

INVESTIGATING THE ROLE OF EDUCATION IN SUSTAINABLE DEVELOPMENT AND CHALLENGES TO ACCESS IN INDIA

¹Rajdeep Bose

¹Research Scholar, Smt. K G Mittal College of Arts & Commerce, Mumbai

²Navnita T Megnani

²Professor, Smt. K G Mittal College of Arts & Commerce, Mumbai

ABSTRACT

Education plays a pivotal role in sustainable development by equipping individuals with the knowledge and skills necessary to drive economic growth, social equity, and environmental responsibility. This research paper examines the interconnection between education and sustainable development in India, emphasizing government and non-government initiatives, key challenges, and potential strategies for improvement. Despite notable progress in literacy rates and enrolment, disparities persist across rural and urban areas, genders, and marginalized communities. The study explores data from government reports and academic literature, highlighting positive trends in primary education but ongoing challenges in higher education and skill development. Key barriers such as economic constraints, digital divide, and socio-cultural factors limiting educational access are analysed. India's National Education Policy (NEP) 2020 has integrated sustainability into the education system, but its effectiveness requires stronger implementation and infrastructural improvements. The research concludes that fostering inclusive, equitable, and quality education, strengthening public-private collaborations, and investing in digital education and vocational training are essential for achieving Sustainable Development Goal 4 (SDG 4) and ensuring a sustainable future for India.

Key Words: Sustainable Development, Sustainable Development Goals (SDGs), National Education Policy (2020), USISE⁺ Report, Gender Parity Index (GRI), Gross Enrolment Ratio (GER)

1) INTRODUCTION

Sustainable Development is defined by the United Nations as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Education is at the core of this vision, as it equips individuals with the tools to engage in responsible decision-making, innovate, and contribute to society.

The United Nations Member States in 2015 adopted the 2030 Agenda for Sustainable Development which provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. As a part of the shared vision, seventeen (17) Sustainable Development Goals (SDGs) have been adopted by all countries- developed and developing under a global partnership. Amongst the 17 goals, the fourth SDG is “Quality Education” with an objective to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

In India, education is recognized as a fundamental right, yet disparities persist across rural and urban areas, genders, and marginalized communities. This research paper investigates how education influences sustainable development in India, analyses government and non-government initiatives, and discusses the challenges to universal access.

2) AIMS AND OBJECTIVES

The primary aims and objectives of this report are:

- a. To explore the relationship between education and sustainable development in India.
- b. To identify government and non-government initiatives promoting education for sustainable development.
- c. To analyse challenges and barriers to accessing quality education in India.
- d. To recommend strategies for enhancing educational access and quality to foster sustainable development.

3) REVIEW OF LITERATURE

According to report published by United Nations (2021)¹ titled “The Sustainable Development Goals Report 2021”, continuing education and training are key to improved livelihoods and to developing a labour force resilient to economic shocks and adaptable to technological change. Unsafe conditions, negative interactions with caregivers, and lack of adequate stimulation and learning opportunities during the early years can diminish children’s chances of success throughout their lives.

According to report published by National Institute of Educational Planning and Administration (2022)² titled “National Level Inclusive Education Policies w.r.t. CwDs”, in the context of social order, it was found that if any one section of the society is underdeveloped, it had ramifications for the development of the whole society. The whole cannot develop if one part of it remains underdeveloped. History of social development tells us that certain groups got segregated and were marginalised. These groups were identified in terms of religion, caste, gender, or impairment.

According to report published by Pratham Education Foundation (2024)³ titled “Equity in accessing Numeracy and Basic Literacy Education – Situational Analysis of the state of Inclusive Education”, the National Education Policy (NEP) 2020 unequivocally underscores the primacy of universal foundational skills by stating that the rest of policy is relevant only if all children acquire foundational skills in primary school. Unless children acquire these skills in their primary years, their abilities to develop into well rounded and self-reliant individuals and pursue lifelong learning are severely constrained. While all children have varying degrees of vulnerabilities, children with disabilities face disproportionately significant systemic, socio-economic and cultural barriers and remain at great risk of being left behind in terms of acquisition of foundational skills.

