Integrating Psychology and Culture to Promote Pro-environmental Behavior in Sri Lanka

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***Abstract*— Plastic pollution and environmental degradation are pressing challenges in Sri Lanka, posing significant threats to health, biodiversity, and sustainability. While regulatory measures exist, community-level behavior change remains underexplored, particularly when viewed through the lens of Sri Lanka's cultural values. This study develops a conceptual framework that integrates global psychological theories with local cultural traditions to promote pro-environmental behavior. A narrative literature review was conducted, drawing on peer-reviewed articles, policy reports, and cultural texts published between 2015 and 2025. Sources were selected for their relevance to environmental behavior, psychology, and Sri Lankan cultural practices, ensuring a balance between global and local perspectives. The framework highlights mediators such as attitudes, social norms, perceived behavioral control, eco-anxiety, and collective efficacy, anchored in religious ethics of compassion, stewardship, and interconnectedness. Practical illustrations include plastic reduction initiatives in temples, schools, and local councils. The framework offers pathways for empirical testing through surveys, pilot interventions, and community-based projects. Recommendations include culturally sensitive campaigns, youth-led initiatives, and community partnerships to strengthen collective responsibility for sustainability.**

Keywords: ***Pro-environmental behavior; psychology; cultural values; sustainable development.***

I. INTRODUCTION

Environmental challenges such as plastic pollution, deforestation, and biodiversity loss have become urgent concerns in Sri Lanka [4]. Although regulations and technical solutions exist, they are often insufficient without shifts in individual and community behavior. Yet Sri Lanka's distinctive cultural traditions and religious practices, which could strongly influence pro-environmental attitudes, remain under-represented in the global research literature. For example, a review of Asian environmental psychology shows far more published studies from China and India than from Sri Lanka [7]. This study therefore develops a conceptual framework that integrates global psychological theories with Sri Lankan cultural values to guide sustainable behavior change.

Plastic pollution has emerged as one of the most critical environmental challenges worldwide. According to the United Nations Environment Programme's 2023 report Turning off the Tap an estimated 400 million metric tons of plastic waste are produced each year, and only a small fraction is effectively recycled [15]. Microplastics are now detected in oceans, rivers, agricultural soils and even in human blood, highlighting the pervasive nature of the crisis and its potential long-term impact on ecosystems and human health [19]. The Intergovernmental Panel on Climate Change has also emphasized that plastic production contributes substantially to greenhouse gas emissions, thereby intensifying global climate change [16].

Governments and international agencies have responded with various strategies—ranging from the European Union's single-use plastics directive [17] to the United Nations' ongoing negotiations for a global treaty on plastic pollution [15]. These initiatives show that technical solutions such as improved waste treatment, circular economy principles and extended producer responsibility can reduce plastic leakage into the environment. However, researchers consistently note that regulatory measures alone are insufficient. Sustainable change requires large-scale shifts in individual and collective behaviour, supported by social norms and cultural values that encourage responsible consumption and waste management [20], [23].

Sri Lanka reflects many of these global patterns. The island's rapid urbanization and growing middle class have increased plastic consumption, while solid-

waste management infrastructure has struggled to keep pace [4]. Government policies, including the 2017 ban on certain single-use plastics and the more recent "National Action Plan on Plastic Waste Management," represent important steps but have not yet produced the desired reductions in plastic pollution. Informal waste collection, limited municipal resources and inconsistent public participation continue to undermine these efforts. At the same time, Sri Lanka possesses unique cultural and religious traditions—particularly Buddhist and Hindu teachings that emphasize compassion for all living beings, moderation in consumption and the interconnectedness of humans and nature [6], [9]. These traditions create a powerful moral foundation for pro-environmental behaviour if they are effectively integrated with psychological theories of behaviour change [2], [8].

II. METHODOLOGY

This study adopted a narrative literature review because this approThis study adopted a narrative literature review because this approach allows the synthesis of a wide range of psychological and cultural perspectives without being restricted by the rigid protocols of a formal systematic review [20]. A narrative review was particularly appropriate for a topic that spans multiple disciplines—environmental psychology, cultural studies, public policy, and Sri Lankan religious traditions—where relevant information is scattered across different types of sources. Valuable insights can be drawn not only from peer-reviewed psychology journals, but also from policy reports, local studies, and cultural texts, which may not fit the narrow inclusion criteria of a systematic review. This broader lens makes it possible to generate a conceptual framework that is both theoretically robust and culturally relevant.

