

Environmental Education in Indian Schools: Current Trends and Challenges

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Abstract

In the last three decades, there has been a judicial mandate and, more recently, the National Education Policy (NEP) 2020 and Mission LiFE (Lifestyle for Environment) to make EE a part of the school policy. The paper reviews a critical overview of the status, trends and ongoing challenges of environmental education in Indian schools, based on the secondary data published from the government agencies like The Unified District Information System for Education Plus (UDISE+), Ministry of Education, Ministry of Environment, Forest and Climate Change and independent agencies like the Centre for Science and Environment in the period 2018-2025. The study adopts a descriptive, secondary data-based research design approach, compiling and analysing five tables of data on the growth of eco-clubs, school-level green infrastructure, green school certifications, state-wise disparities and the policy timeline. The findings show that there is a significant level of commitment to policies and coverage of programs is also increasing, however, only a minority of schools across the country have fully functioning rainwater harvesting systems, kitchen gardens and resourced eco-clubs and there is significant variation in the level of coverage across the different states. Re persisting problems are inadequate teacher training, unequal infrastructure, assessment-driven learning instead of experiential learning and unsatisfactory monitoring mechanisms. The paper suggests that the assimilation of the policy framework of progressive environmental education in India into a consistent implementation at the classroom and campus level demands continuous investment in funding, capacity development and implementation of a strong data-informed monitoring system.

Keywords: environmental education, Indian schools, NEP 2020, Mission LiFE, eco-clubs, UDISE+, sustainability

1. Introduction

1.1 Background and Rationale

India has one of the world's largest school systems at the same time as one of the most stressed out populations with effects of air pollution, water scarcity, biodiversity loss and increasingly climate impacts. Raising awareness of the need for environment protection to more than 240 million school children is a national developmental challenge, not just a curricular addition (Earth.). Org, 2024). EE in India was not merely a natural outcome of pedagogical thinking, but also has been greatly influenced by judicial orders, wherein in the early 1990s, the Supreme Court of India had intervened and directed environmental awareness to be taught as compulsory subject across school boards to all students (Press Information Bureau, 2023). The law was supplemented by curricular changes over the ensuing decades, co-curricular

programs like the National Green Corps (NGC) and, most recently, the broad sweep of the vision of the 2020 National Education Policy (NEP) that elevates environmental sustainability as a cross-cutting theme, instead of an isolated subject (Centre for Science and Environment [CSE], 2024a).

The justification for considering environmental education as a unique area of policy concern is that schools are one of the only institutions that can reach almost all children across geography and socio-economic status, at a critical age. The environmental education can spread and reinforce lifetime patterns of resource use and waste management practices that might be hard to change in an adult campaign and can empower young people to bring the conservation message home with them, to their family and friends (CSE, 2024b). The intergenerational, multiplier effect is one of the contributing factors that successive Indian governments have been investing in eco-club and green-campus programmes despite the broader shift in environmental governance.

One theme in the background literature is the contradiction of EE as compliance and EE as behavioural and attitudinal change. Due to the top-down nature of this legislation, this initiative of EE was seen by many schools as an extra item to be tested in their syllabus and not as a process in which the learner discovers values in the surrounding environment (IJCRT, 2022). NEP 2020 and Mission LiFE are an explicit attempt to change this dynamic, from 'box-ticking compliance' to measurable difference in student attitudes, on-campus practices and behaviour at the household level (Ministry of Education, 2025).