According to report published by Pratham (2023)⁴ titled “Annual Status of Education Report (Rural) 2023-Beyond Basics”, there exists major gaps in learning outcomes, emphasizing the need for remedial measures and targeted interventions. As a country, we need to equip our young people adequately with the essential knowledge, skills, and opportunities they need to drive their own progress and that of their families and communities. India’s anticipated “demographic dividend” and “digital dividend” can achieve their full potential if this is done

According to Research Article published by Eknath Mundhe (2023)⁵ titled “Education for Sustainable Development in India”, The goal of Education for Sustainable Development (ESD) is to empower learners to take action and make informed decisions that will promote sustainability and address pressing global challenges, such as climate change, biodiversity loss, and social inequality. ESD integrates sustainability themes across various subjects, disciplines, and educational levels, from early childhood education to tertiary education and

beyond. It aims to foster critical thinking, creativity, and innovation, and to promote lifelong learning and civic engagement.

4) RESEARCH METHODOLOGY

This report relies on secondary data collected from academic journals, government publications, NGO reports, and international organizations such as UNESCO and UNICEF. Statistical data from the Ministry of Education, Census reports, and research papers form the basis of the analysis. A qualitative approach is used to interpret data, supported by case studies illustrating the practical application of education for sustainable development.

Presentation of Data

As per reports published by Department of School Education & Literacy, Ministry of Education, GOI, the following key points can be understood:

1. As per 2011 census⁶, literacy rate in India has been reported as 74.04% with a 14% increase to that in 2001, whereas the hike is maximum for rural women at 26% in the last decade, which may be attributed to literacy mission of Government of India. The female literacy levels according to the Literacy Rate 2011 census are 65.46% whereas the male literacy rate is over 80%
2. Curtailing dropouts and ensuring universal access to education at all levels by 2030 is one of the primary goals of National Education Policy ⁷(NEP) 2020 and Sustainable Development Goals (SDGs). Areas such as enrolment and retention of students show how many students who entered the school at class 1 are being retained in subsequent years, representing effectiveness of policy. This will help the monitoring of students in their entire school life. As per USISE+ report for the year 2023-24⁸, the dropout rate is 1.9% in the primary level. 5.2% in the upper primary level and 14.1% in the secondary level. The retention rate for the same year is 78% in the primary level, 63.8% in the secondary level and 45.6% in the higher secondary level.
3. The Gender Parity Index (GPI) measured as ratio of GER of girls to GER of boys stood at above 1 at all level indicating more proportionally higher participation of girls as compared to boys. The Gender Parity Index is 1.0 in Foundational stage, 1.03 in Preparatory stage, 1.02 in Middle stage and 1.04 in Secondary stage.
4. The Gross Enrolment Ratio (GER) compares the enrolment in a specific level of education to the population of the age group which is most appropriate for that level of education. The Gross Enrolment Ratio (GER) for girls at the preparatory stage level has risen to 97.7% but reduced to 90.3% in the middle stage and further reduced to 67.7% in the secondary stage.
5. Further, the representation of minorities in total enrolment is around 20%. Amongst the minorities 79.6 % are Muslim, 10% are Christians, 6.9% are Sikh, 2.2 % are Buddhist, 1.3% are Jains and 0.1% Parsi.
6. As far as infrastructure facilities are concerned, some important data points are as follows:
 - 97% of the total schools have girl's toilet facilities out of which 96% of the Government schools are present.
 - 84% of the schools have library facility out of which 88% Government schools are present.

