



The efficiency of B.Ed. College-level environmental education programs in advancing sustainability education for the 2030 Sustainable Development goals in M.P. Indore India : A systematic Literature Review

Dr. Preeti Shrivastava

Associate Professor

(Edu. Dept.)

Dr. A.P.J. Abdul Kalam University

Indore (M.P) India

Abstract –

This study aims to determine the obstacles and difficulties encountered, particularly in the areas of the environment and students' education and assess how well environmental education initiatives for students enhance sustainability education in light of the Sustainable Development Goals (SDGs) 2030 as determined by a thorough literature review. The basis for this study's systematic literature review research methodology. According to the study's findings, environmental education in B.Ed. College that is in line with the Sustainable Development Goals (SDGs) of 2030, is crucial for developing students' knowledge, abilities, and critical awareness of intricate global environmental challenges. B.Ed. is the subject in which students take admission after graduation or post-graduation, they want to be a teacher in life, and they have enormous knowledge and they will utilize this by taking admission in B.Ed. In B.Ed. College Students learn in their curriculum about Educational Philosophy & Sociology, Environmental Education and Psychology with other co-curricular activities like, Eco club activity, Community outreach program, survey with field projects on environmental practices, case studies on sustainable school or green policies' knowledge, critical thinking abilities, and creative solutions to environmental problems are all intended to be enhanced by this educational program.

Keywords: Effectiveness, Education, B.Ed. Programs, Environmental, and SDG's

Introduction –

Sustainable development may be a development that meets the requirements of this without compromising the power of future generations to satisfy their own needs. (Kofi Annan)

Students are better equipped to comprehend the long-term effects of their choices on the environment, society, and economy when sustainable development ideas are incorporated into the curriculum in higher education. In addition to molding theoretical knowledge, this fosters the development of practical problem-solving and critical thinking abilities. Students that receive education focused on sustainability are also more likely to be creative and come up with solutions that help the 2030 Sustainable Development Goals (SDGs) be achieved. Furthermore, pupils who receive a sustainable education are more likely to grow up to be morally and responsible teacher, who can balance environmental sustainability, social welfare, and economic progress while making judgments. Thus, sustainable education at B.Ed. college plays a significant role in society as a whole in addition to helping students grow personally.

As part of the 2030 Agenda for Sustainable Development, the United Nations (UN) member states adopted a set of global objectives in 2015 that are known as the Sustainable Development Goals (SDGs). The Sustainable Development Goals (SDGs) are a set of 17 objectives that address many facets of human existence and the world. They include eradicating poverty, reducing inequality, protecting the environment, and guaranteeing that everyone has access to excellent health, decent job, a decent life, and great education. India is a country where the youth working for the sustainable development. In university different courses running ,and they work for sustainability but in B.Ed. course students ,are 100% involve them self for sustainability.

Materials and Methods

This study used a systematic literature review research approach guided by survey method applied in India ,review's existence enables researchers to concurrently find and map related research ideas. The purpose of this study is to identify the variables that influence teacher performance and competency. Researchers focused on factors that influence teacher performance and competence.

Review literature –

1. (Sambit K Padhi¹, Subrat Kumar Padhi²and Shradhanjali Subedi Mohapatra Associate Professor, Department of Education, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh, ISSN No: 3048-5851 (Online)Vol.1, Spl. Issue No.3, September,2024:34-42©ASSRA, Bhubaneswar In Search of Sustainable Teacher Education System in India A Reflection on the Recommendations of National Education Policy 2020. There two established notions about teacher education: first, every country designs teacher education according to its socio-economic, political, and cultural contexts; and, second, hardly any country is satisfied with its existing teacher education programs. Therefore, each country is trying to strengthen its teacher education system. It is hoped that the analysis of existing teacher education policies and practices will definitely help make teacher education in the country more relevant and quality-oriented in the future. There is a need to re-examine the teacher education curriculum to humanize it and eliminate in human activities and incidents. If we want to continue our march towards an enlightened and humane society, many more possibilities have to be explored to

