

AN EVALUATION OF GREEN PROTOCOL IMPLEMENTATION IN THE SCHOOLS UNDER THE COCHIN MUNICIPAL CORPORATION

By

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Abstract

The present aims to evaluate the implementation of the Green Protocol in CBSE-affiliated and Government-aided schools under the Cochin Municipal Corporation. The study uses primary data collected from both the officials and the students of 60 schools out of 138 schools under the Cochin Corporation with a structured questionnaire prepared under the Green Protocol framework of the Haritha Keralam mission. The findings reveal a high level of compliance of schools with Green Protocol guidelines, with the majority of the schools practising waste segregation, promoting reusable materials, and maintaining clean and green campus environments. To measure the extent to which institutions reduce waste generation, Waste Minimisation Index were used, and it is found that CBSE institutions demonstrate slightly better the waste minimisation practices compared to State institutions, with a mean score of 0.941. Resource Recovery Index was used to measure the effectiveness of the institutions in recovering or reusing waste materials, and it is found that CBSE institutions may be more effective in recovering and reusing resources, with a mean score of 0.971. Behaviour Change Index was used to assess the level of environmentally responsible behaviour among staff, and students and it is found that behavioural practices related to environmental awareness and sustainable actions appear to be somewhat stronger in CBSE institutions, with a mean score of mean value 0.700 and Overall Environmental Impact Score also showed higher performance among CBSE institutions, with a higher mean score of 0.888 compared to the schools. Comparative analysis indicates that CBSE schools perform slightly better in waste minimisation, infrastructure, and overall environmental impact, whereas State schools demonstrate stronger administrative compliance. However, challenges still exist in areas such as composting facilities, e-waste management, and liquid waste treatment.

Keywords: *haritha keralam mission, green protocol, green certification, sups, sustainability, green schools.*

Introduction

Environmental sustainability is growing as a major worldwide imperative in the face of rising problems such as climate change, rapid urbanization, depletion of natural resources and increasing volumes of solid waste. Among the various sectors contributing to sustainable development, educational institutions have a uniquely significant position, since they mould values, attitudes and behaviours at an early and formative stage of life. Schools in particular are not just centres of academia learning but also spaces where social responsibility, ethical conduct and environmental awareness can be developed. Governments and International agencies are emphasizing the role of schools in promoting sustainable development goals through education, infrastructure and daily habits as a result of realizing this potential

Environmental education in India has gradually changed from theoretical instruction to more action-oriented learning. Students are now encouraged to participate in eco-clubs, work on practical sustainability projects and

adopt environmentally conscious behaviours outside of the classroom. National programmes such as National Green Corps support the formation of Eco-clubs in thousands of schools, enabling students to participate in activities related to biodiversity, waste management, water and energy conservation and resource planning (*Environment Education Programme (EEP Kerala) – Kerala State Council for Science, Technology and Environment (KSCSTE), Government of Kerala*).

The state has worked hard to make public institutions more state-level programs and by encouraging schools to adopt eco-friendly practices, cut down on waste and work on campus sustainability projects. Kerala State Environmental policy (2009) act as a guiding tool to integrate environmental conservation into Kerala's development framework and to guarantee clean air, water, soil and food for both current and future generations (*Government of Kerala. (2009). Kerala State Environment Policy 2009. Department of Environment, Government of Kerala*).

In this context, applying the Green Protocol in schools signifies a tactical

initiative to integrate sustainability into daily institutional operations. The Green Protocol aims to cultivate a culture of environmental responsibility among students, teachers and administrative staff by focusing on waste reduction, particularly the removal of single use plastics (SUPs) and encouraging eco-friendly alternatives. It also motivates schools to serve as exemplary institutions, showcasing sustainable living methods that can be duplicated in homes and communities. This program is a component of wider efforts by state and local governments, particularly under the

Haritha Keralam Mission aims to establish a clean, green and resilient Kerala through collaborative action. Haritha Keralam Mission (HKM), initiated by the Kerala Government on December 8, 2016, acts as a comprehensive program for environmental sustainability within the state. The aim of promoting cleanliness, water abundance, water security and safe food production. The Mission's objectives are Water, Hygiene and Harvest. Haritha Keralam Mission consists of three sub-missions related to water conservation,

sanitation and waste management and agriculture. Mission activities are carried out practically under the leadership of local self-government bodies (*Department of Environment and Climate Change, Government of Kerala, "Mission Profile – Haritha Keralam Mission*).