1.2 Conceptualising Environmental Education

Traditionally, environmental education is seen as a process of lifelong learning that develops awareness, knowledge, attitudes, skills and capacities to participate and to take action in solving environmental problems. This means classroom learning in both the Environmental Studies (EVS) and Science syllabus, co-curricular activities like eco-clubs and, more recently, the campus-wide implementation of sustainable practices like waste segregation, water harvesting and kitchen gardening (Kashmir Vision 2026). The NEP 2020 expands upon this idea further by suggesting that environmental awareness, traditional Indian ecological knowledge and the practical skills needed to manage the environment be incorporated at all levels of schooling, from the foundational to the secondary level (CSE, 2024a). Environmental education in the basic and pre-preparatory level is usually presented in the form of children's stories, observation activities and simple issues like caring plants and recycling. The scope expands to include climate change, pollution, depletion of resources and the social and economic drivers behind and consequences, at the middle and secondary levels and is typically integrated into science, geography and social-science courses and curricula rather than a stand-alone subject (IJCRT, 2026). This is a pedagogically sequenced, developmentally appropriate approach based on an assumption that environmental literacy, like language or numeracy literacy, must be developed incrementally and not as a single, stand-alone unit. The Indian understanding of EE can be extended further, as it connects the traditional and indigenous ecological knowledge systems explicitly. The National Education Policy 2020 (NEP 2020) does not merely confine sustainability as an imported technocratic field, but also emphasizes the need to integrate traditional Indian knowledge systems and cultural practices of conserving nature in the curriculum of environment (Press Information Bureau, 2023). This places Indian EE in a global context (SDGs, Mission LiFE's global sustainable-lifestyles agenda) and at the same time local.

1.3 Policy Architecture Governing Environmental Education in India

Presently, Indian schools are under the jurisdiction of three policy layers: At present Indian schools are under three policy layers: The first is the constitutional and judicial level, which is based on the Supreme Court's 1991 order to incorporate environmental education in the educational curriculum upto higher

secondary level. The second is the programmatic layer, including government programs like the National Green Corps and their eco-clubs, which were subsequently renamed “Eco Clubs for Mission LiFE,” in the Ministry of Education's national portal (Ministry of Education, 2025). The third one is infrastructure and monitoring, which has been operationalized through the Samagra Shiksha funding norms and monitored annually through UDISE+ that captures indicators like rain water harvesting system, kitchen gardens and functional green infrastructure in over 1.47 lakh schools (Education for All in India, 2025a). These layers combine to form a policy architecture that is ambitious in design, but relies on the implementation capacity of the states.

In the higher education interface, the policy on environmental studies that was introduced in 2003 and revised in 2017 as part of the Ability Enhancement Compulsory Course under the Choice Based Credit System in the University Grants Commission is continuing to influence teacher preparation policies in school level, which link the policy in environment with the teacher education policy (CSE, 2024b). Furthermore, the policy for a "green campus" - issued to implement the recommendations of NEP 2020 - sets out physical design and operating standards for educational facilities, including a window-to-floor ratio of over 15%, majority reliance on sustainable and non-polluting transport modes, the prioritisation of recycled construction materials and the gradual reduction of fossil fuels in campus operations (CSE, 2024b).

These mandates are funded mainly from composite school grants under the Samagra Shiksha scheme, where there are specific allocations for kitchen gardens (up to ₹5,000 per school, non-recurring grant for kitchen-garden seeds, tools and training) and for rainwater harvesting installation (₹20,000-₹50,000 per school, as part of a broader grant of ₹2.5 lakh infrastructure strengthening for the school) (Education for All in India, 2025a; education.gov.in). Historically, each of these NGC eco-clubs have been given a small annual grant of ₹2,500, which is often referred to as an insufficient amount to enable meaningful and sustained year-round work (Ministry of Environment, Forest and Climate Change, 2019).

1.4 Rationale and Significance of the Study

Although policy declarations are plentiful, there is little synthesis of the secondary, quantitative evidence about the implementation of EE on the ground. The vast body of work that already exists is descriptive and/or policy analytical, rather than revealing the extent of implementation as seen across the UDISE+, Ministry and independent audit data (International Journal of Creative Research Thoughts [IJCRT], 2026). This paper aims to fill that gap by systematically gathering secondary data that was published from 2018 to 2025 and compiling them in comparable tables to identify trends, disparities and gaps. This evidence-based synthesis is useful for those designing policy, preparing future teachers and for those conducting additional research to build on the existing body of evidence.

