"Turning Policy into Practice: The Role of Indian Publishers in Advancing NEP 2020's Vision of Green Education"

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Abstract: This research delves into the essential journey of translating policy intopractice by examining how India's National Education Policy (NEP) 2020 can be actualized through the integration of sustainability and environmental consciousness into school education. While NEP 2020 strongly advocates for embedding ecological awareness and green skills from early childhood to secondary education, its effective implementation remains hindered by infrastructural gaps, limited curricular flexibility, and a shortage of trained educators.

Crucial to bridging this gap is the often overlooked yet powerful role of Indian school book publishers. As the primary vehicles of curriculum delivery, publishers hold the potential to transform policy ideals into engaging, accessible, and age-appropriate learning materials that resonate with students across diverse geographies. This study assesses how textbook development—when aligned with the spirit of NEP 2020—can foster a culture of sustainability from the ground up.

The research also evaluates the impact of the Samvaw Academy of Green Education (SAGE), which has pioneered eco-literacy efforts by collaborating with grassroots organizations and developing innovative, pedagogically sound content. By examining SAGE's initiatives alongside the publishing sector's responsibilities and potential, the study highlights scalable strategies for embedding green education into mainstream learning.

In doing so, this paper contributes to the national discourse on environmental education, offering a roadmap for how school publishers, educators, and institutions can collectively nurture a generation of environmentally responsible citizens equipped to face future ecological challenges.

Keywords: NEP 2020; Green Education; Sustainability Curriculum; Environmental Literacy; School Book Publishers; Policy Implementation; SAGE (Samvaw Academy of Green Education); Sustainable Development Education

INTRODUCTION

A. Background and Context

Across the globe, educational systems are evolving to reflect the urgent need for environmental consciousness, with schools increasingly seen as the starting point for nurturing sustainability-minded citizens. In India, this global shift finds formal expression in the National Education Policy (NEP) 2020, which outlines a transformative vision to embed environmental awareness and green skills throughout the school journey—from kindergarten to grade 12. The policy underscores that environmental stewardship is not a peripheral topic, but a foundational element of holistic education.

B. Relevance and Significance of the Study

The integration of sustainability into education has never been more crucial. Climate change, resource depletion, and ecological degradation pose complex challenges that demand informed, responsible, and adaptive future generations. While NEP 2020 articulates a progressive blueprint, realizing this vision within India's diverse and resource-constrained education system remains a formidable task. The gaps, ranging from inadequate infrastructure and static curricula to the lack of relevant books to sub-optimal teacher training in environmental education, are significant.

However, one of the most overlooked yet impactful enablers of change is the role of Indian school book publishers. As custodians of classroom content, publishers have the power to shape how NEP 2020's sustainability goals are translated into accessible and meaningful learning experiences for millions of students.

C. Research Problem and Objectives

This study investigates the core barriers to the effective implementation of green education within Indian schools under the framework of NEP 2020. It critically examines how these barriers—pedagogical, structural, and logistical—can be addressed through innovative models like the Samvaw Academy of Green Education (SAGE), while also assessing the transformative potential of India's textbook publishing ecosystem. The research aims to explore how publishers can align their content development with NEP 2020 mandates and act as catalysts in bringing green education into the hands of every school-going child in India.

D. Contributions of the Study

Through a detailed analysis of SAGE's efforts, particularly its grassroots partnerships and context-sensitive teaching methodologies. This study highlights replicable, scalable approaches to embedding sustainability into mainstream education. More importantly, it positions schoolbook publishers as central agents in this mission, urging them to move beyond compliance and towards creative leadership in shaping green content. By offering both critique and constructive pathways, the study contributes to the growing discourse on sustainable education in India and supports the broader objective of building an environmentally literate and future-ready generation.

REVIEW OF LITERATURE

The integration of environmental education within the school curriculum is an area that has garnered increasing academic and policy attention globally. The literature on green education underscores its significance in fostering environmental stewardship and sustainable living practices among students.

(a) A Comprehensive Review of Existing Literature

The global recognition of environmental education as a critical element of school curricula has been well-documented in both academic and policy circles. It is increasingly viewed as essential for fostering environmental stewardship and instilling sustainable living practices among students. Scholars such as Cutter-Mackenzie et al. (2014) emphasize the formative influence of school-based environmental education on shaping students' environmental

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awareness and behaviors. Davis (2010) also highlights the importance of embedding these values early in a child's educational journey to nurture lifelong sustainability mindsets.

