stark between urban and rural areas, as well as between advanced and backward states.

Furthermore, privatization has marginalized disciplines such as humanities, social sciences, and basic sciences, as institutions increasingly prioritize marketable and revenue-generating professional courses. This trend undermines critical thinking, ethical reasoning, civic awareness, and social research—qualities essential for a healthy democracy and inclusive development. The overemphasis on employability-oriented education has also weakened research and innovation addressing local and national challenges, particularly in agriculture, rural development, public health, and environmental sustainability.

Another concern is the uneven quality of private institutions. Weak regulatory oversight has allowed the proliferation of substandard colleges with poor faculty, inadequate research output, and low learning outcomes, thereby diluting the overall quality of higher education.

Role of the State and Public Expenditure on Education

Post-1991, public expenditure on education has remained between 3 and 4.5 percent of GDP, significantly below the 6 percent target recommended by the Kothari Commission (1966) and reiterated in the National Education Policy (NEP) 2020. This persistent underinvestment has constrained the expansion of quality public education, teacher training, research funding, and digital infrastructure, particularly in economically backward states.

While initiatives such as the Right to Education Act (2009), Samagra Shiksha Abhiyan, Mid-Day Meal Scheme, and NEP 2020 aim to improve access, quality, and inclusiveness, their impact remains limited without adequate fiscal support and effective implementation.

Way Forward for Education

To strengthen human capital formation, India must reaffirm education as a public good and a core responsibility of the state. Public expenditure on education should be increased to at least 6 percent of GDP, with targeted investment in early childhood education, school infrastructure, teacher training, and research universities. Strong regulatory mechanisms are required to ensure transparency, affordability, and quality in private institutions.

Greater emphasis should be placed on reducing regional, gender, and social disparities, revitalizing humanities and social sciences, promoting interdisciplinary research, and aligning education with both national development priorities and global knowledge systems. Only an inclusive, well-funded, and equitable education system can ensure sustainable growth and help India realize the goal of *Viksit Bharat 2047*.

Role of Government and Education Spending

After 1991, the government's role shifted from being a provider to a regulator, emphasizing public-private partnerships (PPP), institutional autonomy, and commercialization. However, public expenditure on education has remained between 3 percent and 4.64 percent of GDP over the past three decades, far below the 6 percent recommended by the Kothari Commission (1966) and the National Education Policy (2020). In comparison, countries such as the USA, Germany, and China invest significantly higher proportions of GDP in education.

Way Forward for Education

To achieve inclusive growth, India must increase public spending on education to at least 6 percent of GDP. The Finance Commission should include education as a key criterion in tax devolution to support low-literacy states such as Bihar and Uttar Pradesh. Additionally, allowing foreign universities to establish campuses in India under regulated conditions can help improve quality and global competitiveness.

Health

Health is a vital component of human capital and national development, as it directly affects productivity, social stability, and economic growth. A healthy population ensures a more active workforce and fosters innovation and efficiency. The Supreme Court of India has interpreted health as an integral part of the right to life and personal liberty under Article 21, thereby recognizing access to healthcare, clean water, sanitation, and a safe environment as constitutional rights.

Post-Liberalization Impact on Health

Economic liberalization improved healthcare infrastructure, service availability, and health outcomes such as life expectancy, maternal mortality rate, and infant mortality rate, as reflected in National Family Health Survey data. However, these gains have been uneven. In 2016 alone, approximately 1.6 million Indians died due to poor-quality healthcare.

The rapid expansion of private healthcare after liberalization benefited primarily the affluent, while the public healthcare system failed to keep pace due to inadequate funding and weak governance. As a result, poor and rural populations continue to face barriers to accessing quality healthcare.

Government Initiatives in Health

To address these challenges, the government launched several initiatives. The Pradhan Mantri Jan Arogya Yojana (PM-JAY) is the world's largest publicly funded health insurance scheme, providing ₹5 lakh per family per year for secondary and tertiary care hospitalization. The Central Government Health Scheme (CGHS) offers comprehensive care to government employees and pensioners, while the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) aims to correct regional imbalances through the establishment of AIIMS institutions.

