

ISSN:2584-055X (Print)
E-ISSN:3049-3218 (Online)



ST XAVIERS UNIVERSITY KOLKATA JOURNAL OF INTERDISCIPLINARY RESEARCH

Volume 3, Issue 1

2025

St. Xavier's University, Kolkata

Aims and Scope

St Xaviers University Kolkata Journal of Interdisciplinary Research is an annual peer-reviewed journal. It aims to provide a space for understanding the interdisciplinarity of domains, in order to gain a better understanding of society. Its objective is to encourage and publish research, analysis and issues that pertain to the society and the constant process of its evolution.

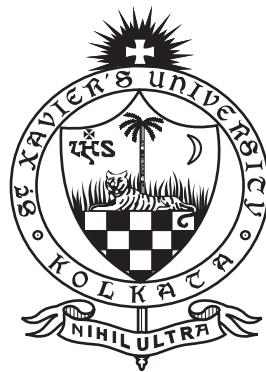
This issue of the journal spans various disciplines and has attempted to stay true to its interdisciplinary nature.

ISSN:2584-055X (Print)
E-ISSN:3049-3218 (Online)

ST XAVIERS UNIVERSITY KOLKATA
JOURNAL OF INTERDISCIPLINARY RESEARCH

VOLUME 3, ISSUE 1

2025



ST. XAVIER'S UNIVERSITY, KOLKATA

ST. XAVIER'S UNIVERSITY, KOLKATA

Published by:

St. Xavier's University, Kolkata

Action Area III, B, Newtown, Kolkata, West Bengal 700160.

<https://sxuk.edu.in/>

Printed by:

Paradise Printers

20A, Jogi Para Main Road, Kolkata 700006.

Email: paradisepainter1989@gmail.com

Editor:

Dr. Prayag Ray, Department of English, St. Xavier's University, Kolkata.

St Xaviers University Kolkata Journal of Interdisciplinary Research is published annually.

Print subscription amount for annual institutional subscription: Rs. 2000/-

ISSN:

2584-055X (Print)

E-ISSN:

3049-3218 (Online)

Copyright:

© 2025 by St. Xavier's University, Kolkata, India

All rights reserved.

Disclaimer:

Views expressed in *St Xaviers University Kolkata Journal of Interdisciplinary Research*, are those of the contributors. The Editor and St. Xavier's University, Kolkata (SXUK), do not necessarily subscribe to the views expressed by the contributors. The Editor and SXUK disclaim all liability and responsibility for any error of omission in this publication. In the case of binding defect, misprint, missing pages etc. the publisher's liability is limited to replacement of the defective copy.

All correspondence should be addressed to:

Editor,

St Xaviers University Kolkata Journal of Interdisciplinary Research

St. Xavier's University, Kolkata

Action Area III, B, Newtown, Kolkata, West Bengal 700160.

Email: editornihilultra@sxuk.edu.in

Tel. No: +913366249821

ST XAVIERS UNIVERSITY KOLKATA
JOURNAL OF INTERDISCIPLINARY RESEARCH
Volume 3, Issue 1, 2025

EDITORIAL BOARD

Chairman

Rev. Fr. Dr. John Felix Raj, SJ

Editor

Prayag Ray
Department of English

Associate Editor

Bidisha Kantha
Xavier Law School

Internal Board Members

Ashok Mohapatra, Department of English, St. Xavier's University, Kolkata
Mononita Kundu Das, Xavier Law School, St. Xavier's University, Kolkata
Susmita Halder, Department of Psychology, St. Xavier's University, Kolkata
Tuhin Utsab Paul, Department of Computer Science, St. Xavier's University, Kolkata
Manali Bhattacharya, Department of Mass Communication, St. Xavier's University, Kolkata
Sayantana Bandhu Majumder, Department of Economics, St. Xavier's University, Kolkata
Rupa Biswas, Department of Social Work, St. Xavier's University, Kolkata
Monalika Dey, Faculty of Commerce and Management, St. Xavier's University, Kolkata
Tanushree Biswas, Xavier Business School, St. Xavier's University, Kolkata
Tutun Mukherjee, Xavier Business School, St. Xavier's University, Kolkata
Stephen G., Assistant Librarian, St. Xavier's University, Kolkata
Malay Mitra, IT Coordinator, St. Xavier's University, Kolkata