In India, the National Education Policy (NEP) 2020 marks a significant policy shift aimed at mainstreaming environmental education from the foundational to the senior secondary levels. As Sharma & Vyas (2019) note, NEP 2020 represents a transformative moment in the country's education reform. However, studies also draw attention to the persistent challenges impeding its effective implementation—chief among them being resource scarcity, inadequate teacher training, and curricular rigidity (Kumar & Sarangapani, 2018; Mehra & Mehra, 2020).

Addressing these gaps requires innovative, community-centric approaches. The role of non-governmental and grassroots organizations has emerged as crucial in bridging the divide between policy intent and ground-level execution. The work of the Samvaw Academy of Green Education (SAGE) offers a compelling model. Through its focus on resource mobilization, educator capacity-building, and curriculum innovation, SAGE exemplifies how localized efforts can align with national policy goals. Its collaborations with NGOs, self-help groups (SHGs), and Anganwadis illustrate a scalable and inclusive strategy to advance green education in India.

(b) Identification of Gaps in the Literature

While the importance of green education and the barriers to its integration in schools are well-documented, there is a notable lack of empirical research assessing the on-ground effectiveness of initiatives like the Samvaw Academy of Green Education (SAGE) within the Indian educational context. Most existing studies focus on theoretical frameworks or policy-level discussions, offering limited insight into the practical strategies and outcomes of grassroots interventions.

Moreover, current scholarship often overlooks how such initiatives concretely align with and advance the goals of the National Education Policy (NEP) 2020, particularly in terms of implementing environmental education across India's diverse and varied schooling systems. This study addresses these gaps by critically examining the real-world contributions of SAGE, offering a deeper understanding of both the challenges faced and the opportunities leveraged in making green education a tangible reality within the NEP 2020 framework.

METHODOLOGY

(a) Description of the Qualitative Research Design and Rationale for Its Choice

This study adopts a qualitative research design, chosen for its strength in exploring complex phenomena within their specific contexts. This approach allows for an in-depth examination of the subjective experiences, attitudes, and perceptions of individuals involved in the implementation of green education programs. The rationale behind selecting a qualitative design lies in its ability to capture the nuanced perspectives of various stakeholders and to uncover the underlying reasons for the challenges faced, as well as to identify the effectiveness of initiatives like SAGE in addressing these barriers.

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(b) Details on the Sample Selection

The study employed purposive sampling to select a diverse sample of 136 respondents. This sample included educators, school administrators, schoolbook publishers and policymakers from various regions across India, representing a wide range of experiences and insights into the implementation of green education. The purposive sampling technique was chosen to ensure that the sample specifically included individuals who are directly involved in or affected by the integration of environmental education into school curricula, thus providing rich, relevant data for analysis.

(c) Description of Data Collection Methods

Data collection was carried out through semi-structured interviews, which were designed to elicit detailed information on the participants' experiences, perceptions, and opinions regarding the challenges and opportunities in implementing green education programs. The semi-structured format allowed for flexibility in the interviews, enabling the researcher to probe deeper into certain areas of interest or to clarify responses, while still covering a consistent set of topics with all participants.

(d) Explanation of Data Analysis Procedures

The data collected from the semi-structured interviews were subjected to thematic analysis, a method used to identify, analyze, and report patterns (themes) within the data. This approach facilitated the organization and description of the dataset in rich detail and allowed for the interpretation of various aspects of the research topic. Through thematic analysis, the study systematically categorized data into themes related to the barriers to and opportunities for implementing green education programs, as well as the contributions of initiatives like SAGE towards overcoming these challenges. This analysis procedure enabled the extraction of meaningful insights from the qualitative data, contributing to a comprehensive understanding of the research problem.

FINDINGS

(a) Presentation of Key Themes Emerged from the Data Related to the Barriers to Implementing Green Education Programs

The analysis of interview data revealed three primary barriers to the implementation of green education programs in Indian schools:

- **i. Resource Scarcity:** A prevalent issue identified was the lack of essential materials, infrastructure, and financial support necessary to run effective green education programs. Participants noted that this scarcity hampers the ability of schools to provide comprehensive environmental education.
- **ii. Inadequate Teacher Training:** The data highlighted a significant deficiency in the provision of specialized training for educators. This gap impedes teachers' ability to impart environmental education effectively, owing to a lack of knowledge and pedagogical skills in this area.
- iii. Curriculam Rigidity: Respondents, mainly comprising schoolbook publishers expressed concerns over the inflexible nature of the current educational curriculum, which

offers limited opportunities for the integration of environmental topics and activities into standard children book publishing.

