



## Environmental Awareness and Environmental Education at the School Level

**Hiran Kanti Mukherjee<sup>1</sup> & Dr. Santanu Biswas<sup>2</sup>**

1. Research Scholar, Department of Education , RKDF University, Ranchi
2. HOD & Associate Professor , Department of Education , RKDF University, Ranchi,  
Mail Id - [santanubb@gmail.com](mailto:santanubb@gmail.com)

### Abstract:

*Environmental education and awareness are crucial in India to overcome the major environmental challenges that the world is currently facing. It has been increasingly obvious in recent years that environmental education must be incorporated into school curriculum to instil in the next generation a feeling of responsibility and sustainability. With increasing environmental challenges such as climate change, biodiversity loss, pollution etc., the role of education in promoting environmental literacy has become more vital than ever before. The National Curriculum Framework(NCF) 2005, early emphasizes the need for interdisciplinary approaches and activity based learning to help students comprehend the complex relationships between human system and the natural environment (NCERT 2005).*

**Keywords:** Environmental Education, Curriculum, Sustainability, NCF, NCERT.

### Introduction:

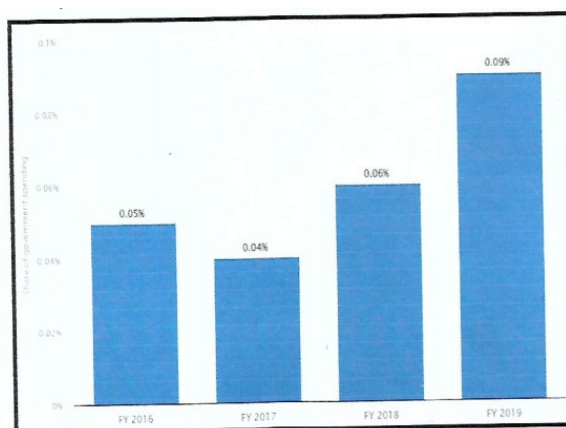
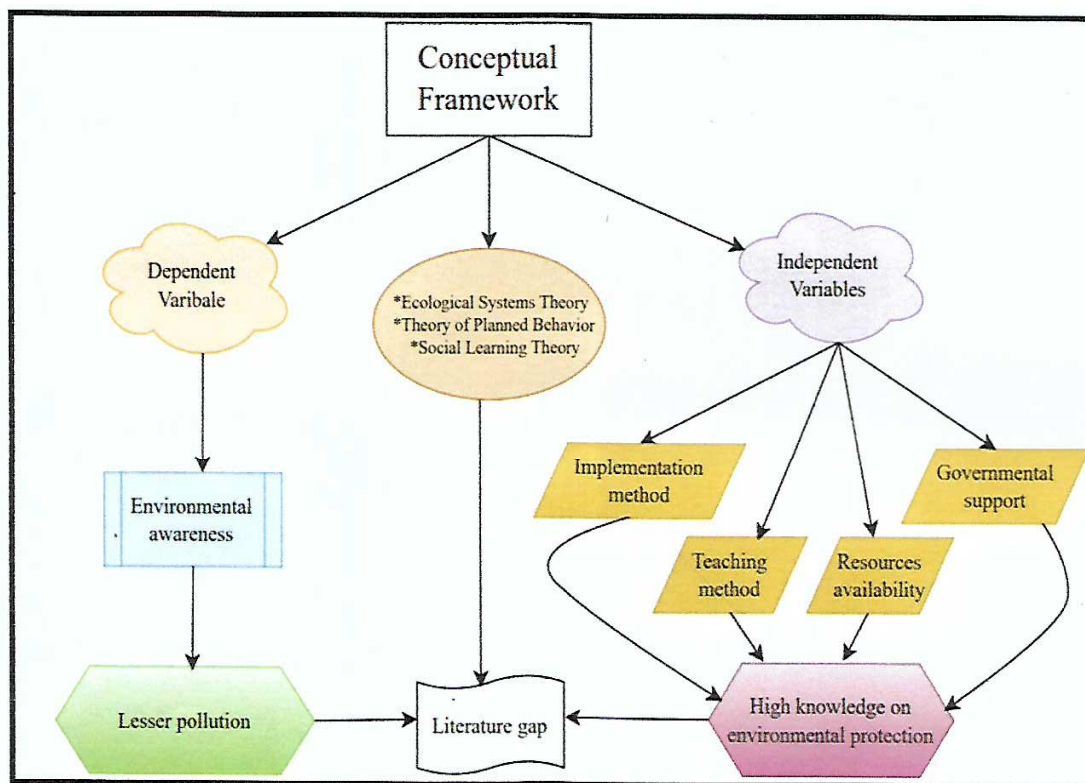