There are three points to which this study is significant. First of all, it brings together data that is spread across a variety of government portals, government press releases and independent audit agencies in an easily comparable format, saving future researchers and practitioners from the difficulty of tracking multiple sources, each in a different format. Second, the study explicitly compares the national average with state-wise data and thus puts the focus on the equity dimension of EE, which is sometimes overlooked because it is only reported in national figures. Third, the study's timeline of the legal, programmatic and infrastructural developments provides a historical context for the study that allows it to explain gaps that are not recent but are a product of past developments.

1.5 Objectives of the Study

The main objectives of the study are: (i) To trace the policy and legal journey of EE in Indian schools; (ii)

To analyze the curricular and co-curricular pathways to delivering EE in schools; (iii) To compile and analyse secondary data (2018-2025) on coverage of eco-clubs, school green infrastructure and green school certification; (iv) To identify disparities in implementation across states; and (v) To distil the key challenges that face EE in India and propose directions for strengthening EE. Together, these goals shift the focus from a one-dimensional policy description to evidence-based evaluation of implementation, inequities and reform needs.

2. Literature Review

2.1 Legal and Policy Evolution of Environmental Education in India

The roots of the legal dimension of EE in India can be traced to public interest litigation in the early 1990s which led to the Supreme Court order to include environmental awareness as a compulsory subject in schools and colleges (PIB, 2023). University Grants Commission and the National Council of Educational Research and Training, in the following years, made several changes in the curriculum which strengthened this judicial order. NEP 2020 has been the latest and most detailed restatement of the policy, which clearly states that the policy should be implemented at all levels of school education, including the incorporation of water and resource conservation and traditional Indian ecological knowledge into teacher education (B.Ed.) programmes (Press Information Bureau, 2023; CSE, 2024a). It is noted that unlike the policies of 1968 and 1986 where environment is mentioned only in passing, NEP 2020 incorporates the environment as an integral part of curriculum, pedagogy, teacher training and assessment (Kashmir Vision, 2026).

This sequence can be interpreted as a transformation from legal mandate to a policy goal. The judicial directive of 1990s was largely met by the introduction of a separate paper on “environmental studies” or “environmental education” in the school and undergraduate curriculum, with little focus on pedagogical aspects or the design of assessment (CSE, 2024b). NEP 2020, followed by the National Curriculum Framework of 2023, on the other hand, views environmental sustainability as one of the multiple ‘cross-cutting themes’ to be addressed during the design of textbooks, teacher training, as well as in school-level assessments, all at the same time and not in an ‘examinable subject’ (Kashmir Vision, 2026). This is a shift from a model of “add-on” EE to an “infusion” model of EE, as described by several commentators (IJCRT, 2026).

2.2. Curriculum & Pedagogical Approaches

The literature on curriculum implementation highlights the importance of moving away from rote, textbook learning and towards experiential, project and interdisciplinary learning. The NEP 2020 promotes outdoor learning and nature-based learning making it acceptable to use school gardens, biodiversity audits and field visits as legitimate pedagogical tools and not as extracurriculars (Shikso, 2026). At the foundational level, environmental concepts should be presented through stories and activities and at the middle and secondary levels, the concepts of cause and consequence should be presented more directly to students regarding climate change, pollution and resource depletion (IJCRT, 2026). Digital tools and information and instruction using information and communication technology (ICT) is also emphasised as ways to enhance environmental learning beyond well resourced urban schools, however evidence of impact of such activities in low resourced government schools remains limited (IJCRT, 2026). In recent commentary outdoor and nature-based learning has been given a particular focus and schools are encouraged to incorporate the use of the campus garden, trees and open spaces as learning environments for observation, for the study of insects and for tracking weather conditions; to include in the school calendar field programmes and structured visits by naturalists who are not part of the school staff, but are

brought in by external providers for the purpose of teaching about nature (Shikso, 2026). In addition, complementary national programmes like the National Nature Camping Programme cover students' exposure to nature through organised camps and field trips and capacity building activities within the framework of the eco-club develop the skills of the students and teachers related to the aspects of biological diversity, conservation and waste management and climate problems (Sarkari School, 2025). These programmes demonstrate a larger pedagogical vision that learning about environmental attitudes is more lasting when gained through first hand, embodied experience of ecosystems than when learned in the classroom.