prepare teachers who can fittingly face challenges posed by the forces of modernization, globalization, and consequent rising aspirations. Teacher education programs have to gear up to meet the emerging needs on the one hand and remain contextual, cost-effective, and continuously transform based on indigenous experiences on the other. So, there needs to be a well-defined structure for the career progression of teachers and teacher educators. Freedom needs to be provided to choose appropriate pedagogy and teaching methods. Linkage needs to be established among qualifications, performance, experience, salary, and promotion. In this connection, it is widely felt that 21st-century Indian human power has to take a leading role in creating a peaceful, prosperous, and progressive society. NEP 2020 is a wonderful document that promises to translate the vision into reality and prepare humanistic and reflective teachers. In conclusion, professionalism needs to be instilled in each and every phase of teacher preparation, starting from conceptualization to evaluation, to prepare professionals who can contribute to the overall improvement of the quality of education. The university departments and teacher education institutions need to play a critical role in transforming the existing teacher education landscape in India to align with the aspirations and recommendations of the National Education Policy (NEP) 2020. Their pivotal role encompasses various aspects, including curriculum design, pedagogical approaches, research initiatives, and the development of a teacher education ecosystem that aligns with the NEP 2020 objectives.

2. Amritpal Kaur , Role of Education for Sustainable Development in India. Research Scholar, Department of Education and Community Service, Punjabi University Patiala, Punjab, India .multiarticlesjournal.com ISSN: 2583-7397. Education for sustainable development (ESD) is very essential to building a sustainable future for India. ESD is important, and the National Education Policy 2020 has included

provisions for integrating it into the educational system. Nevertheless, there are still a number of obstacles preventing ESD from being promoted in India, such as insufficient awareness, infrastructure, inadequate financing, inadequate preparation for teachers, differences in socioeconomic status, an emphasize the importance of traditional schooling and the opposition to change. To get past these obstacles and encourage the successful application of ESD, a multifaceted strategy is required incorporating public funding, community involvement, school reform and raising awareness initiatives. Collaboration and involvement from all stakeholders, including the government, educators, parents, and the general public, are necessary to promote ESD in India. India can build a sustainable, just and egalitarian future by advancing ESD. Thus, at the end, we can say that education for sustainable development for a nation has the potential to foster a more socially and environmentally conscientious, a community that is more prepared to face the problems of the future. Thus, it is imperative that to guarantee a sustainable and successful future for everyone, the school system should give priority to education for sustainable development.

Data Analysis

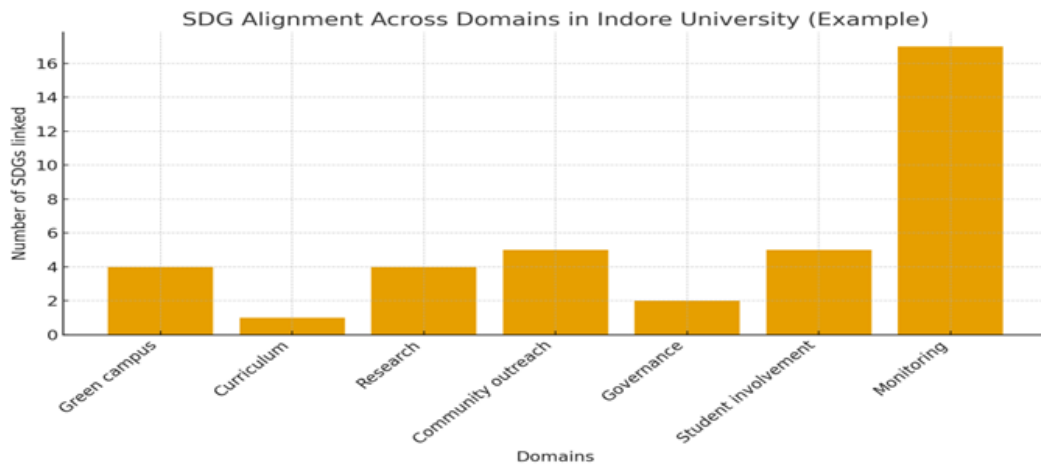
According to the National Education Policy (NEP) 2020, more and more Indian universities are integrating the Sustainable Development Goals (SDGs) into their curricula, pedagogy, and campus activities, even though there are still over 8,600 B.Ed. colleges that specialize in preparing primary and secondary school teachers. With a focus on education for sustainable development (ESD), this integration addresses issues such as gender equality, climate change, environmental protection, and inclusive education. There are, however, very few B.Ed. programs that focus only on sustainability; instead, most include the SDGs into electives, projects, or multidisciplinary modules. With numerous teacher education institutions aligning with SDG 4 (Quality Education) and SDG 13 (Climate Action), India's universities lead the world in SDG contributions. Based on their ESD efforts, research, and community outreach, the prestigious B.Ed. institutions and universities listed below are actively engaged in sustainable development. Location, important SDG emphasis areas, and sample programs are among the data. While not all-inclusive, this focuses on the best instances.