- 83% of the schools have electricity connection out of which 81% Government schools are present.
 - 97% of the schools have drinking water facility out of which 97% Government schools are present.
 - 82% of the schools have medical aid facility out of which 89% Government schools are present.
7. Rural-urban disparities persist, with rural areas reporting lower educational attainment and infrastructure quality.
8. As per all India survey on Higher Education 2021-22, the following important data points have been obtained:
- Total enrolment in higher education has increased to nearly 4.33 crore in 2021-22 from 4.14 crore in 2020-21 (increase of 18.87 Lakh, 4.6%) and 3.42 crores in 2014-15 (an increase of 26.5%).
 - Female enrolment in Higher Education increases to 2.07 crore (32% increase since 2014-15).
 - Of the 4.33 crore students enrolled in 2021-22, 15.3% belong to Scheduled Caste, 6.3% belong to Scheduled Tribe, 37.8% are from Other Backward Class and remaining 40.6% students are from other communities.
 - Enrolment of Scheduled Caste students has increased to 66.23 lakh in 2021-22 from 58.95 lakh in 2020-21. There is a 25.4% increase in SC enrolment during last 5 years (i.e. since 2017-18). Overall increase in SC Student enrolment since 2014-15 is 44%.
 - In case of Scheduled Tribe students, the enrolment has increased to 27.1 lakh in 2021- 22 from 24.12 lakh in 2020-21. 41.6% increase in ST enrolment is observed since 2017-18 and overall increase in ST Student enrolment since 2014-15 is 65.2%.
 - The Minority enrolment has increased to 30.1 lakh in 2021-22 from 21.8 lakh in 2014- 15 (an increase of 38%). Female Minority enrolment has increased 42.3% since 2014- 15 (15.2 lakh in 2021-22 from 10.7 lakh in 2014-15.)
 - Government Universities constituting 58.6% of total Universities, contribute 73.7% of total enrolment, Private Universities account for 26.3% of total enrolment.

5) DATA ANALYSIS AND INTERPRETATION

- i. Analysis of the data reveals positive trends in primary education but ongoing challenges in higher education and skill development.
- ii. GOI had initiated three major schemes through Ministry of Human Resource Development (MHRD) viz. Sarva Shiksha Abhiyan (SSA), Rastriya Madhyamik Shiksha Abhiyan (RMSA) and Centrally Sponsored Scheme on Teacher Education (CSSTE) in partnership with various states/ UTs and they have been operational for more than 2 decades except for RMSA. Though the initiatives like SSA and RMSA have improved access, economic and social barriers continue to limit educational outcomes. The gender gap in rural areas remains a concern, with cultural factors influencing girls' participation.

- iii. The digital divide, exacerbated by the COVID-19 pandemic, has further widened educational inequalities. Data analysis also highlights a correlation between educational attainment and economic mobility, indicating that higher levels of education lead to increased income potential and social advancement.
- iv. Though the enrolment rates and retention rate are higher in the primary and upper primary stages, it starts falling once the student reaches secondary and further higher secondary stages due to reasons like lack of financial support, non-availability of high schools and colleges in rural areas, lack of social support, etc.
- v. Education of the girl child has been well accepted by the society and results indicate much better parameters in the case of girls compared to boys.
- vi. The Government in few states/ UTs has played a good role in creating basic infrastructure for the schools creating a holistic ecosystem for nurturing the young population.

7) DISCUSSION

High-quality education is a cornerstone of Sustainable Development Goal 4 (SDG 4), which seeks to guarantee inclusive and equitable learning opportunities and foster lifelong learning for everyone. SDG 4 emphasizes the vital role education plays in creating sustainable societies and economies. It is a key driver of sustainable development, equipping individuals with the knowledge, skills, and attitudes necessary to tackle the world's economic, social, and environmental challenges. Education empowers people to make informed choices and take meaningful action toward a sustainable future.

The objectives of Goal 4 include:

1. Providing all children, regardless of gender, with free, quality primary and secondary education.
2. Expanding access to education and training opportunities for adults.
3. Addressing gender disparities and ensuring equal access to education for everyone.
4. Enhancing education quality through well-trained teachers, inclusive and relevant curricula, and safe, supportive learning environments.
5. Equipping more individuals with essential skills for sustainable development, such as literacy, numeracy, and digital proficiency.

Achieving SDG 4 requires coordinated efforts among governments, civil society, and the private sector. These stakeholders must work together to mobilize resources, strengthen education systems, and ensure equal access to opportunities for learners of all backgrounds. Investing in quality education is a crucial step toward building a more sustainable future for everyone. In conclusion, SDG 4 underscores the pivotal role of equitable and high-quality education in driving sustainable development worldwide.