External Board Members

Arka Chattopadhyay, Faculty of Humanities and Social Sciences, IIT Gandhinagar
Ranjanendra Narayan Nag, Department of Economics, St. Xavier's College, Kolkata
Asok Kumar Sarkar, Department of Social Work, Palli Samgathana Vibhaga, Visva-Bharati
Jadab Krishna Das, Department of Commerce, University of Calcutta
Sankarshan Basu, Indian Institute of Management, Bangalore

FROM THE DESK OF THE VICE-CHANCELLOR



Dear Readers,

I am delighted to welcome you to explore the latest edition (Volume 3, 2025) of our university's interdisciplinary academic journal. Our collective commitment to academic excellence and Jesuit ideals continues to inspire a transformative educational experience that not only pursues knowledge but also instils a profound responsibility towards our common home, the Earth.

The theme of this issue, "Environmental Issues and Sustainable Development," is both urgent and essential. In recent times, our world has witnessed a series of environmental crises—from rampant forest fires and devastating floods to the ongoing challenges of climate change. These events call for a critical reflection on our interaction with the natural world and highlight the need for immediate action towards sustainable living.

In response to these pressing issues, the Society of Jesus has been at the forefront of environmental conservation. Guided by the teachings of Pope Francis, particularly his encyclical *Laudato Si'*, we are reminded of our duty to protect the planet and to ensure justice for the poor and future generations. The Pope's message is clear: it is imperative that we seek not only dialogue but also practical solutions to the ecological crisis.

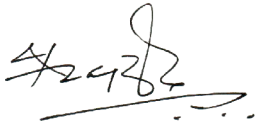
At St. Xavier's University, Kolkata, we are proud to be pioneers in adopting eco-friendly practices. Our campus is a testament to sustainable development, maintaining a green and plastic-free environment. Through innovative research and strategic collaborations, we strive to lead by example in the global struggle for environmental preservation. Our efforts are geared towards creating an educational ecosystem that respects and nurtures the integrity of Earth.

This issue of our journal offers a rich array of interdisciplinary articles that span various aspects of environmental challenges and sustainability. From exploring the role

of literature in advocating for the Earth, to highlighting the crucial work of indigenous communities in preserving mangrove forests, to practical advice for households on sustainable practices, there is much to learn and much to inspire action.

I encourage each of you to delve into these pages, to educate yourselves, and to be inspired to make a difference. As we move forward, let us carry with us a renewed commitment to our Jesuit mission, to “care for our common home,” and to each other.

With high hopes for our collective future, in the spirit of NIHIL ULTRA,

A handwritten signature in black ink, appearing to read 'John Felix Raj', with a horizontal line underneath.

Revd. Dr. Fr. John Felix Raj, S.J.
Vice-Chancellor

EDITORIAL

— Dr. Prayag Ray¹

“And thorough this distemperature we see
The seasons alter: hoary-headed frosts
Fall in the fresh lap of the crimson rose,
And on old Hiems’ thin and icy crown
An odorous chaplet of sweet summer buds
Is, as in mockery, set. The spring, the summer,
The childing autumn, angry winter, change
Their wonted liveries, and the mazèd world
By their increase now knows not which is which.
And this same progeny of evils comes
From our debate, from our dissension;
We are their parents and original.”

— William Shakespeare, *A Midsummer Night’s Dream*

Composing these lines at the end of the sixteenth century, William Shakespeare was not—prophetic though he is often taken to be—describing the contemporary climate crisis. Instead, he was likely thinking through the years 1594-1595, when, due to the climatic abnormalities of the “Little Ice Age” of the 14th to the 19th centuries, England saw harsh and unseasonable weather. Yet the lines, describing a distempered world of topsy-turvy seasons, do resonate with our own times—a world of extreme weather events: the hurricanes, heatwaves, floods, wildfires, and droughts that have become a staple in the news. In Shakespeare’s play, this unseasonable weather originates in discord between Titania, queen of the fairies and symbol of nature, and king Oberon, arguably a symbol of culture and authority. In this too, Shakespeare speaks to our times, where a rift between humankind and the order of nature has led to global warming and climate change. We are the “parents and original” of this “progeny of evils.” At the end of his play, Shakespeare imagines a reconciliation of the warring primal forces—renewed accord between queen and king—and so, in the face of climate change, must we. The United Nations’ 17 Sustainable Development Goals (SDGs), adopted in 2015, might be one step in this direction.