Meanwhile, teachers and commentators point out that an innovation that is laid out in policy in one way does not necessarily materialize in the classroom. However, when teachers are not trained in PBL or IBL, the environmental content is usually merely translated into memorisation of information in books so that teachers can ask questions and the students can answer them in the exam (Jurnal Penelitian Pendidikan IPA, 2023). It is a common theme in the literature reviewed in this study that the gap between curriculum prescribed and curriculum enacted is part of the problem.

2.3 Institutional and Programme-Based Interventions

In addition to the curriculum, there has been a greater dependence on institutional programmes for EE in India. The erstwhile Ministry of Environment and Forests initiated National Green Corps, which has been expanded to eco-clubs in schools from 68,000 in 2005–06 to about 97,000 in 519 districts in 2007–08 (MoEFCC, 2019). It was reported that by the time of the NEP 2020, the programme has reached almost 1.2 lakh schools across the country, each with 30 to 50 "cadets" working on biodiversity, water, waste and energy related projects (Ministry of Education, 2025; Sarkari School, 2025). These eco-clubs were formally rebranded as "Eco Clubs for Mission LiFE" in 2023 in order to involve the school-level activities with Mission LiFE the behavioural change campaign led by the Ministry of Environment (Press Trust of India, 2025). In addition to the government initiatives, there are independent organizations like the Centre for Science and Environment (CSE) which operate the Green Schools Programme (GSP), which includes an annual environmental audit and certification of schools as 'green', based on resource-management and campus-sustainability criteria. Out of this, 106 schools were certified green in the 2022-23 cycle alone; awards were also given for outstanding teachers, districts and states (CSE, 2023).

The GSP audit methodology is particularly granular, with the school being evaluated on a range of areas including waste management, land use, food practices, air-quality action and energy management, with specific awards (for instance, Waste Warrior, Land Manager, Good Food, Air Action and Energy Manager) given for work that is excellent in each of the areas assessed (CSE, 2023). The programme was designed as an audit tool based on a series of categories to allow the programme to work diagnostically, highlighting the strengths and weaknesses of a school, rather than a single pass/fail judgement and by 2024–25 had become a four-tiered rating system (Green, Yellow, Orange, Red) representative of schools participating nationally (Green Schools Programme, 2025).

In a similar manner, the activities of the eco-clubs organized by the government have focus areas: conservation of biodiversity, water, energy, waste management and land use planning, where the locale-specific issues are prioritized according to the environmental issues of the region (Sarkari School, 2025). Popular activities documented in the literature are Water Harvesting demonstration, Tree plantation drive and composting of biodegradable waste, all of which can be done without having to spend a lot of money on their organisation and are activities that can be carried out even with a limited amount of specialised equipment (Sarkari School, 2025). More incentive programmes have been suggested, including Green

School awards, student 'fellowships' and inter-school competitions to maintain the motivation of students and the educators who usually oversee the Eco-clubs in their spare time (Sarkari School, 2025).

2.4 Documented Challenges and Gaps

Although this is an implementation dense program, the literature is replete with documentation of gaps in implementation. The findings of the study showed that the problem of the structural constraint was inadequate recruitment and training of subject qualified environmental educators and also there was a lack of professional development for existing environmental educators (IJCRT, 2022; Jurnal Penelitian Pendidikan IPA, 2023). Infrastructure gaps are also documented: By the 2023-24 school year, for example, only about half of Delhi schools had functional eco-clubs (Press Trust of India, 2025), while a national mandate calls for a 100% coverage of eco-clubs. The functional rainwater harvesting systems and kitchen gardens, which are integral parts of experiential learning, are found in less than 50% of the national schools, with significant inter-state variations (Education for All in India, 2025a, 2026). Continuities or gaps in monitoring are further highlighted by scholars who observe that environmental education is spread across several ministries (education and environment) and delivery modes (curricular, co-curricular and infrastructural), making it challenging to measure effectiveness and outcomes because of the multidimensional nature and the lack of a single authority.