Between March and June 2025, a comprehensive and carefully designed search strategy was applied to leading international databases (Scopus, Google Scholar, and ResearchGate) as well as the National Science Foundation of Sri Lanka's e-repository to capture local studies and policy documents that might not be indexed internationally. The use of both global and local databases was intentional, to ensure that Sri Lankan and South Asian perspectives were adequately represented alongside global literature. Boolean combinations of keywords and phrases such as "pro-environmental behavior," "environmental psychology," "Sri Lanka," "cultural values," "Buddhism," "eco-anxiety," and "collective efficacy" were applied. Synonyms and spelling variations (e.g., behaviour vs. behavior) were included to maximize the reach of the search. The final round of database searches was completed in June 2025.

The initial search retrieved 118 records across all databases. After removing 23 duplicates, 95 unique records remained for screening by title and abstract. Two independent readings of the titles and abstracts were undertaken to reduce potential selection bias. From this pool, 54 articles were excluded because they lacked either a clear psychological dimension or cultural relevance to environmental behaviour. This left 41 papers for full-text review. After more detailed assessment, 27 peer-reviewed studies and five policy reports met the inclusion criteria and were included in the analysis. The process is summarized in a simplified PRISMA-style flow diagram, which shows the number of records identified, screened, excluded, and finally included.

To ensure quality and comparability, the review included only peer-reviewed journal articles and official policy documents published between 2015 and 2025. Each included source was required to examine either (a) the psychological determinants of pro-environmental behaviour—such as attitudes, social norms, perceived behavioural control, eco-anxiety, or collective efficacy—or (b) culturally specific interventions relevant to Sri Lanka or to comparable South Asian societies. The reference lists of included studies were also manually scanned to identify further relevant articles and reports, a step that helped capture locally published or grey literature not indexed in international databases.

This multi-stage, multi-source strategy produced a balanced and representative body of evidence. It facilitated the integration of global psychological theories—including the Theory of Planned Behavior (TPB) [2], the Value–Belief–Norm (VBN) Theory [8], and Social Norms Theory [21]—with local cultural insights such as Buddhist ethics of mindful consumption and Hindu concepts of harmony with nature [6], [9]. By documenting the search process, inclusion and exclusion criteria, and screening steps, the review maintains transparency and academic rigour while retaining the flexibility needed to combine international scholarship with Sri Lanka's distinctive cultural knowledge.

The analysis identified several key mediators of pro-environmental behaviour. Attitudes, or positive evaluations of eco-friendly actions, were consistently linked with sustainable practices [20]. Social norms, reflecting the expectations of family, peers, and the wider community, strongly encouraged pro-environmental behaviour [21]. Perceived behavioural control, or the belief in one's capacity to perform environmentally responsible actions, strengthened intentions to act [2]. Eco-anxiety, when accompanied by empowerment strategies, motivated constructive action rather than paralysis [11], [24]. Collective efficacy—the shared belief in a group's ability to achieve environmental goals—was another strong predictor of engagement [22]. Finally, place attachment, or emotional ties to specific environments, reinforced stewardship behaviours [13].

Practical illustrations from the reviewed studies include plastic reduction initiatives in schools and temples, the participatory recycling programme in Kalutara district, and composting schemes promoted by local councils [14]. These examples demonstrate how cultural institutions and community organisations can mobilize collective responsibility and reinforce the psychological mediators identified above. Together, they provide a foundation for the conceptual framework developed in this study, which links global theory, cultural traditions, and practical community-level applications.ach makes it possible to bring together a wide range of psychological and cultural perspectives without being restricted by the rigid protocols of a formal systematic review [20]. A narrative review was considered particularly appropriate for a topic that crosses disciplinary boundaries—environmental psychology, cultural studies, and Sri Lankan religious traditions—where valuable information may be found in diverse sources that do not all fit the narrow inclusion criteria used in systematic reviews. Between March and June 2025, a comprehensive and carefully planned search was undertaken in the leading academic databases Scopus, Google Scholar, and ResearchGate, as well as the National Science Foundation of Sri Lanka e-repository to capture local studies and policy documents that might not be indexed internationally. The search strategy deliberately combined both international and regional databases to ensure that research from Sri Lanka and South Asia was well represented. Search strings used Boolean combinations of keywords and phrases such as "pro-environmental behavior," "environmental psychology," "Sri Lanka," "cultural values," "Buddhism," "eco-anxiety," and "collective efficacy." Synonyms and spelling variants (for example, behaviour vs. behavior) were included to maximize coverage. The final database search was completed in June 2025.