The theme of this volume of *SXUKJIR* is “Environmental Issues and Sustainable Development.” As a Jesuit university that seeks to contribute to solving the climate

¹Dr. Prayag Ray is an Assistant Professor at the Department of English, St. Xavier’s University, Kolkata, and the Editor of *SXUKJIR*. He can be contacted at editornihilultra@sxuk.edu.in.

crisis, not only by adopting clean and green practices on campus, but by encouraging research on environmental issues, we felt that such a theme was apt. An interdisciplinary journal is ideally suited to tackling the issue of climate change. The environmental crisis is a complex problem and requires appropriately complex solutions. A journal platforming research across disciplines and implementing diverse disciplinary perspectives provides the scope for innovative and effective solutions to tackle this global concern.

Further, as our Hon'ble Vice-Chancellor suggests in his note, the Jesuit order is particularly known for its commitment to ecological sustainability. This commitment is evident not only in the Jesuits' incorporation of environmental concerns into university curricula and research agenda but also in their collaborations with local communities to protect ecosystems and biodiversity. These actions reflect the broader mission of the Jesuits to foster a "culture of care" as part of their spiritual and social mandate, aligning with Pope Francis' call in his encyclical *Laudato Si'* for urgent action against environmental degradation and climate change. The third issue of our university's interdisciplinary academic journal seeks to make a humble contribution to this ethos of Jesuit environmentalism.

We received a wide range of articles for this volume and were able to publish ten works that approach environmental issues from diverse perspectives. The first two articles in the volume are invited contributions by experts in their respective fields. In their survey article envisioning a plastic-free future, Teesta Bhowmick and Arup Kumar Mitra discuss alternatives to plastic such as bioplastics, and inform readers about innovative new solutions such as the use of microbes for plastic degradation. The second invited article, by Anandarup Biswas, provides a literary perspective on the limits of the pastoral mode in contemporary Australian poetry. How, the paper asks, does the poet Eric Rolls appropriate and subvert the European pastoral tradition, to express the uneasiness of belonging in a settler colony? The third essay, by Arpan Mitra, explores a truly innovative literary work—*The Overstory*, by Richard Powers—that mimics the structure of a tree. Mitra outlines how this novel explores human relations through arboreal temporal, spatial, and ontological paradigms, echoing the posthumanist critique of anthropocentrism. In the next article, Shviti Tagore makes a case for how homemakers contribute to environmental sustainability through their daily actions. The author suggests that homemakers' activities, including household waste management, water conservation, and resource reuse closely align with several specific SDGs. In the next essay, P. Prateesh and M. A. Florence conduct a case study of Chethy Beach in Kerala, examining the effects of global warming on sea level changes, and evaluating the effectiveness of coastline afforestation using mangroves as organic fencing. The sixth article, by Sree Keerthi N., studies the Irular tribes of Tamil Nadu. Her paper evaluates the MS Swaminathan Research Foundation's efforts to establish a participatory approach to the Irular community's growth by involving them in the restoration of mangroves. We return to household waste management in the next paper, in which Rajni Bala

studies households in the NCR region to assess their knowledge of solid waste management practices. Using questionnaires and surveys, Bala asks if NCR householders are adequately aware of correct waste segregation and reuse practices. The eighth essay, by Ruskar Pathan, reads a mid-twentieth century Gujarati novel through an eco-critical lens. The author suggests that Pannalal Patel's *Manvi Ni Bhavai* [English title: *Endurance: A Droll Saga*] (1947), describing the ill effects of a severe drought, can serve as a cautionary tale about the dehumanizing effects of humankind's growing distance from nature. The next essay, by Debatri Bannerjee studies the degree to which three of the UN's Sustainable Development Goals, namely Goal 1, Goal 2, and Goal 3, have been implemented in 12 blocks of the North 24 Parganas region of West Bengal. She conducts primary field research and examines the extent to which different government schemes for the upliftment of this region have been successful. The tenth and final essay, by Kaberi Datta, takes lessons about the need for biodiversity conservation by studying the COVID-19 pandemic. She suggests that conserving the biodiversity of ecosystems will be a crucial tactic for averting future pandemics and promoting resilience as the globe struggles to recover from the damage caused by COVID-19. As is evident, our ten articles explore issues related to the environment and sustainable development in a nuanced and critically rigorous manner. By perusing these articles we hope readers will obtain a deeper insight into environmental issues that are pressing concerns in the contemporary world.