The other issue which is also discussed in the literature is the limited and sometimes stagnant funding to support the school level co-curricular environmental activity. The amount of the annual grant given to individual eco-clubs has not been commensurate with the cost of maintaining ongoing biodiversity, water or energy initiatives and several commentators have called for changes to the funding system, in favour of financing based on activities rather than flat per-club grants (MoEFCC 2019, 2023). There are also gaps regarding career-awareness: Career pathways related to the environment are growing in number, ranging from work in the field of environmental impact assessment to working with organisations like the United Nations Environment Programme, the World Wide Fund for Nature, the Centre for Environment Education, but school-level environmental education does not often link learners to these careers and thus does not have a significant role in influencing their career choices for the future (IJCRT, 2022).

Lastly, a structural fragmentation issue is identified, as EE is spread across the Ministry of Education, Ministry of Environment, Forest and Climate Change, state education departments and NGOs, each with their own reporting system and in the past, a lack of data interoperability (MoEFCC, 2023). While the rebranding of eco-clubs under a single platform in the Ministry of Education has been introduced as a new initiative to tackle this fragmentation, external experts have raised concerns that this hasn't coincided with the consolidation of funding or teacher-training authority (Press Trust of India, 2025; Ministry of Education, 2025). The empirical context for the secondary-data analysis in the present study is these persistent, multi-dimensional gaps pedagogical, financial, infrastructural and administrative.

3. Research Methodology

The research design in this study is descriptive, qualitative and quantitative based research type with secondary data analysis. The primary data collection was not undertaken, instead the study systematically compiled, tabulated and analysed the secondary data which is publicly available and published between the years 2018-2025 on environmental education in Indian schools.

Data sources are official government statistical reports (mainly the Unified District Information System for Education Plus (UDISE+) reports for 2023–24 and 2024–25), programme-level reports and press releases from the Ministry of Education's Eco Clubs for Mission LiFE portal (Ministry of Education, 2025)

and independent audit data from the Centre for Science and Environment's Green Schools Programme (CSE, 2023; Green Schools Programme, 2025), as well as peer-reviewed and practitioner literature on policy and implementation challenges (IJCRT, 2022, 2026; Jurnal Penelitian Pendidikan IPA, 2023). The information taken from these sources was presented in five tables for comparison: (1) growth and coverage of eco-clubs/National Green Corps schools; (2) national UDISE+ green-infrastructure indicators; (3) Green Schools Programme certification data; (4) state-wise comparison of green infrastructure indicators (Tamil Nadu vis-à-vis the national average); and (5) a consolidated timeline of policy and legal milestones. Percentages were calculated from absolute numbers reported in source documents when numbers were only available in raw count format (e.g., 7,450 functional rainwater harvesting systems out of 1,471,473 schools reported in UDISE+ 2024-25). Data was compiled and then interpreted using descriptive analysis, which included comparison of proportions, year-on-year trends and comparison with state-level benchmarks. Due to the use of secondary sources, the limitations of this study include the possibility of inconsistencies in reporting periods and definitions among agencies, as well as the fact that granular data is not always available on an annual basis for each indicator through 2025 and the descriptive (non-inferential) nature of the analysis.

4. Results

The results on secondary data collected have been presented in five tables, which collectively highlight the trajectory of EE in schools in India from 2018 to 2025.

4.1 Growth and Coverage of Eco-Clubs / National Green Corps Schools

Table 1: Growth and Coverage of Eco-Clubs / National Green Corps (NGC) Schools, Selected Years

Year	Schools with Eco-Clubs	Districts Covered	Remarks
2007–08	~97,000	519	Early expansion phase of NGC programme
2019	~1,20,000 (approx.)	Nationwide (700+)	Steady-state NGC coverage prior to NEP 2020
2023–24 (Delhi)	~50% of Delhi schools		Only half of Delhi schools had functioning eco-clubs
2024–25	~1,20,000 (target: universal)	All districts	Rebranded as "Eco Clubs for Mission LiFE"; national monitoring portal launched

Source: Compiled from Ministry of Environment, Forest and Climate Change (2019); Ministry of Education (2025); Press Trust of India (2025); Sarkari School (2025).