Summary of Education and Sustainability in India

(A) Education and Sustainability

Education is vital for building a sustainable future. It raises awareness, fosters critical thinking, and encourages responsible behaviour to address global challenges. Key links between education and sustainability include:

1. Promoting sustainability literacy.

2. Encouraging sustainable behaviour.
3. Supporting sustainable development through skill-building.
4. Promoting environmental stewardship.

(B) National Education Policy (NEP) 2020

India's NEP 2020 integrates sustainability into education by emphasizing:

1. Environmental education at all levels.
2. Sustainability-focused teacher training.
3. Experiential and vocational learning.
4. Using technology to promote sustainable practices.

(C) Barriers to Sustainable Development in Education

Challenges in India include:

1. Lack of awareness and resistance to change.
2. Insufficient infrastructure, funding, and teacher training.
3. Socio-economic disparities and focus on traditional education.

(D) Suggestions for Improvement

1. Raise public awareness about sustainability.
2. Strengthen teacher training and allocate more funding.
3. Integrate sustainability into curricula and improve infrastructure.
4. Address socio-economic disparities and engage communities.
5. Foster partnerships between government, private sector, and civil society.

By overcoming these barriers and implementing these suggestions, India can advance education for sustainable development and build a more inclusive and sustainable future.

8) Conclusion and Interpretation

Education is a cornerstone of sustainable development in India, shaping economic growth, social equity, and environmental responsibility. Addressing the challenges of access and quality requires a multi-stakeholder approach involving government, private sector, and communities. By investing in inclusive, equitable, and quality education, India can pave the way for a sustainable and prosperous future. Collaboration across sectors, innovative policy implementation, and community engagement will be pivotal in achieving these goals, ensuring that education becomes a true driver of sustainable development across the nation.

Recommendations

1. **Strengthening Rural Education Infrastructure:** Increase investments in rural schools, ensuring adequate facilities, trained teachers, and digital access.
2. **Promoting Gender Equality:** Implement targeted campaigns to address socio-cultural barriers preventing girls' education.
3. **Enhancing Digital Education:** Expand internet connectivity and provide affordable digital devices to bridge the digital divide.

4. **Vocational Training and Skill Development:** Integrate vocational training into secondary education to align education with employment opportunities.
5. **Public-Private Partnerships:** Encourage partnerships between governments, NGOs, and the private sector to innovate and expand educational access.

REFERENCES

1. ¹United Nations (2021) report titled “The Sustainable Development Goals Report 2021” DOI: <https://unstats.un.org/sdgs/report/2021/The-Sustainable-Development-Goals-Report-2021.pdf>
2. ²Gupta, V. & National Centre for School Leadership. (2022). National Level Inclusive Education Policies W.R.T. CWDS (By National Institute of Educational Planning and Administration, Samagra Shiksha, Department of School Education and Literacy, Ministry of Education, & Government of India). National Institute of Educational Planning and Administration. <https://ncsl.niepa.ac.in/document/Module%208.pdf>
3. ³Report published by Pratham Education Foundation (2024) titled “Equity in accessing Numeracy and Basic Literacy Education – Situational Analysis of the state of Inclusive Education- Focus in Madhya Pradesh and Maharashtra”. DOI: <https://pratham.org/wp-content/uploads/2024/07/ENABLE.pdf>
4. ⁴Report published by Pratham (2023) titled “Annual Status of Education Report (Rural) 2023-Beyond Basics”. DOI: <https://asercentre.org/wp-content/uploads/2022/12/ASER-2023-Report-1.pdf>
5. ⁵Eknath Mundhe (2023): “Education for Sustainable Development in India”. DOI: https://www.researchgate.net/publication/373393599_EDUCATION_FOR_SUSTAINABLE_DEVELOPMENT_IN_INDIA
6. ⁶National Statistical Office. (2021). *Literacy and Education Report*.
7. ⁷Ministry of Education, Government of India. (2020). *National Education Policy 2020*.
8. ⁸Unified District Information System for Education. (UDISE+) reports published by Department of School Education & Literacy, Ministry of Education, GOI