A word about our editorial policies will give readers a sense of the quality of the work published in this volume, and make it easier for them to engage with these essays. All our articles were checked for plagiarism and AI writing, and were found to adhere to the similarity limits and originality guidelines set out in our editorial policy. Following best practices in scholarly journals, our invited articles were internally reviewed by our Editorial Board (EB), and all other articles went through a stringent double-blind peer-review process. The articles revised on the basis of peer-reviewer feedback were then examined once more and found to be satisfactory. The citation style followed by *SXUKJIR* is the Author-Date or Harvard style of referencing, which is widely used across disciplines. We have chosen the Author-Date style because of its flexibility and applicability to interdisciplinary research. Our minor modifications to the Author-Date style, and special clarifications, are set out in our instructions to authors, which are uploaded on our website (www.sxukjir.sxuk.edu.in/). The articles are prefaced by abstracts of approximately 250 words' length, formatted in italics, to distinguish them from the main body of the article. Author biographies are restricted to a single line of description, along with a contact email ID. We have kept the biographies brief since we believe that the quality of the research should speak louder than professional affiliations or rank. Bibliographies are demarcated with the heading "References," and contain works cited by the author as well other essential secondary works that informed the author's writing. When reading the articles, you will find that headings (Level 1) are clearly demarcated in centre-aligned, bold-fonted titles, sub-headings

(Level 2) are italicised, and sub-sub-headings (Level 3) [if present at all] are underlined. As per our editorial policy, elaborate footnotes have been avoided, with footnotes used sparingly for short author bios and essential information of an additional nature.

Many hands helped to nurture and shape this volume of interdisciplinary nature, and I would be remiss in my duties not to acknowledge their contributions. *SXUKJIR* would not have been possible without the vision and the patronage of the Hon'ble Vice-Chancellor of St. Xavier's University, Kolkata, Rev. Dr. Fr. John Felix Raj, SJ. Our respected Registrar, Prof. Ashis Mitra, is the publisher of the journal, and has guided us through every stage of the process—his attention to detail is second to none. Staff at the Vice-Chancellor's Office and the Registrar's Office have patiently helped us with administrative work and record-keeping. Mr. Nilesh Patel at Paradise Printers has been an ever-available point of contact, and has seen the manuscript through from its digital format to the tangible copy you now hold. The IT Office, and Mr. Pawan Dalmia's team at Orbit Tech services has helped us to set up and run the journal's website. To members of our Editorial Board, comprising of external as well as internal members, I owe a debt of thanks. While all Editorial Board members contributed to policy-formulation, administrative decision making, and the selection of the articles, I would like to specifically name Dr. Bidisha Kantha, the Associate Editor, whose tireless efforts in editing and formatting this volume are greatly appreciated. Dr. Tuhin Utsab Paul, Dean of Science at SXUK, and Mr. Ashish Law, our Legal and Compliance Officer must be specially thanked for their help with our ISSN application. I thank Dr. Stephen G., our Librarian, who has helped us prepare our subscription form as well as Mr. Sudipto Ghosh, who has looked into matters related to distribution of the journal. Special thanks are due to Ms. Debatri Bannerjee, teacher of Environmental Science at SXUK for her help in preparing this volume. Finally, I must thank our authors for their excellent work, readiness to co-operate, and willingness to improve their work continuously.

The Editorial Board sincerely hopes that contributions to our journal continue to be strong, despite its relative youth. The Aims and Scope of *SXUKJIR* are printed in our front-matter, and we will continue to issue Call For Papers on an annual basis. Our CFPs will be readily viewable on the university website (<https://sxuk.edu.in/>) and will be shared on our social media pages. Subscription to our journal has been made easy—potential subscribers may consult the subscription form printed with the endmatter. We hope that the articles contained in these pages are enlightening as well as inspiring, and imbue the reader with the spirit of our cherished institution—Nihil Ultra: Nothing Beyond.