In Kochi, the Cochin Municipal Corporation is essential in managing the implementation of the Green Protocol in its area. In this context, the research emphasizes evaluating the application of the Green Protocol in CBSE Affiliated and Government Aided Schools under the jurisdiction of the Kochi Corporation. By examining both categories of schools, the study seeks to develop an understanding of institutional practices, challenges and outcomes associated with sustainable initiatives. The analysis extends beyond mere compliance with prescribed guidelines to explore the depth of integration of environmental principles into everyday school life, whether the green protocols are correctly followed by schools. The research helps in understanding the possible contribution of Green Protocols in encouraging long term environmental stewardship in future

generations, in line with Kerala's broader environmental policy vision.

Review of Literature

Several Studies which examine the sustainability, green campuses, environmental education and plastic waste management is reviewed. It helps us to understand the extent of implementation of green protocol in schools.

Pradeep Kumar Paswan and Deepa Mehta (2025) examine the body of search on the value of green schools in advancing environmental conservation via instruction. It emphasizes the necessity of including sustainability at all educational levels and links the origins of environmental education to major world events like the Rio Earth Summit, the Tbilisi Declaration and the United Nations Conference on the Human Environment. Green Schools are establishments that integrate environmentally friendly facilities with hands on environmental education. They make reference to frameworks that emphasize waste management, water conservation, energy efficiency and healthy learning environments such as LEED and Collaborative for

High Performance Schools. The study looks at benefits like financial savings, enhanced student performance, environmental awareness and support for the UN sustainable Development Goals particularly SDG 4 (Quality Education) and SDG 13 (Climate Action) are highlighted in the review. The study further highlights that environmental value, skills and responsible citizenship, green schools play a critical role in achieving sustainable development, despite obstacles including funding limitations and policy gaps. It also urges greater institutional and governmental support.

Stephanie Kay Barr (2011) explores how curriculum, school culture and facilities collaborate to advance sustainability in US LEED-certified schools. The study emphasises the collaborative element of whole-school sustainability and is based on surveys of community members, building professionals and staff. According to the authors, shared value serve as the cornerstone of sustainable schools, impacting curriculum, school culture and facility design. Strong leadership, teamwork, high standards and student

involvement are important qualities. With elements like exposed systems and indoor-outdoor connections that promote experiential learning, green buildings are viewed as educational resources. In order to match facilities with instructional objectives, the study highlights an integrated design process that involves principals, instructors, students, and architects from the outset. It also points out that project based, student-centered learning is frequently employed in sustainability-focused curricula to foster environmental stewardship and critical thinking. Overall, the study offers a comprehensive model in which values influence curriculum, infrastructure and culture resulting in a distinctive and dynamic system that improves educational and environmental results.

Agus Sugiarto, Cheng-Wen Lee, and Andrian Dolfriandra Huruta's (2022) paper examines international research on sustainable campuses in higher education. The report divides campus sustainability initiatives into three primary categories: physical facilities, learning and educational resources

and behavioural. Active community involvement and leadership commitment are recognised as important sustainability drivers in the behavioural dimension. University administrators are essential in establishing regulations and promoting eco-friendly behaviour on campus. In order to minimize resource consumption, the learning dimension emphasizes incorporating sustainability into curriculum and encouraging eco-friendly technology like e-learning and paperless systems. Water conservation, waste management, green transportation systems, energy efficiency and renewable energy adoption, and sustainable master planning are all included in the physical facilities dimension. Overall, the report recommends for additional long term and varied research to improve sustainability outcomes in higher education and offers a structured framework of priority areas to help universities execute sustainable campus programs.

George Kats (2006) examines 30 green schools constructed in the US between

2001 and 2006. According to the study, green schools are around 1.7% more expensive to build, but over the course of their existence, they save energy, consume less water, enhance health and improve learning outcomes, all of which result in financial benefits that are about 20 times greater. Green schools cut operating expenses and their impact on the environment by using roughly 33% less electricity and 32% less water. Additionally, they reduce emissions of pollutants like carbon dioxide and particulate matter, which improves public health. Significant health and educational advantages are highlighted in the paper, such as better indoor air quality, lower absenteeism, increased teacher retention, and 3-5 % gains in student test scores. It also highlights how renewable energy and green building projects have a good job impact. All things considered, the study shows that green schools.