Public health expenditure increased from 1.5 percent of GDP in 2014 to 1.9 percent in 2024, with a target of 2.5 percent. However, this remains low compared to countries like Cuba, which spends over 13 percent of GDP on healthcare.

Inter-State Disparities in Healthcare

Kerala consistently ranks highest in the NITI Aayog Health Index due to strong public health infrastructure, decentralization, health literacy, and community participation. It spends around 5.2 percent of GSDP on healthcare. In contrast, Uttar Pradesh ranks among the worst-performing states due to shortages of staff, inadequate infrastructure, and poor governance.

Way Forward for Health

India must notify cancer as a notifiable disease, strengthen intellectual property rights, eliminate counterfeit medicines, increase investment in medical research, and promote technology transfer from developed to developing countries to ensure equitable access to advanced healthcare.

Agriculture

At the time of independence in 1947, Indian agriculture was characterized by stagnation, backwardness, and exploitation under British colonial rule. Over 85 percent of the population depended on agriculture, which suffered from low productivity, subsistence farming, monsoon dependence, and the feudal zamindari system. After independence, agricultural reforms and the Green Revolution transformed India from a food-deficit nation into a food-secure one.

Despite these gains, agriculture continues to face structural challenges. Approximately 46 percent of India's workforce is engaged in agriculture and allied activities, while 80–85 percent of farmers are small and marginal, limiting productivity and income growth.

Impact of Land Reforms

Land reforms aimed to reduce inequality and empower cultivators but largely failed due to lack of political will, administrative inefficiency, corruption, and poor land records. This failure resulted in rural inequality, landlessness, disguised unemployment, and persistent poverty. Since land is a state subject, outcomes varied across states.

West Bengal's Operation Barga successfully registered nearly 1.5 million sharecroppers, granting them permanent rights. Kerala implemented comprehensive land reforms with strict land ceilings and redistribution, dismantling feudal land relations.

Industry

The Industrial Revolution transformed economies from agrarian to industrial systems. In colonial India, British industrialization destroyed indigenous industries, particularly textiles, turning India into a supplier of raw materials and a market for British goods.

After independence, India adopted a mixed economic model with strong state control, import substitution, and public sector dominance. The Industrial Policy Resolutions of 1948 and 1956 laid the foundation for state-led industrialization but resulted in inefficiency, low productivity, and slow growth.

1991 Economic Reforms

Systemic failures led to the 1991 reforms under Prime Minister P.V. Narasimha Rao and Finance Minister Dr. Manmohan Singh. Key reforms included abolition of industrial licensing, reduction of import tariffs, financial sector reforms, disinvestment of public sector units, liberalization of FDI, simplified trade policies, and partial currency convertibility.

As a result, GDP growth increased to an average of 6–7 percent post-1991, compared to 3–4 percent earlier. Employment growth improved through MSMEs and labor-intensive sectors, with the employment rate reaching 64.33 percent during 2022–2024.

Way Forward for Industry

India must promote labor-intensive industries, expand women's labor force participation, formalize informal employment, balance free trade agreements with domestic protection, adopt clean technologies to achieve net-zero emissions by 2070, strengthen CSR utilization, and link industry with educational institutions as envisaged under NEP 2020.

Conclusion

India's post-1991 economic reforms transformed the economy and accelerated growth, but they also produced uneven and exclusionary outcomes. Reduced public investment in education, health, and agriculture has weakened human capital formation and deepened inequality. Privatization and market-driven development, without adequate regulation and redistribution, cannot ensure inclusive or sustainable growth.

To achieve the vision of *Viksit Bharat 2047*, India must rebalance its development strategy by strengthening public investment, promoting equitable access to quality education and healthcare, revitalizing agriculture, and fostering labor-intensive industrialization. Sustainable development depends not merely on economic growth, but on how that growth improves human well-being, social justice, and equality.

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