The Editor
Dr. Prayag Ray

Abstracts Booklet

Contents

A Vision for Tomorrow: Envisioning a World without Plastic Ms. Teesta Bhowmick & Dr. Arup Kumar Mitra.....	Page 2
The Limits of the Pastoral and the Unease of Belonging: A Reading of Eric Rolls' Poems Dr. Anandarup Biswas	Page 3
Narrative Form as Ecological Consciousness in Richard Powers' <i>The Overstory</i> Mr. Arpan Mitra	Page 4
Silent Stewards: Housewives' Role in Advancing SDGs through Everyday Household Practices Ms. Shviti Tagore	Page 5
Global Warming and Local Solutions: A Study of Chethy Beach of Alappuzha Dr. P. Pratheesh & Dr. M. A. Florence	Page 6
Participatory Approach for Development: A Case Study on the Restoration of Mangroves and the Growth of the Irular Community in Pichavaram, Cuddalore, Tamil Nadu Ms. Sree Keerthi. N	Page 7
Awareness and Practices of Household Solid Waste Management: A Study of NCR Community Residents Dr. Rajni Bala	Page 8
Manvi Bhavai: Misery of Humanity in Absence of Nature's Assistance Ms. Ruskar Pathan	Page 9
Achieving Sustainable Developmental Goals in the Rural Society of North 24 Paraganas: A Pilot Study Ms. Debatri Banerjee	Page 10
Biodiversity Conservation and COVID-19: Lessons and Opportunities Dr. Kaberi Datta	Page 11

A Vision for Tomorrow: Envisioning a World without Plastic

— Ms. Teesta Bhowmick¹ &

— Dr. Arup Kumar Mitra²

Abstract

Plastic pollution is one of the major emerging global concerns of the twenty-first century, posing a tremendous threat to the ecosystem, wildlife, and health of humans. This paper aims to explore the various kinds of plastic pollution, caused by macroplastics, microplastics and nanoplastics, and the adverse detrimental effects they impose on terrestrial and marine environments. Macroplastics include discarded bottles, fishing nets, polythene bags, and the like, which contribute to marine and land debris while microplastics and nanoplastics infiltrate the food chain and pollute drinking water as well. It focuses on the major sources leading to plastic pollution which include detrimental industrial practices, improper waste management, overuse of single-use plastics and the challenges faced by nations to mitigate plastic pollution. The major obstacles in eliminating plastic pollution include their high durability, low bioavailability and their slow degradation which has caused a worldwide concern. Current efforts to reduce plastic pollution have been addressed which include exploring sustainable alternatives such as using bioplastics which are renewable and degradable in nature or harbouring biological methods of plastic degradation such as harbouring plastic-degrading microbes which do so by secretion of enzymes. Other measures include developing plastic recycling techniques, spreading public awareness, and establishing an integrated system for waste management. A multidisciplinary approach is required to face the complexities of plastic pollution and come up with practical solutions to mitigate its environmental footprint.

Keywords: Plastic pollution, macroplastics, microplastics, nanoplastics, single-use plastics, global concern, bioplastic, plastic-degrading microbes, multidisciplinary approach

¹ Ms. Teesta Bhowmick is a postgraduate student in the Department of Microbiology, St. Xavier's College (Autonomous), Kolkata, West Bengal, and can be contacted at bhowmickteesta@gmail.com.

² Dr. Arup Kumar Mitra is an Associate Professor at the Department of Microbiology, St. Xavier's College (Autonomous), Kolkata, and can be contacted at drakmitra01@sxccal.edu.