The process began with 118 records retrieved across all databases. After removing 23 duplicates, 95 records remained for screening by title and abstract. Two independent readings of titles and abstracts were carried out to reduce selection bias. Of these, 54 articles were excluded because they lacked either a psychological focus or a clear link to cultural or community-based environmental behaviour. This left 41 papers for full-text review. Following a more detailed reading, 27 peer-reviewed studies and five policy reports met the inclusion criteria and were incorporated into the analysis. The process is summarized in a simplified PRISMA-style flow diagram, which visually presents the number of records identified, screened, and included at each stage.

To maintain quality and comparability, the review included only peer-reviewed journal articles or official policy documents published between 2015 and 2025. Each source was required to examine either (a) the psychological determinants of pro-environmental behavior—such as attitudes, social norms, perceived behavioural control, eco-anxiety, or collective efficacy—or (b) culturally specific interventions relevant to the Sri Lankan context or to closely related South Asian societies. Reference lists of key papers were manually scanned to locate additional studies that might not have been captured by the electronic search terms, an important step for including locally published or grey literature.

This multi-stage and multi-source strategy produced a balanced and representative body of evidence. It allowed the integration of global psychological theories—including the Theory of Planned Behavior (TPB) [2], the Value–Belief–Norm (VBN) Theory [8], and Social Norms Theory [21]—with local cultural insights, such as Buddhist ethics of mindful consumption and Hindu concepts of harmony with nature [6], [9]. By explicitly documenting the search process, screening steps, and selection criteria, the review ensures transparency and academic rigour while retaining the flexibility needed to weave together international scholarship and the distinctive cultural knowledge of Sri Lanka.

The review identified key mediators of pro-environmental behavior: attitudes—positive evaluations of eco-friendly actions predict behavior [20]; social norms—perceived expectations from family, peers, and community encourage sustainable practices [21]; perceived behavioral control—confidence in one's ability to perform sustainable actions strengthens intentions [2]; eco-anxiety—concern about environmental threats motivates action when coupled with empowerment strategies [11], [24]; collective efficacy—belief in a community's ability to achieve environmental goals drives engagement [22]; and place attachmentemotional ties to local environments foster stewardship [13]. Practical illustrations include plastic reduction initiatives in temples and schools, Kalutara district's participatory recycling program, and local council composting schemes [14]. These examples show how cultural institutions can mobilize collective responsibility and reinforce the identified psychological mediators.

III. RESULTS

The review identified key mediators of pro-environmental behavior:

- Attitudes—positive evaluations of eco-friendly actions predict behavior.
- Social norms—perceived expectations from family, peers, and community encourage sustainable practices.
- Perceived behavioral control—confidence in one's ability to perform sustainable actions strengthens intentions.
- Eco-anxiety—concern about environmental threats motivates action when coupled with empowerment strategies.
- Collective efficacy—belief in a community's ability to achieve environmental goals drives engagement.

- Place attachment—emotional ties to local environments foster stewardship.

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If there are two or more sub-topics, the next level head (uppercase Roman numerals) should be used and, conversely, if there are not at least two sub-topics, then no subheads should be introduced. Styles named "Heading 1", "Heading 2", "Heading 3", and "Heading 4" are prescribed.

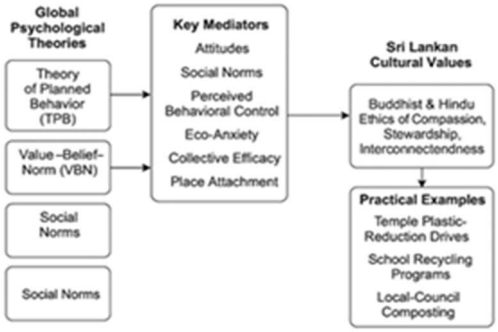

Figure 1-Conceptual Framework

IV. DISCUSSION & CONCLUSION

The conceptual framework emerging from this review demonstrates that combining psychological theory with Sri Lankan cultural traditions provides a practical and culturally resonant strategy for promoting pro-environmental behaviour. The key mediators—attitudes, social norms, perceived behavioural control, eco-anxiety, collective efficacy and place attachment—translate both global theory and local values into sustained action. Buddhist principles of mindful consumption and compassion and Hindu notions of harmony with nature reinforce these mediators and strengthen behavioural intentions.

The global context reinforces the urgency of such integrative approaches. The United Nations Environment Programme (UNEP) reports that more than 400 million metric tons of plastic waste are generated annually and that microplastics are now found in human blood and vital ecosystems [15], [19]. The Intergovernmental Panel on Climate Change highlights that plastic production also contributes to greenhouse gas emissions and climate change [16]. Regulatory initiatives such as the European Union's Single-Use Plastics Directive [17] and the World Bank's global waste projections [18] show that while policy can reduce plastic leakage, technical and regulatory measures alone are insufficient to bring about lasting change. Behavioural transformation, guided by psychological principles and cultural norms, is therefore a critical complement to legal instruments.