Figure 1.1: Expenditure of the government of India on environmental protection  
(Source: Statista, 2022)

The figure above shows the staggeringly low amount allocated by the Govt. of India for environmental Protection. In this article I want to evaluate the efficiency of environmental education initiatives in raising

environmental consciousness among Indian school students and to pinpoint key elements of successful implementation. The objectives of this article are i) to access the level of environmental awareness among school students. ii) To examine the implementation of environmental education programs in schools, analysing the content, integration and coverage of environmental topics across different grade level. iii) To identify

The obstacles and challenges to achieving good environmental education. iv) to look into the most effective teaching method for increasing environmental education. Actually the students' knowledge, attitude, behaviours while evaluating environmental awareness and education comprises looking into how environmental education programs are being implemented and figuring out the problems and constraints that schools are up against.



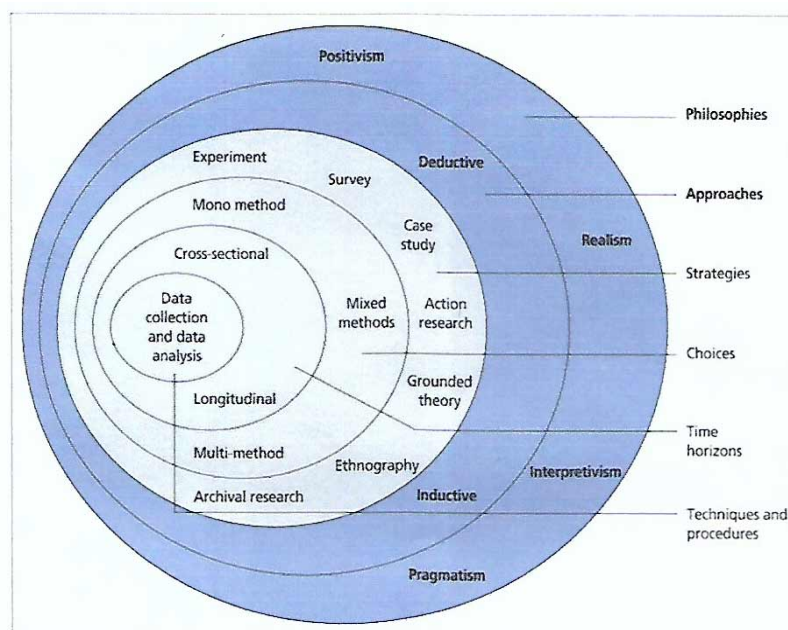
**Figure 2.1: Conceptual Framework**

(Source: Created by draw.io)

The above figure shows that the dependent variable is environmental awareness and the independent variables are implementation method, resources availability and government support. An essential component of ensuring sustainable future is increasing environmental awareness and Indian school students. But we see that students in urban areas have a higher level of environmental awareness than the students of rural areas. A survey was done (Ardoin et al. 2020) which shows that school students of urban areas in Delhi, Mumbai, and Bangalore are much more aware of safe environment than the school students of rural areas in those places.

For environmental awareness among school students in India, the most important measure is the teaching method. Effective teaching strategies are essential for engaging students and promoting environmental awareness and behaviour change. Another effective teaching strategy that promotes student involvement and on sense of responsibility over environmental issues is project based learning. Group talks, debates and role

playing have been found to be useful in encouraging critical thinking and creating dialogue about environmental issues.



**Figure 3.1: Research Onion**

(Source: Fàbregues *et al.* 2021)

The above picture shows the methodology picture which was taken by me and also which is the base of my study for this article. But in this study the ethical questions were of the utmost significance. And due to the small sample size and non-probability sampling system, the result cannot be resonated to a broader populace.

### Environmental Awareness Key:

The effectiveness of arms -on- sports and field Journeys, the integration of environmental subjects across topics, the significance of collaboration with stakeholders and the crucial function of non-teaching groups of workers in offering resources. We can see that practical exercises and field trips depend students' comprehension of environmental issues, integrating environmental topics across subjects fostered a holistic understanding, collaboration with stakeholders promoted awareness and participation, and the support of non teaching staff ensured resource availability. So we can say that this study set out to look into the level of environmental education and awareness among Indian school students. It is also emphasized the disparities in environmental consciousness among Indian school students when considering elements like location, gender inequalities and the implementation of environmental education initiatives.

The findings showed that while a sizable percentage of Indian pupils exhibit a high level of environmental awareness, there are differences between various geographic regions and educational settings. In general awareness level washigher in urban areas than rural, as there was more access to resources, educational opportunities, and infrastructure to the students of the urban areas. Significantly obstacles to successfully adopting environmental education have been noted as the lack of qualified teachers, lack of funding and a focus on exam oriented instruction. So we can say that students' environmental knowledge and awareness can be increased in Indian schools by incorporating hands- on activities and field trips into the curriculum. For example when students engage in practical activities like gardening, garbage management etc. they are more

likely to be interested in environmental themes. Students, who actively participate in these activities, grow in their connection to nature and learn essential information about environmental issues.