The Limits of the Pastoral and the Unease of Belonging: A Reading of Eric Rolls' Poems

— Dr. Anandarup Biswas³

Abstract

The pastoral has been a source of epistemological anxiety and challenge for ecocriticism. It has been subject to many reappropriations, in the hands of poets and critics alike. From the anti-pastoral to neo-pastoral, the counter-pastoral to the post-pastoral, it has been renewed as a relevant literary convention in the English Renaissance, by the Romantics and now in the hands of the environmentally aware critic and writer. Paradoxically, its early sense of escape and release lingers, sometimes as late as in the twentieth century, while newer, ecologically nuanced implications continue to be attached to it. This paper examines how the anti-pastoral emerges as a term of critical utility for the poet and the critic alike who see it as an important element in the settler colonial imaginary. I look into the poems of Eric Rolls (1923-2007), an Australian poet and historian of the environment who wrote outside the academia but made significant contributions in the field of Australian environmental history, through the counter-pastoral lens. I argue that the poet appropriates or subverts the pastoral to represent a sense of belonging fraught with anxiety, guilt and a shared history of violent dispossession and genocide. How, the paper asks, does a poet, in full knowledge of the settler colonial past, recast the artificialities and ironies of the pastoral tradition to express the uneasiness of belonging to a settler nation? Concurrently, I examine the efficacy of the terms "anti-pastoral" or "inverted pastoral" used by the poet-activist John Kinsella in a specifically Australian context.

Keywords: Pastoral, Eric Rolls, nature, anti-pastoral, Kinsella, settler-colonial

³ Dr. Anadarup Biswas is an Associate Professor at the Department of English, Shibpur Dinobundhoo Institution (College), and can be contacted at biswas.anandarup@gmail.com.

Narrative Form as Ecological Consciousness in Richard Powers' *The Overstory*

— Mr. Arpan Mitra⁴

Abstract

Richard Powers' novel The Overstory is a groundbreaking literary work that challenges anthropocentric perspectives through innovative narrative structures, linguistic strategies, and philosophical explorations of consciousness, communication, and temporality. The study reveals how Powers employs a unique four-part structural framework mimicking a tree's biological anatomy—"Roots," "Trunk," "Crown," and "Seeds"—to challenge linear storytelling and demonstrate the interconnectedness of ecological systems. By presenting trees as sentient, communicative beings, the novel dismantles hierarchical assumptions about intelligence and perception, aligning with posthumanist and new materialist philosophical approaches. Linguistically, Powers transforms language from a static communicative tool to a dynamic, living system. The text explores innovative linguistic strategies, including synesthetic sensory blending, etymological investigations, and non-anthropocentric narration. These techniques expand the boundaries of communication beyond human-centric frameworks, presenting words as active, interconnected entities with rich historical contexts. The novel's radical reconceptualization of time emerges as a critical philosophical intervention, challenging linear time perception by presenting temporal experience from a tree's perspective—spanning geological periods rather than human lifespans. Powers' work transcends traditional literary boundaries, offering a profound philosophical critique of anthropocentrism and encouraging readers to reimagine their place within intricate ecological networks, promoting a more humble, interconnected understanding of consciousness and environmental relationships.

Keywords: Ecological consciousness, linguistic materiality, temporality, posthumanism, narrative structure.

⁴ Mr. Arpan Mitra is a doctoral scholar at the Department of English, St. Xavier's University, Kolkata, and can be contacted at arpan.mitra2020@gmail.com.

Silent Stewards: Housewives' Role in Advancing SDGs through Everyday Household Practices

— Ms. Shviti Tagore⁵

Abstract

Historically, homemakers have played a crucial role in fostering sustainability within their households and communities. Through activities such as waste management, energy conservation, water preservation, and resource reuse, housewives consistently and intuitively contribute to economic and environmental sustainability. These actions align closely with several specific SDGs, including clean water and sanitation (SDG 6), affordable and clean energy (SDG 7), and responsible consumption and production (SDG 12). This paper explores the vital yet often underappreciated role of housewives in advancing the Sustainable Development Goals (SDGs) through their everyday practices and responsibilities. In addition to examining the contributions of housewives to sustainable development, we critically analyse the numerous challenges they face in promoting sustainable lifestyles. Furthermore, the economic sustainability that housewives strive for is often constrained by financial limitations and the undervaluation of their labour, which is rarely compensated or acknowledged within the formal economy. The research is conducted through a mixed method approach, combining primary and secondary data for comprehensive analysis. Primary data includes un-structured interviews which utilise both qualitative and quantitative techniques. It is observed that by providing greater support, resources, and education, society can enhance the capacity of housewives to contribute more effectively to the SDGs. Additionally, valuing their contributions can lead to more inclusive and equitable policies that would play a critical role in achieving global sustainability goals. The paper concludes by proposing pragmatic solutions to empower housewives in their role as sustainability champions.