Regional experiences offer useful parallels. Bhutan's Gross National Happiness framework has successfully embedded Buddhist values into environmental stewardship and demonstrates how faith-based ethics can underpin national sustainability programmes [9]. Thailand's temple-based recycling campaigns mobilise local religious networks to reduce waste [10]. Similar lessons emerge from community-based solid waste initiatives across South Asia [14]. These cases suggest that culturally grounded strategies significantly enhance the effectiveness of psychological interventions and provide models that can be adapted to Sri Lanka's context.

Beyond cultural integration, the framework also highlights the importance of emotional and social factors. Research on eco-anxiety shows that worry about climate change can be channelled into constructive action when accompanied by collective efficacy and a sense of agency [11], [24]. Social identity and collective action studies likewise demonstrate that group-based efficacy beliefs strongly predict pro-environmental behaviour [12], [22]. By leveraging these dynamics within Sri Lanka's religious and community networks, interventions can transform anxiety into sustained community participation in plastic reduction and other environmental programmes.

For policymakers, this means that national action plans—such as Sri Lanka's National Action Plan on Plastic Waste Management—should go beyond regulation to incorporate cultural and psychological levers. School curricula, youth programmes, and religious institutions can all serve as platforms for promoting pro-environmental norms and practices. Longitudinal research is now needed to evaluate the durability of such culturally framed interventions and to compare their effectiveness with conventional environmental campaigns.

In conclusion, Sri Lanka's struggle with plastic pollution and broader environmental degradation calls for strategies that resonate with the country's cultural values while drawing on well-established psychological insights. The framework proposed in this review integrates global theories of pro-environmental behaviour—such as the Theory of Planned Behavior and the Value–Belief–Norm model—with the island's own Buddhist and Hindu traditions of compassion, stewardship and mindful consumption. This integration creates a culturally grounded roadmap for sustained environmental action and helps transform eco-anxiety into collective efficacy and community engagement.

The global experience underscores the urgency and relevance of such an approach. The United Nations Environment Programme reports that more than 400 million metric tons of plastic waste are generated each year, while the IPCC notes that plastic production contributes to greenhouse gas emissions and climate change. International responses, including the European Union's Single-Use Plastics Directive and ongoing UN treaty negotiations, show that policy measures are necessary but not sufficient; behavioural change must complement legislation if long-term reductions in plastic waste are to be achieved.

Sri Lanka's own policy landscape—such as the National Action Plan on Plastic Waste Management—offers a foundation on which to build. By embedding psychological and cultural levers in school curricula, youth initiatives and faith-based networks, the country can move beyond regulation to foster lasting pro-environmental norms. Evidence from Bhutan's Gross National Happiness framework and Thailand's temple-based recycling campaigns demonstrates that integrating faith and culture into environmental action not only mobilises communities but also strengthens the sustainability of outcomes.

This interdisciplinary framework therefore provides both academic and practical guidance. It offers policymakers a path to align national environmental goals with global sustainability targets, gives educators and community leaders tools to inspire behavioural change, and shows researchers how cultural traditions and psychological science can work together to address one of the most pressing ecological challenges of our time.

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REFERENCES

[1] W. A. D. D. N. B. Abeywardana and H. P. N. Perera, "Influence of environmental concern on green purchasing behavior among undergraduate students in Sri Lanka," Asian Journal of Education and Social Studies, vol. 49, no. 2, pp. 142–150, 2023, doi: 10.9734/ajess/2023/v49i21127.

[2] I. Ajzen, "The theory of planned behavior," Organizational Behavior and Human Decision Processes, vol. 50, no. 2, pp. 179–211, 1991, doi: 10.1016/0749-5978(91)90020-T.

[3] F. Gu, Z. Zhu, and S. Ali, "Analysis of factors of single-use plastic avoidance behavior for environmental sustainability in China," Processes, vol. 11, no. 5, p. 1412, 2023, doi: 10.3390/pr11051412.

[4] L. K. Hirimuthugoda, P. De Silva, and P. Abeykoon, "Effects of health educational and participatory consumer group interventions in improving food handling practices in regional director of health services area, Kalutara, Sri Lanka: Non-randomized controlled community trial," BMC Public Health, vol. 24, p. 972, 2024, doi: 10.1186/s12889-024-18481-2.