Description of Identified Opportunities for Overcoming These Barriers (b)

The study identified several potential opportunities for addressing the challenges in green education implementation, such as:

- Enhancing resource allocation to schools for the specific purpose of environmental education.
- ii. Developing and providing specialized training programs for educators to improve their competence in delivering green education.
- Advocating for curriculum reform to incorporate greater flexibility and integration of environmental topics.

Detailed Insights into How SAGE, Through Its Partnerships and Initiatives, (c) **Addresses the Identified Challenges**

SAGE has taken a proactive approach to mitigating the barriers to green education through a variety of strategies:

- i. Resource Mobilization: By forming partnerships with grassroots organizations, SAGE has played a pivotal role in mobilizing the necessary resources for schools that are resourcestrapped. This initiative has enabled schools to access materials and infrastructure required for implementing green education programs.
- Educator Empowerment: SAGE has invested in the professional development of educators by organizing workshops and training programs focused on green education. These initiatives have been crucial in equipping teachers with the knowledge and skills needed to effectively teach environmental topics.
- Curriculum Innovation: Recognizing the limitations imposed by curricular rigidity, SAGE has been instrumental in developing and promoting the adoption of flexible curriculum models. These models are designed to integrate environmental education seamlessly across various subjects, thereby facilitating a more holistic and interdisciplinary approach to learning.

Examples of Successful Strategies Implemented by SAGE (d)

Among the notable strategies implemented by SAGE, several stand out for their effectiveness and impact:

- i. The establishment of 'Green Clubs' in schools to foster a practical and hands-on approach to environmental learning among students.
- Collaborating with local environmental organizations to provide experiential learning ii. opportunities outside the classroom, such as nature walks, clean-up drives, and conservation projects.
- Developing digital resources and platforms to enhance the accessibility and delivery of iii. environmental education content, ensuring that learning can continue beyond the physical classroom.

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These strategies exemplify SAGE's commitment to not only addressing the immediate challenges faced by schools in implementing green education but also to fostering a sustainable and environmentally conscious mindset among future generations.

DISCUSSION

(a) Interpretation of the Findings in Relation to the Reviewed Literature

The findings from this study resonate with the existing literature, which highlights the critical importance of integrating green education into school curricula to foster environmental stewardship among students. Consistent with the works of Cutter-Mackenzie et al. (2014) and Davis (2010), this study confirms that resource scarcity, inadequate teacher training, and curricular rigidity are significant barriers to the implementation of green education in Indian schools.

Furthermore, the role of NGOs and grassroots organizations, as identified by Singh & Gupta (2021), is exemplified in SAGE's efforts to mobilize resources, empower educators, and innovate curricula. This study's findings contribute to the body of knowledge by providing empirical evidence of the effectiveness of such initiatives in overcoming these barriers.

(b) Discussion on How SAGE's Contributions Align with the Goals of the NEP 2020 and Address the Research Problem

SAGE's contributions, as illuminated by this study, are closely aligned with the NEP 2020's vision for environmental education. The policy emphasizes the integration of environmental consciousness and green skills into the educational journey of students, advocating for a transformative approach towards sustainable development.

SAGE's strategies, including resource mobilization, educator empowerment, and curriculum innovation, directly address the research problem by providing viable solutions to the identified barriers. This alignment demonstrates SAGE's role not only in fulfilling the policy's mandates but also in setting a precedent for scalable and effective implementation of green education across the nation.

(c) Consideration of the Implications of the Findings for Policymakers, Educators, and Stakeholders in the Field of Education

The implications of these findings extend to a wide range of stakeholders in the education sector, including policymakers, educators, and educational institutions. For policymakers, this study highlights the need for supportive frameworks and resources that enable the integration of green education into school curricula.

The evidence of SAGE's success suggests that policies should encourage partnerships with NGOs and grassroots organizations to leverage their expertise and resources. For educators, the findings underscore the importance of professional development in environmental education to enhance teaching effectiveness.

(d) The Role of Indian School Book Publishers as Catalysts in Policy Implementation Though underemphasized yet transformative dimension of green education implementation lies in the role of Indian school book publishers. As the primary content creators for millions

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of learners, publishers are strategically positioned to translate NEP 2020's sustainability mandates into student-friendly, contextually relevant, and pedagogically sound learning materials.

By actively incorporating green themes, experiential learning modules, and local case studies into textbooks and supplementary materials, publishers can ensure that environmental education is not merely aspirational but becomes an everyday classroom reality. The study urges policymakers and educators to engage publishers as co-creators of the green education ecosystem. Encouraging public-private collaborations in textbook development, capacity-building workshops for editors, and policy-driven incentives for innovation in publishing are key strategies to accelerate this transformation.