As seen in Table 1, the number of schools participating in the National Green Corps has grown from approximately 68,000 schools in 2005-06 to 97,000 in 2007-08, but has since slowed down to around 1,20,000 schools during the NEP 2020 period. Most importantly, the national programme coverage figures do not reveal much local variation – even in Delhi, one of the more well endowed union territories in

India, only roughly half of schools have functional eco-clubs as of 2023–24 and the programme has frequently failed to take action on the issues reported by the clubs (Press Trust of India, 2025).

4.2 National Green-Infrastructure Indicators (UDISE+ 2024–25)

Table 2: UDISE+ Green-Infrastructure Indicators, All-India, 2024–25

Indicator	Number of Schools	Percentage of Total Schools
Total schools (base)	14,71,473	100.0%
Functional rainwater harvesting system	4,32,999	29.4%
Kitchen garden facility	~5,91,532 (est.)	40.2%
Ramp and handrails	8,08,460	54.9%
Functional drinking water facility	14,56,968	99.0%

Source: Education for All in India (2025a, 2026), based on UDISE+ 2024–25 data, Department of School Education & Literacy, Ministry of Education.

Table 2 shows that near universal provisions of drinking water facilities is available in Indian schools, but indicators most closely related to environmental education and campus sustainability are significantly behind. Less than one in three schools across the country has a functioning rainwater harvesting system and, in less than half of the schools, a kitchen garden is present although both are recommended as experiential learning resources under the National Education Policy, 2020 (NEP 2020) and Samagra Shiksha norms (Education for All in India, 2025a). Inclusive campus infrastructure, measured by ramp and handrail coverage, is just over half in all schools.

4.3 Green Schools Programme Certification Data

Table 3: Centre for Science and Environment's Green Schools Programme (GSP) Certification Snapshot

Cycle	Schools "Green" Certified	Special Recognitions	Remarks
2018–19 – 2021–22	Data not centrally consolidated		Programme continued via annual school-level audits
2022–23	106	19 Annual Green School Awards	Awards also given to best-performing teacher, district and state
2023–24	Participating schools rated Green/Yellow/Orange/Red		Rating-band system introduced for finer differentiation

Cycle	Schools "Green" Certified	Special Recognitions	Remarks
2024–25	Participating schools rated Green/Yellow/Orange/Red		Continued audit-based certification across states

Source: Centre for Science and Environment (2023); Green Schools Programme (2025).

While the Green Schools Programme can have a powerful effect as a model for schools to achieve an audit-based environmental certification, it only certifies a small, self-selected sample of Indian schools each year (106 in 2022-23) compared to the country's 1.47 million plus schools. The move to a four band rating system (Green, Yellow, Orange, Red) in 2023–24 and 2024–25 is an attempt to make the audit more diagnostic and not binary, but participation is voluntary and only among schools with existing administrative capacity to undergo the audit.

4.4 State-Wise Disparities: Tamil Nadu versus the National Average

Table 4: State-Wise Comparison of Green Infrastructure Indicators Tamil Nadu vs. National Average (UDISE+ 2024–25)

Indicator	Tamil Nadu (%)	National Average (%)	Gap (percentage points)
Rainwater harvesting	94.5%	29.4%	+65.1
Kitchen garden	46.1%	40.2%	+5.9
Ramp and handrail coverage	86.2%	54.9%	+31.3
Solar panel coverage	5.3%	Not separately reported	

Source: Education for All in India (2026), based on UDISE+ 2024–25 data.

The results in Table 4 illustrate the extent of inter-state variance in readiness for environmental education in relation to green infrastructure. Among the best-performing states in terms of school education indicators, Tamil Nadu records a rain water harvesting percentage in excess of 3× the national figure and the percentage for ramp/handrails is nearly 31 PP points more than the national average. In a reasonably performing state, however, the coverage of solar panels remained low (5.3%), indicating that the infrastructure for renewable energy in India – as an explicit goal of NEP 2020 – is not coming up with the pace even in the top performing states (Education for All in India, 2026).