Nirmala Padmanabhan, S. M. Mohankumar and Karthika K. (2017) their study which was published by the Decentralization Analysis Cell under the Gulayti Institute of Finance and

Taxation, the study looked at how Grama Panchayats handled solid and liquid waste in Kerala. The study examined the distribution and use of funds for environmental projects among Panchayats and discovered that, in comparison to total development spending, waste management and environmental protection expenditures were very low. The authors discovered substantial amounts of solid waste generation, with households accounting for the majority, using primary surveys, garbage audits and water quality analysis in a few Panchayats. The study also noted that while plan money utilization remained low, Panchayats relied significantly on programs like the Mahatma Gandhi National Rural Employment Guarantee Scheme to carry out environmental initiatives. To guarantee sustainable waste management at the local level, the authors suggested an integrated environmental management plan, improved institutional processes, encouragement of waste segregation at the source, composting of organic waste and behavioural change initiatives.

Sharma and Jain (2019) discussed the expanding environmental challenge brought on by rising plastic consumption and insufficient waste management systems by looking at the origins and makeup of plastic debris, emphasizing how common single-use plastics are and how persistent they are in both terrestrial and marine environments. They underlined that inappropriate disposal methods, such as open dumping and burning, pose major health concerns to the public and degrade land, water and air. The study also examined current waste management practices, such as energy recovery, recycling and policy interventions and found implementation gaps in poor nations. The authors illustrated the significance of expanded producer responsibility, community involvement, and source segregation in attaining sustainable results through a variety of case studies. The study, which was published by TERI Press, comes to the conclusion that efficient management of plastic trash requires an integrated strategy that incorporates technological innovation, legal

frameworks and behavioural modification.

Nirmala Padmanabhan and Tomy (2020) emphasise the transition of Kerala's solid waste management system from a centralised disposal model to a decentralised, resource-based approach is examined, emphasizing the roles of Local Self Government's, source level treatment and policy reforms. The paper emphasizes how land limits, population density and rising consumption habits have increased trash generation while also reducing disposal alternatives. It highlights Kerala's policy change towards decentralized waste management, where Local Self Governments are crucial to source level treatment and segregation. Nonetheless, the authors point out enduring issues such as insufficient technical capability, inconsistent regional implementation, inadequate monitoring and restricted financial viability. In order to guarantee long-term environmental and financial sustainability, the study indicates that better institutional coordination, enhanced data systems

and the incorporation of financial incentives are necessary for efficient waste management in Kerala.

Walshe, Perry, & Healy (2025) in their article used survey data from 2,429 students between the ages of 11 and 14, they investigated secondary school student's experiences and expectations of climate change and sustainability education (CCSE) in England. The results show that although the majority of students are exposed to climate change concepts through courses like science and geography, the coverage is frequently disjointed, shallow and inadequately related to practical applications. Students expressed a significant need for learning that goes beyond theoretical understanding to include real-world applications, conversations focused on the future and chances for active participation through projects, outdoor learning and community service. The study also identified disparities in CCSE experiences associated with socioeconomic status, indicating that different access to effective climate education. Additionally, the authors stress that interdisciplinary curriculum

integration, better teacher preparation, and institutional support are effective CCSE in order to equip with the agency, knowledge and skills necessary to address climate and sustainability issues in a positive way.¹

Shanu N. Nazar (2018) analyse the Green Protocol's implementation and effects in Kerala, presenting it as a trailblazing waste-minimization program that gives the solid waste management hierarchy's "reduce" principle first priority. The report emphasises that the Green Protocol's main goals are to discourage the use of single use packaging, plastic, paper, thermocol and other throwaway materials while encouraging reusable substitutes and ecologically friendly waste management techniques. The study shows that the protocol has been successfully applied in large-scale public events, religious festivals, educational institutions and social functions, greatly reducing the generation of non-biodegradable waste, using secondary data from government reports, mission documents and institutional records.

The Green Protocol's successful implementation on significant occasions like the 2015 National Games is regarded as a turning point, demonstrating how public involvement, coordinated institutional support and volunteer mobilization through Haritha Karma Sena may result in nearly zero waste outcomes. The study also highlights the economic and environmental advantages of trash reduction, such as lower costs, less strain on disposal infrastructure and increased resource efficiency.