Data extraction

Twenty-five articles that met the requirements were selected for extraction. Researchers can map the article's dominating and important factors by extracting data. search outcomes. The data extraction procedure in this systematic literature review study is separated

College/University	Location	NameKey SDG Integration & Initiatives	B.Ed Program Highlights
Jamia Millia Islamia (JMI) - Institute of Advanced Studies in Education (IASE)	New Delhi	Focus on SDG 4, 5, 13: Environmental projects, gender-inclusive teaching, and community outreach for rural sustainability. Collaborates with UNESCO on ESD.	2-year B.Ed with modules on pedagogy for environmental education and inclusive practices
Lady Shri Ram College for Women (University of Delhi)	New Delhi	SDG 4, 10, 13: Sustainability audits, green campus initiatives, and courses on eco-pedagogy. Ranked high in Times Higher Education	B.Ed with electives in sustainable education and social equity; integrates NEP 2020 ESD framework.

			Impact Rankings for SDG contributions.	
St. Xavier's College of Education,	Patna Bihar		SDG 4, 7, 13: Teacher training on renewable energy education and climate resilience; partnerships with NGOs for green school projects.	2-year B.Ed emphasizing experiential learning on environmental stewardship and community-based sustainability.
Bombay Teachers' Training College (BTTC).	Mumbai, Maharashtra		SDG 4, 12, 13: Digital equity and sustainable innovation in teaching; projects on resource management and reflective pedagogy	B.Ed program with add-on courses on green teaching practices and community sustainability dialogues
Indian Institute of Teacher Education	(IITE)Gandhin agar, Gujarat		SDG 4, 7, 11: Sustainable urban education and energy-efficient campus; research on smart pedagogy for SDGs	.2-year B.Ed integrating ESD across subjects, with projects on renewable energy in schools
Devi Ahilya University	DAVV Indore M.P.		SDG 7 (clean energy), SDG 12 (responsible consumption), SDG 13 (climate action), SDG 15 (life on land)	DAVV has a “Green University Policy” document.dauniv.ac.in Also, DAVV is implementing new affiliation norms for its colleges requiring 10% green cover initially, scaling to 30% over 3 years. The Times of India



Domain / Action Area	SDGs Mentioned	Count
Green Campus	SDG 7, 12, 13, 15	4
Curriculum & Pedagogy	SDG 4	1
Research & Innovation	SDG 9, 6, 11, 13	4
Community Outreach	SDG 11, 1, 3, 6, 13	5
Institutional Governance	SDG 17, 16	2
Student Involvement & Culture	SDG 4, 11, 13, 12, 15	5
Monitoring & Reporting	All SDGs 17	7

Indore City- Work on sustainability in Colleges.

DAVV has a “Green University Policy” document.dauniv.ac.in Also, DAVV is implementing new affiliation norms for its colleges requiring 10% green cover initially, scaling to 30% over 3 years. The Times of India say building energy efficiency, solar power, green space, water recycling, rainwater collection, trash management (composting, segregation), sustainable sourcing, and a decrease in single-use plastics.

Here's a structured method for mapping, analyzing, and suggesting ways the university might align with the Sustainable Development Goals (SDGs) and what is currently known (if any) in order to address "Sustainable Development Goals (2030) in Indore University." If necessary, I can also assist you in creating a plan or case study.