4.5 Timeline of Policy and Legal Milestones

Table 5: Consolidated Timeline of Policy and Legal Milestones in Indian Environmental Education (1991–2025)

Year	Milestone
1991	Supreme Court directs compulsory environmental education across school boards
1992	Environment made a compulsory subject up to Class 12 from the academic session

Year	Milestone
2007–08	NGC eco-clubs reach ~97,000 schools across 519 districts
2017	UGC revises Environmental Studies syllabus as an Ability Enhancement Compulsory Course
2019	Government evaluation study conducted on functioning of eco-clubs in schools
2020	NEP 2020 launched, embedding environmental sustainability across all stages of schooling
2022–23	Mission LiFE launched; CSE's Green Schools Programme certifies 106 schools as green
2023–24	Eco-clubs renamed "Eco Clubs for Mission LiFE"; ~50% coverage reported in Delhi
2024–25	UDISE+ data show 29.4% of schools with functional rainwater harvesting and 40.2% with kitchen gardens nationally

Source: Compiled from Press Information Bureau (2023); MoEFCC (2019, 2023); Ministry of Education (2025); CSE (2023, 2024a); Press Trust of India (2025); Education for All in India (2025a).

Table 5 puts the foregoing data in perspective by placing it in a longer policy track. It reveals that the legal compulsion (1991–1992) was followed by programme scale-up (2007–08 onwards) by more than a decade and that the latest stage (2020–2025) has been one in which all the strands of the programme legal mandate, co-curricular eco-clubs, programmes of campus infrastructure have been grappling with how to be integrated into a single coherent framework that can be monitored, with a focus on NEP 2020 and Mission LiFE. Taken together, the data in Tables 1-5 indicate a system in which policy is deeply embedded at the top, while the institutional structure is growing, albeit with considerable variability in how the policies are realized at the ground level, especially in infrastructure-intensive components of EE, like water collection, kitchen gardening and renewable-energy adoption.

5. Conclusion

The EE in the Indian Schools has grown from being merely a compulsory subject in the curriculum and under judicial order, to a multi-layered architecture of policy making encompassing curriculum policy, co-curriculum eco-clubs and green-campus infrastructure, which were most comprehensively introduced in the National Education Policy 2020 and translated into action through Mission LiFE. What the secondary data which were aggregated during this study suggest from 2018 to 2025 is that the institutional coverage, in reality, expanded: while the number of eco-clubs type programmes is now reported to reach more than a lakh schools, the national data collection via UDISE+ has become much more detailed. Meanwhile, the data show a lack of implementation. Less than one-third of Indian schools have working rainwater harvesting systems, less than two out of five have kitchen gardens and even a prominent state like Tamil Nadu has minimal uptake of solar panels. Where disparities between states exist and between government and audited 'green' schools and between the coverage of programmes as they are nominally defined (e.g., eco-club re-branding) and as they are implemented (e.g., only about 50% of eco-clubs were covered in Delhi as recently as 2023–24), the implementation gap is evident, but not the policy gap.

This need has to be matched at least in three ways. First, the challenged, sustainable and ring-fenced funding mechanisms (as in the Samagra Shiksha composite grants) must be expanded to dedicate them specifically for environmental-education infrastructure like rainwater harvesting, kitchen gardens, renewable-energy installations, etc., with a focus to address gaps to the state level rather than national averages. Second, teacher capacity building should shift its focus from orientation courses to regular, qualified teacher training on sustainability education, as teacher preparedness is mentioned repeatedly in the literature as an impediment in the delivery of effective sustainability education. Third, monitoring architecture should be shifting from coverage (e.g., number of schools with eco-clubs) to functional outcomes (e.g., how often are eco-clubs held, how many students are participating, how much does the eco-club influence student environmental knowledge and behaviour). It is only in such a deepening, from policy statements to a resourced, monitored, day-to-day practice in the classroom and on the campus that India's vision of environmental education becomes a reality the environmentally literate citizenry that NEP 2020 and Mission LiFE both imagine.

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