Sini (2019) examine the Green Protocol, emphasising its role in tackling waste generation caused by consumerism and inefficient waste management techniques. According to the study, the Suchitwa Mission's Green Protocol places a high priority on waste reduction by prohibiting the use of plastic and encouraging the use of reusable, environmentally friendly substitutes. The study shows that policy enforcement in conjunction with public awareness, institutional involvement and community involvement has greatly decreased plastic waste across public events,

schools, government offices and social functions using secondary data and fields insights from Kannur district. According to the results, the Green Protocol has improved waste governance at the local level, encouraged behavioural change and developed a participatory approach to environmental management. According to author, Kerala's Green Protocol is an affordable and reproducible policy framework for attaining environmental sustainability through cooperation and legal assistance.

Research Problem

Over the recent years, sustainability in the environment has become an important topic, especially in the backdrop of the increasing problems of waste generation, plastic pollution and environmental degradation. Education institutions are needed in order to sensitize students on issues surrounding the environment and enable them to act responsibly. Importantly, schools have a vital role to play in helping students to acquire environmental-friendly habits at an early age and to promote

environmentally friendly attitudes by reducing waste, avoiding single-use plastic material and promoting the correct waste management systems.

Although supportive policy frameworks and institutional mechanisms exist, the level and efficacy of Green Protocol implementation differ significantly among schools. Variations in physical infrastructure, administrative management, financial and technical support, along with the degree of environmental consciousness among educators, students and parents greatly affect the extent to which sustainability practices are embraced. Often, schools that have superior facilities and proactive leadership can implement Green Protocol Guidelines more efficiently, whereas institutions with limited resources encounter practical challenges in converting policy directives into actual practices. In a city like Kochi characterized by dense population and varied socio-economic conditions these disparities will be projected, highlighting the necessity to explore how contextual elements influence the results of

environmental efforts in educational settings.

Objectives of the Study

- (i) To examine compliance with government orders related to the Green Protocol, including the appointment of nodal officers and prohibition of disposable items.
- (ii) To analyse the environmental impact of Green Protocol implementation in terms of waste minimization and promotion of sustainable school environments.
- (iii) To identify implementation gaps and institutional constraints affecting the economic sustainability of Green Office initiatives.

Methodology of the Study

Both primary and secondary data is used for the study. The primary data is collected from the schools under cochin municipal corporation using simple random method. As per the discussion from the officials of Cochin Municipal corporation there are 138 schools in the cochin municipal corporation.

Primary data was collected from the officials and students of 60 schools selected through a simple random method. Using a structured questionnaire schedule created based on the Green Protocol evaluation methodology created under the Haritha Keralam Mission, primary data were gathered through field visits to schools. Major Green Protocol components, including the appointment of nodal officers, the implementation of programs that adhere to Green Protocol standards, the reduction of paper waste, the prohibition of disposable and plastic items, the use of reusable containers, waste segregation practices, the availability of color-coded bins, facilities for the composting or biogas, the management of inorganic and e-waste, liquid waste management systems, sanitation facilities, the creation of green clubs, the display of directive boards, public cleanliness standards and the creation of vegetable and flower gardens, were all covered by the questionnaire. A maximum score of 100 points was used for the evaluation and points were given based on how well the

guidelines of the Green Protocol were followed.

Photographs were gathered as supporting documentation, and direct observation was also done during school visits to validate the answers.

Major Secondary sources of data are the Government reports, policy documents, official mission publications, research articles and scholarly journals were the sources of secondary data about the Green Protocol's implementation under the Haritha Keralam Mission and Suchitwa Mission.

The study uses statistical tools for the scientific analysis of the objectives. Percentage analysis was used for presenting the data. In addition to it different index such as Waste Minimization Index, Comparative analysis and the Chi-square test were also used.

Results and Discussions

1. Nodal officers have been appointed by a substantial majority (86.7%), guaranteeing organized oversight of Green Protocol operations.

Program implementation also demonstrates constant adherence; non-compliance with established environmental norms, while the majority state that requirements are followed regularly or always.

2. Waste reduction strategies are used extensively. 93.3% of schools impose limits on plastic and throwaway items, and more than 83% of schools have taken action to reduce paper usage. Reusable container usage among staff members is remarkably high, suggesting a strong behavioural fit with sustainability goals.
3. Systems for managing operational waste are mostly well-established. The majority of establishments use staff-level waste segregation, separate trash cans and reusable systems. Composting facilities are still scarce, especially in state schools, although inorganic waste management plans are being implemented more successfully.
4. Overall, environmental infrastructure performs well. The majority of schools uphold strict public hygiene regulations, Green Office Committees and hygiene facilities. However, there are still gaps in the management of liquid waste and the disposal of e-waste, suggesting areas that need better monitoring systems and infrastructure.
5. With 90% of schools maintaining flower gardens and encouraging environmental aesthetics, green campus activities are clearly visible. Wider acceptance is required, despite the fact that several institutions have set up Green Office Boards. Although schools have made great strides overall, certain changes can guarantee more consistent sustainability results.
6. The Cochin Municipal Corporation's Sate and CBSE schools (N=60) are compared graphically in terms of sustainability practices. According to the Nodal Officer implementation pie chart, 21.7% of institutions are CBSE schools with officers, while 65% of institutions are State schools with appointed