Green University Policy for DAVV: The university has formally implemented environmental sustainability frameworks, according to a "Green University Policy" paper (PDF) for Indore, which is probably for DAVV. Dauniv.ac.in

Green cover is required under affiliation norms: In order to remain connected with DAVV, colleges must make sure that at least 10% of their campus space is green by 2025–2026 (with the possibility of increasing to 30%). This links institutional compliance and environmental sustainability.

Findings-

- Problems and things to think about Departmental coordination: In order to effectively include the SDGs, it must transcend all divisions and not be compartmentalized, encompassing engineering, the arts, sciences, and social work.
- Awareness & Capacity: Training and capacity building in sustainability, ESD, and SDG methodologies may be necessary for faculty, staff, and students.
- Funding and resources: Some projects, including installing solar panels, renovating buildings, and installing monitoring systems, call for a large financial outlay.
- Data collection and measurement: It's not easy to set up metrics and gather data to gauge progress.
- Sustained commitment: To ensure that changes endure across leadership turnover, it must be ingrained in governance, not only in isolated programs.
- Relevance locally: Which SDG targets are given priority must be determined by the local context, which includes urbanization, slum areas, air pollution, and water stress.

Discussion

In India all educational college work on sustainable development ,and Indore is a city famous for its cleanliness. Colleges also work on it, The pursuit of the Sustainable Development Goals (SDGs) for 2030 now heavily relies on environmental education. Programs for environmental education at the university level seek to provide students with the vital awareness, information, and abilities they need to confront environmental issues on a worldwide scale (M. Esteban Ibáñez, D. Musitu Ferrer, L. V. Amador Muñoz, F. M. Claros, and F. J. Olmedo Ruiz, 2020). Evaluating how well these programs can enhance students' sustainability knowledge and abilities is crucial. Furthermore, a significant worry is how these initiatives may affect behavioral shifts among students in support of the SDG 2030 objective. by assessing the many strategies applied in environmental education initiatives.

Conclusion

Approach of “Sustainable Development Goals (2030) in Indore University”, here’s a structured way one can map, analyze, and suggest that the Indore university can align with the SDGs, In Indore there are many big university like DAVV, Dr A.P.J. Abdul kalam University, Oriental University, who are working for the sustainable development .With all the data its proof that India is definitely be reach at the SDGs 2030.

Acknowledgement

I would like to express my sincere gratitude to my colleagues for their invaluable support, and encouragement throughout this research. I am also thankful to my organization Dr. A.P.J Abdul kalam University Indore for providing the necessary resources and an environment that made this work possible.

References-

1. Ansah-Mensah, K., Osman, A., Yalley, C. E., & Adu-Boahen, K. (2023). Global outlook of the SDGs 2030
2. Aulya, A. F., Suparman, N., & Kaunain, S. N. (2022). Evaluation analysis of educational programs. *Journal of Quality Assurance in Islamic Education*, 2(1), 1–8.
3. Effectiveness of Environmental Education Programs for College Students in Enhancing Sustainability Education for SDG's 2030 : A Systematic Literature Review <https://doi.org/10.47945/jqaie.v2i1.605>
4. Bello, I., & Kazibwe, S. (2022). Multinational corporations, education and United Nations development goals: A literature review. *Problemy Polityki*
5. .Bruntland, G “World Commission on Environment and Development” *Our Common Future*, Oxford University Press. 1987.[Report]
6. Gamage KA, Ekanayake SY, Dehideniya SC. Embedding sustainability in learning and teaching: Lessons learned and moving forward—approaches in STEM higher education programmes. *Education Sciences*. 2022 Mar19;12(3):225.[Google Scholar]
7. <https://en.reset.org/knowledge/advancing-sustainabledevelopment-through-education-india>. Jaiswal V, Gupta P “Role of Higher Education for Sustainable Development”
8. http://educationindiajournal.org/home_art_avi.php?path=&id=204#; 2010. Lambrechts W, Hindson J. Introduction: Education for Sustainable Development in a complex and changing world.c2016. [Google Scholar]
9. Ministry of Corporate Affairs, “Report of the Committee on Business Responsibility Reporting” Government of India, 2020. [Report]