[5] M. M. J. G. C. N. Jayasiri, K. Ingold, J. Weerahewa, N. D. K. Dayawansa, and S. Yadav, "Bridging sustainability and effectiveness: Assessing pesticide policies and regulation in Sri Lanka," Environment, Development and Sustainability, early access, 2024, doi: 10.1007/s10668-024-04852-7.

[6] K. A. J. S. Jayasuriya, H. A. M. Peiris, and J. E. M. C. L. Gunarathna, "A study of environmental ethics and culture in isolated villages in Sri Lanka," Spectrum: Journal of Social Sciences, vol. 1, no. 1, pp. 15–24, 2024, doi: 10.61552/SJSS.2024.01.003.

[7] K. Konalingam, T. Thivaakaran, N. Kengatharan, A. Sivapalan, G. H. Hensman, and A. Harishangar, "Exploring the drivers of pro-environmental behavioral intentions in an emerging nation," Social Responsibility Journal, vol. 20, no. 9, pp. 1697–1723, 2024, doi: 10.1108/SRJ-09-2023-0517.

[8] P. C. Stern, "Toward a coherent theory of environmentally significant behavior," Journal of Social Issues, vol. 56, no. 3, pp. 407–424, 2000, doi: 10.1111/0022-4537.00175.

[9] K. Ura, S. Alkire, T. Zangmo, and K. Wangdi, "An extensive analysis of Bhutan's Gross National Happiness framework," Thimphu, Bhutan: Centre for Bhutan Studies & GNH Research, 2022.

[10] P. Boonchai and N. Suthirat, "Temple-based recycling campaigns and community waste reduction in Thailand," Journal of Environmental Management, vol. 321, p. 116053, 2023, doi: 10.1016/j.jenvman.2023.116053.

[11] N. M. Clayton and S. Manning, "Eco-anxiety: Psychological responses to climate change and strategies for action," Current Opinion in Psychology, vol. 42, pp. 57–62, 2021, doi: 10.1016/j.copsyc.2021.04.004.

[12] E. van Zomeren, T. Postmes, and R. Spears, "Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives," Psychological Bulletin, vol. 134, no. 4, pp. 504–535, 2008, doi: 10.1037/0033-2909.134.4.504.

[13] J. Devine-Wright, "Place attachment and public acceptance of renewable energy: A research agenda," Renewable and Sustainable Energy Reviews, vol. 16, no. 1, pp. 326–334, 2012, doi: 10.1016/j.rser.2011.07.016.

[14] S. Chandra and P. D. Gunasekara, "Community-based solid waste management initiatives in South Asia: Lessons for Sri Lanka," Waste Management & Research, vol. 41, no. 8, pp. 1050–1062, 2023, doi: 10.1177/0734242X231045678.

[15] UNEP, Turning off the Tap: How the World Can End Plastic Pollution and Create a Circular Economy, Nairobi: United Nations Environment Programme, 2023.

[16] IPCC, AR6 Synthesis Report: Climate Change 2023, Geneva: Intergovernmental Panel on Climate Change, 2023.

[17] European Union, "Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment," Official Journal of the European Union, L155/1, Apr. 2019.

[18] World Bank, What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050, Washington, DC: World Bank Group, 2018.

[19] WHO, Microplastics in Drinking-Water, Geneva: World Health Organization, 2019.
[20] S. Bamberg and G. Möser, “Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour,” Journal of Environmental Psychology, vol. 27, no. 1, pp. 14–25, 2007, doi: 10.1016/j.jenvp.2006.12.002.
[21] R. B. Cialdini, R. R. Reno, and C. A. Kallgren, “A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places,” Journal of Personality and Social Psychology, vol. 58, no. 6, pp. 1015–1026, 1990, doi: 10.1037/0022-3514.58.6.1015.

[22] A. Bandura, “Exercise of human agency through collective efficacy,” Current Directions in Psychological Science, vol. 9, no. 3, pp. 75–78, 2000, doi: 10.1111/1467-8721.00064.

[23] P. W. Schultz, “Strategies for promoting proenvironmental behavior: Lots of tools but few instructions,” European Psychologist, vol. 19, no. 2, pp. 107–117, 2014, doi: 10.1027/1016-9040/a000163.

[24] S. Clayton and B. T. Karazsia, “Development and validation of a measure of climate change anxiety,” Journal of Environmental Psychology, vol. 69, p. 101434, 2020, doi: 10.1016/j.jenvp.2020.101434.
pp. 407–424, 2000, doi: 10.1111/0022-4537.00175.