officers. Overall administrative compliance is relatively high, with only 6.7% falling into the “No” category. State institutions are more consistent, according to the Green Protocol adherence chart. While CBSE institutions exhibit somewhat lower consistent adherence, about 55% of State schools always or most frequently follow the guideline. Due to widespread partial implementation, no institution reported total non-compliance.

7. Infrastructure deficiencies are highlighted by the dispersion of compost facilities. 50% of State institutions do not have compost facilities, compared to 18.3% of CBSE and 21.7% of state schools. This implies that infrastructure for composting is still a significant issue in need of improvement, especially in state institutions.
8. The Green Protocol implementation tool has moderate internal consistency, according to the reliability analysis for Objective 1, which yielded a Cronbach's alpha of 0.663. This score indicated that

instrument examines several aspects of institutional compliance rather than a single construct and is appropriate for exploratory study.

9. With 86.7% of schools appointing nodal officers, an analysis of Nodal Officer appointments reveals good compliance. The Chi-square test ($p=.144$) revealed no statistically significant correlation between institution type and appointment status, despite the fact that State schools (90.7%) outperformed CBSE schools (76.5%).
10. 93.3% of schools enforced the restriction on throwaway items, indicating a high level of policy acceptance. Overall compliance scores across CBSE and State schools did not significantly differ, according to Independent Samples t-test results ($p=.702$) suggesting generally comparable adherence levels.
11. Reliability analysis for Objective 2 produced a Cronbach's alpha of 0.681, indicating that environmental practice indices had

adequate consistency. In comparison to State schools, CBSE schools score higher on composite indices for Waste Minimization (0.941), Infrastructure (0.941), resource recovery (0.971), Behaviour Change (0.700) and Overall Environmental Impact (0.888).

12. Positive but statistically insignificant correlations between staff practices and leadership were found in Objective 3 analysis. Although segregation rates were greater in schools with Nodal Officers (94.2%) than in those without (75%) a significant connection was not confirmed by Chi-square results ($p=0.162$).

13. In a similar vein, compost facilities and staff segregation had a perfect descriptive correlation (100% vs 86.1%) however statistical significance was not reached ($p=0.162$). nodal Officer appointments and total implementation scores had a little but significant positive correlation ($r=0.261$, $p=0.044$) according to

correlation analysis, suggesting that leadership improves results.

Conclusions Drawn

1. Nodal officers have been appointed by a substantial majority (86.7%), guaranteeing organised oversight of Green Protocol operations. Program implementation also demonstrates constant adherence; non-compliance with established environmental norms, while the majority state that requirements are followed regularly or always.
2. Waste reduction strategies are used extensively. 93.3% of schools impose limits on plastic and throwaway items, and more than 83% of schools have taken action to reduce paper usage. Reusable container usage among staff members is remarkably high, suggesting a strong behavioural fit with sustainability goals.
3. Systems for managing operational waste are mostly well-established. The majority of establishments use staff-level waste segregation, separate trash cans and reusable systems. Composting facilities are

still scarce, especially in state schools, although inorganic waste management plans are being implemented more successfully.

4. Overall, environmental infrastructure performs well. The majority of schools uphold strict public hygiene regulations, Green Office Committees and hygiene facilities. However, there are still gaps in the management of liquid waste and the disposal of e-waste, suggesting areas that need better monitoring systems and infrastructure.
5. With 90% of schools maintaining flower gardens and encouraging environmental aesthetics, green campus activities are clearly visible. Wider acceptance is required, despite the fact that several institutions have set up Green Office Boards. Although schools have made great strides overall, certain changes can guarantee more consistent sustainability results.
6. The Cochin Municipal Corporation's State and CBSE schools (N=60) are compared

graphically in terms of sustainability practices. According to the Nodal Officer implementation pie chart, 21.7% of institutions are CBSE schools with officers, while 65% of institutions are State schools with appointed officers. Overall administrative compliance is relatively high, with only 6.7% falling into the "No" category. State institutions are more consistent, according to the Green Protocol adherence chart. While CBSE institutions exhibit somewhat lower consistent adherence, about 55% of State schools always or most frequently follow the guideline. Due to widespread partial implementation, no institution reported total non-compliance.