Secondly by incorporating environmental issues into a number of subjects, Indian schools can improve environmental education and raise student's awareness. Schools can teach students a comprehensive awareness of environmental issues and how they relate to various areas of living by combining environmental issues with disciplines such as science, social research and even literature.

Thirdly we can say that collaboration with stakeholders is essential in Indian schools for strengthening environmental education and student engagement. Students may broaden their understanding of environmental issues, cultivate responsibility and actively participate in sustainable practices due to this collaborative approach.

Fourthly in Indian schools the assistance of non-teaching personnel in supplying materials for environmental education plays a crucial role in assuring successful learning experiences and building environmental consciousness among students. Their commitment and efforts are essential for the fostering a climate that supports environmental education and the advancement of sustainable practices.

### **Conclusion:**

In conclusion from the above discussion it is clear that even though this work provided crucial information regarding how environmental education is offered to Indian students, there are some directions for similar studies. The attention should be given to the effects of policy interventions on environmental consciousness and behaviour, the contribution of informal schooling to environmental sustainability, and the lengthy time period consequences of environmental schooling on student's profession selections and environmental advocacy.

### **References:**

- Alexander, S.M., Jones, K., Bennett, N.J., Budden, A., Cox, M., Crosas, M., Game, E.T., Geary, J., Hardy, R.D., Johnson, J.T. and Karcher, S., 2020. Qualitative data sharing and synthesis for sustainability science. *Nature Sustainability*, 3(2), pp.81-88.
- Ardoin, N.M., Bowers, A.W. and Gaillard, E., 2020. Environmental education outcomes for conservation: A systematic review. *Biological Conservation*, 241, p.108 -224.
- Ardoin, N.M., Bowers, A.W., Roth, N.W. and Holthuis, N., 2018. Environmental education and K-12 student outcomes: A review and analysis of research. *The Journal of Environmental Education*, 49(1), pp.1-17.
- Bal, M., & Maity, A. (2019). Impact of economy & sociability on educational development of tribal women. *International Journal of Research and Analytical Reviews*, 6(2).
- Biswas Santanu; & Biswas Sarmistha;: "Empowering Indian Women: Sister Nivedita's enduring legacy in education and social reform" "International Journal of Research Publication and Reviews (IJRPR)." 5(6), 2024, Page: 1230 – 1235.
- Biswas Santanu; & Kumari Madhu;: "Integrating indigenous wisdom: transforming higher

education with Bhartiya knowledge systems.” “American Journal of Social and Humanitarian Research.” 5(2), 2024, Page: 132-142.

- Biswas Santanu; & KumariMadhu; “The Burden of care: A systematic review of parental stress in families of children with intellectual disabilities.” “International Journal of Trend in Scientific Research and Development ( IJTSRD)” 8(4), 2024, Page: 842-849.
- Biswas Santanu; Banerjee Rabin; “Attitude towards integrating ICT in the teaching learning in the higher secondary level: A survey,” “International Journal of Research Publication and Reviews (IJRPR)”, 5(6), 2024, Page: 1-4.
- Biswas, Santanu; & Chatterjee, Pankaj; “Students’ Attitudes towards E-Learning from a Socio-Economic Perspectives.” “Bharati International Journal of Multidisciplinary Research & Development (Bijmrd)”. 2(11), 2024, Page: 1-12.
- Daripa, Soumili; Khawas, Koomkoom; Das, Sanatanu.,Dey; Ratan. Kumar; &Kuila, Biplab Kumar; “Aligned Proton Conducting Graphene Sheets via Block Copolymer Supramolecular Assembly and Their Application for Highly Transparent Moisture Sensing Conductive Coating.” “*CHEMISTRY SELECT, C*” 4,2019, Page: 7523 -7531.
- Khawas, Koomkoom.; Daripa, Soumili.; Kumari, Pallavi.; Bera, Manas Kumar; Malik, Sudip; &Kuila, Biplab Kumar; : “Simple Synthesis of End Functionalized Regioregular Poly(3-Hexyl thiophene) by Catalytic-Initiated Kumada Catalyst Transfer Polymerization.” JOURNAL OF POLYMER SCIENCE, PART A: POLYMER CHEMISTRY” 57, 2019, Page: 945- 951.
- Khawas, Koomkoom; & Mishra, P K; “Advantages And Challenges of Biodiesel Producing Microalgae.” “BHARATI INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH & DEVELOPMENT (BIJMRD)” 2(8), 2023, Page: 160- 163.
- Maity, A. (2020). Collaborative active learning: An effective study at training colleges. In *Transition from traditional teaching methodology to online teaching* (ISBN: 978-81-946375-3-0). Redshine Publication.
- Maity, A. (2020). Investigating the benefits of project-based learning in science education. In *New trends of teaching, learning and technology* (Vol. 1). Redshine Publication.
- Maity, A. (2025). Teacher effectiveness in relation to ICT acquaintance among secondary teachers of Medinipur District of West Bengal: A study on demographic variables. *American Journal of Social and Humanitarian Research*, 6(5), 1108–1118. <https://globalresearchnetwork.us/index.php/ajshr/article/view/3641>
- Maity, A., & Sanuar, S. (2020). Women’s access to higher education in West Bengal in open distance learning system. *Journal of Emerging Technologies and Innovative Research*, 7(3).
- Maity, A., et al.(2023). Job satisfaction among secondary school teachers in Paschim Medinipur district in the present context. *Journal of Pharmaceutical Negative Results*, 14(3).
- Maity, A., Sanuar, S., & Ghosh, D. (2024). An assessment of the socio-economic status of the