Through this lens, Indian school book publishers emerge not just as content providers, but as powerful enablers in fulfilling NEP 2020's vision—ensuring that every school-going child in India has equitable access to high-quality, sustainability-oriented learning resources.

Finally, for educational institutions, adopting flexible curricula and engaging with community resources are key strategies for overcoming barriers to green education. Collectively, these implications suggest a collaborative and multi-faceted approach to embedding environmental consciousness in the education of future generations, in line with the NEP 2020.

CONCLUSION AND RECOMMENDATIONS

(a) Summary of Findings and Their Importance

The findings of this study underscore the significant barriers to the implementation of green education in Indian schools, including resource scarcity, inadequate teacher training, and curricular rigidity. By highlighting the effective strategies employed by SAGE, such as resource mobilization, educator empowerment, and curriculum innovation, this research provides valuable insights into overcoming these challenges.

The alignment of SAGE's efforts with the NEP 2020 goals demonstrates a viable pathway for the national scaling of green education initiatives, emphasizing the study's importance in contributing to the broader educational and environmental discourse.

(b) Recommendations for Policy and Practice

Based on the study's findings, several recommendations for policy and practice are proposed to enhance the implementation of green education in India:

- i. Enhanced Policy Support: Policymakers are urged to strengthen policy frameworks to offer clear guidelines and allocate sufficient resources for green education. This includes financial support, infrastructure development, and material resources essential for the effective delivery of environmental education.
- **ii.** Capacity Building: There is a critical need for expanding teacher training initiatives focused on environmental education. Such initiatives should aim to equip educators with the necessary pedagogical skills and knowledge to effectively teach environmental concepts, fostering an engaging and informative learning experience for students.
- iii. Curriculum Flexibility: Advocacy for curriculum reform is recommended to facilitate a more integrated and flexible approach to incorporating environmental education

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within the school curriculum. This should allow educators to seamlessly weave environmental topics and sustainable practices into various subjects, promoting a holistic understanding of environmental issues among students.

(c) **Implications for Future Research**

This study opens avenues for future research to explore the long-term impacts of initiatives like SAGE on students' environmental consciousness and behaviors. Further studies could also investigate the scalability of such initiatives across different regions and educational contexts in India, examining the adaptability of SAGE's strategies in diverse settings. Additionally, research focusing on the engagement of community stakeholders and the development of public-private partnerships could provide deeper insights into collaborative approaches for advancing green education.

To build upon the findings of this study, future research could explore several avenues:

- i. Longitudinal Impact Assessment: Investigating the long-term effects of green education initiatives like SAGE on students' environmental awareness, attitudes, and behaviours could provide valuable insights into the efficacy of these programs.
- Scalability and Adaptation: Further studies could examine the scalability of successful green education models across different educational settings and regions in India. This includes assessing the adaptability of strategies implemented by SAGE in diverse socioeconomic and cultural contexts.
- iii. Stakeholder Engagement: Research focusing on the role of community stakeholders and the potential for public-private partnerships in advancing green education could shed light on collaborative strategies for expanding and enhancing environmental education initiatives.
- The Role of Indian School Book Publishers in Operationalizing NEP 2020 d) A vital yet underutilized force in the NEP 2020 ecosystem is the Indian school book publishing industry. As the primary conduit for delivering curricular content, publishers hold immense potential to mainstream sustainability through textbooks and learning materials. Their role must extend beyond content reproduction to content innovation such as creating engaging, age-appropriate, and context-sensitive material that reflects the environmental goals of NEP 2020.

Publishers can act as facilitators in translating policy into practice by collaborating with educators, curriculum developers, and environmental experts. They can integrate experiential learning modules, local case studies, and indigenous knowledge systems that resonate with young learners and promote behavior change. Additionally, aligning textbook development timelines with policy implementation goals and investing in editorial training on sustainability themes are strategic steps toward realizing NEP's green vision.

By addressing these recommendations and suggestions for future research, stakeholders can further advance the agenda of integrating environmental education into the Indian schooling system, fostering a generation of environmentally conscious and action-oriented citizens.

To this end, the study recommends institutional mechanisms for policy-driven collaboration between government bodies and publishing houses, offering incentives for the production of green learning content. When empowered and engaged effectively, schoolbook publishers can become powerful agents of change—ensuring that every school-going child in India learns not only how to read but also how to care for the planet.

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