7. Infrastructure deficiencies are highlighted by the dispersion of compost facilities. 50% of State institutions do not have compost facilities, compared to 18.3% of CBSE and 21.7% of state schools. This implies that infrastructure for composting is still a significant issue in need of improvement, especially in state institutions.

8. The Green Protocol implementation tool has moderate internal consistency, according to the reliability analysis for objective 1, which yielded a Cronbach's alpha of 0.663. This score indicated that instrument examines several aspects of institutional compliance rather than a single construct and is appropriate for exploratory study.
9. With 86.7% of schools appointing nodal officers, an analysis of Nodal Officer appointments reveals good compliance. The Chi-square test ($p=.144$) revealed no statistically significant correlation between institution type and appointment status, despite the fact that State schools (90.7%) outperformed CBSE schools (76.5%).
10. 93.3% of schools enforced the restriction on throwaway items, indicating a high level of policy acceptance. Overall compliance scores across CBSE and State schools did not significantly differ, according to Independent Samples t-test results ($p=.702$) suggesting generally comparable adherence levels.
11. Reliability analysis for Objective 2 produced a Cronbach's alpha of 0.681, indicating that environmental practice indices had adequate consistency. In comparison to State schools, CBSE schools score higher on composite indices for Waste Minimization (0.941), Infrastructure (0.941), resource recovery (0.971), Behaviour Change (0.700) and Overall Environmental Impact (0.888).
12. Positive but statistically insignificant correlations between staff practices and leadership were found in Objective 3 analysis. Although segregation rates were greater in schools with Nodal Officers (94.2%) than in those without (75%) a significant connection was not confirmed by Chi-square results ($p=.162$).
13. Compost facilities and staff segregation had a perfect descriptive correlation (100% vs 86.1%) however statistical significance was not reached ($p=0.162$). According to correlation analysis, nodal officer appointments and total

implementation scores had a little but significant positive correlation ($r=0.261$, $p= 0.044$) which shows that leadership can improve results.

Conclusion

The study reveals that the implementation of the Green Protocol in CBSE-affiliated and Government-aided schools under the Cochin Municipal Corporation has been largely successful in promoting environmentally sustainable practices. Majority of the schools surveyed have shown a strong commitment to Green Protocol guidelines through the appointment of nodal officers, restrictions on single-use plastics and disposable items, reduction of paper usage, waste segregation, and the maintenance of clean and green campus environments.

The findings indicate that CBSE schools generally performed slightly better compared to state schools in areas such as waste minimization, resource recovery, infrastructure, and overall environmental impact. At the same time, State schools exhibited stronger administrative compliance in

appointing nodal officers and adhering to Green Protocol guidelines.

However, it is also identified that certain challenges still exist such as the lack of adequate composting facilities, deficiencies in e-waste and liquid waste management systems, and the uneven adoption of Green Office Boards. These challenges highlight the need for improved infrastructure and monitoring mechanisms. The study also reveals that appointment of nodal officers positively influences the overall implementation of Green Protocol activities.

Overall, the Green Protocol has significantly contributed to waste reduction, environmental conservation, and the development of eco-friendly habits among students and staff of the schools in cochin corporation. Strengthening institutional support, enhancing infrastructure and ensuring continuous monitoring and awareness programmes can further improve the effectiveness of Green Protocol implementation and help schools serve as model centres of sustainable development in Kerala.

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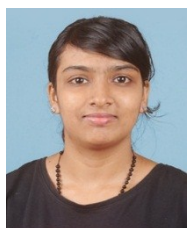
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Renjini S. is the District Coordinator for the Ernakulam district for the Haritha Keralam Mission. She has coordinated workshops for the Net Zero Carbon Kerala campaign in local islands such as Goshree islands promoting carbon-neutral practices while protecting people's incomes and livelihoods. She has been involved in analysing public water budgets to make families accountable for their water usage and to plan sustainable conservation interventions. She is also a guide to agricultural sub-missions, promoting organic farming, the cultivation of fallow lands, and the Pachathuruth (green islet) wasteland restoration projects. She launched community-led projects, such as the Mazhayarivu workshop, installing rain gauges at neighborhood residences to measure rainfall, study local patterns, and aid disaster management