minority girls students at secondary level in Paschim Medinipur district of West Bengal. *Educational Administration: Theory and Practice*, 30(5), 9123–9127. <https://doi.org/10.53555/kuey.v30i5.4522>

- Maity, A. et al (2023). Correlation between study habit, test anxiety and academic achievement of the male and female B.Ed. college students. *Journal for ReAttach Therapy and Developmental Diversities*, 6(9s), 1872–1880. <https://doi.org/10.53555/jrtdd.v6i9s.2660>
- Mishra, Prafull.Ranjan; & Khawas, Koomkoom; : “Advantages And Challenges of Biodiesel Producing Microalgae.” *BHARATI INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH & DEVELOPMENT (BIJMRD)*”2, 2024, Page: 160-163.
- Pal, Dibyarupa; &Khawas, Koomkoom; : “Potential Sources and Uses of Chitin and its Polymers: a Review.” “*JOURNAL OF DISCOVERIES INAPPLIED AND NATURAL SCIENCE*” 2, 2024, Page:1-12.
- [protection/&sa=D&sourcedocs&ust=1687071070526914&usg=AOvVaw38DgRqpd2J79JVtVWSnh R](#) [Accessed on: 10.06.2023]
- Sinha, Amardeep; Kumari, Nilu; &Khawas, Koomkoom; : “Role of Nuclear Chemistry in Environmental Applications.” “*BHARATI INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH & DEVELOPMENT (BIJMRD)*”2, 2024, Page: 61-70.
- Statista, 2022. Share of government spending on environmental protection in India from financial year 2016 to 2019. Available at: <https://www.statista.com/statistics/1170547/india-share-of-government-spending-on-environmental->
- Statista, 2023. Most polluted cities in India 2022, by PM2.5 concentration. Available at: <https://www.statista.com/statistics/1284298/average-pm25-in-regional-cities-in-india/#>[Accessed on: 15.06.2023]
- Statista, 2023a. Consumer views on health and sustainability in India as of August 2022, by level of usage. Available at: <https://www.statista.com/statistics/1344094/india-consumer-view-on-health-and-sustainability-by-level-of-usage/> [Accessed on:15.06.2023]
- Toropova, A., Myrberg, E. and Johansson, S., 2021. Teacher job satisfaction: the importance of school working conditions and teacher characteristics. *Educational review*, 73(1), pp.71-97.
- Turrini, T., Dörler, D., Richter, A., Heigl, F. and Bonn, A., 2018.The threefold potential of environmental citizen science-Generating knowledge, creating learning opportunities and enabling civic participation. *Biological Conservation*, 225, pp. 176-186.
- Verlic, B., 2019. Bearing worlds: Learning to live-with climate change. *Environmental Education Research*, 25(5), pp.751-766.
- Yong, J.Y., Yusliza, M.Y., Ramayah, T., ChiappettaJabbour, C.J.,Sehnm, S. and Mani, V., 2020. Pathways towards sustainability in manufacturing organizations.Empirical evidence on

the role of green human resource management. *Business Strategy and the Environment*, 29(1), pp.212-228.

- Zafar, M.W., Shahbaz, M., Sinha, A., Sengupta, T. and Qin, Q., 2020. How renewable energy consumption contribute to environmental quality? The role of education in OECD countries. *Journal of Cleaner Production*, 268, p. 122149.

**Citation: Mukherjee. H. K. & Biswas. Dr. S., (2025) “Environmental Awareness and Environmental Education at the School Level”, *Bharati International Journal of Multidisciplinary Research & Development (BIJMRD)*, Vol-3, Issue-04, April-2025.**