Keywords: Sustainable Development Goals, Economic sustainability, Housewives, Women empowerment.

⁵ Ms. Shviti Tagore is a Sociologist and is currently conducting independent research in the field of gender, sexuality and urban sociology. She can be contacted at shviti.tagorer@gmail.com. ORCID: 0009- 0000-4686-876X.

Global Warming and Local Solutions: A Study of Chethy Beach of Alappuzha

— Dr. P. Pratheesh⁶ &
— Dr. M. A. Florence⁷

Abstract

*Climate change is causing severe weather events, disasters, habitat destruction, and livelihood impacts on Earth. From 1880 onwards, the global sea levels have risen 8-9 inches annually due to global warming, leading to glacier melting and ocean warming (Change, 2023). By the end of the century, sea levels are expected to rise at least one foot. To combat climate change, local solutions include reducing carbon emissions, adjusting heat absorption profiles, and planting saplings to maintain cooler environments. Alappuzha, Kerala's only district free from mountain calamities, faces recurring soil erosion and rising sea levels due to climate change, and 95% of its 82 km coastline is under threat (Jennath, 2024). Chethy beach in Alappuzha is preparing for land slide threats with local fences and the planting of *Casuarina Equisetifolia* saplings, while coastal mangroves prepare for tsunami and other marine crisis situations. The study evaluates global warming's local effects on sea level changes and soil erosion, assessing the importance of coast-line afforestation using mangroves as organic fencing. Results show mangrove and *Casuarina Equisetifolia* fencing effectively manages rough sea, landslides, and soil erosion and was even effective during the 2004 tsunami and subsequent Ockhi cyclone event.*

Keywords: Global Warming, climate change, soil erosion, sea level changes, organic fencing, coastline

⁶ Dr. Pratheesh, P is an Assistant Professor in the Department of History at St. Michael's College, Cherthala (Alappuzha), Kerala and can be contacted at drpratheeshraghav@gmail.com.

⁷ Dr. Florence, M.A. is an Associate Professor in the Department of Economics at St. Michael's College, Cherthala (Alappuzha), Kerala and can be contacted at florencejeeson1212@gmail.com.

Participatory Approach for Development : A Case Study on the Restoration of Mangroves and the Growth of the Irular Community in Pichavaram, Cuddalore, Tamil Nadu

— Ms. Sree Keerthi. N⁸

Abstract

The study intends to investigate the developments in the socio-economic features of the Irular tribes living in Pichavaram, a village near Chidambaram in the Cuddalore District of Tamil Nadu. According to the 2011 population census, Pichavaram has a population 3,463. The study identifies and analyses the components of MS Swaminathan Research Foundation's (MSSRF) participatory strategy towards development of the Irulas through a Joint Mangrove Management Programme. To further comprehend the community's growth and participation in the restoration of mangroves, a qualitative study was conducted. The paper is the result of an in-depth interview and overt observational research conducted in Pichavaram, MGR Nagar, in 2022. Results of the study clearly indicate betterment in the social and economic status of the tribal population after the intervention of MSSRF. The implementation of the Joint Mangrove Management scheme has contributed to the successful restoration of the mangroves and has also enhanced security, employment, education, and the likes, among the tribal community.

Keywords: Irular, Pichavaram, development, participatory approach, mangroves, restoration.

⁸ Ms. Sree Keerthi N. is an Assistant Professor in the Department of Communication and Media Studies, M. O. P. Vaishnav College for Women (Autonomous), Chennai, and can be contacted at keerthinithil18@gmail.com.

Awareness and Practices of Household Solid Waste Management: A Study of NCR Community Residents

— Dr. Rajni Bala⁹

Abstract

Solid waste management poses significant environmental challenges, particularly in densely populated and urbanized regions such as the National Capital Region (NCR). This study examines the awareness and practices of household solid waste management, with a specific focus on female household members. A survey was conducted among 110 female participants using a structured questionnaire. The findings reveal a high level of awareness regarding the importance of waste management; however, gaps were identified in knowledge about specific disposal methods, the role of local authorities, electronic waste management, and relevant legislation. The study also highlights an encouraging trend in waste segregation and reuse practices. The results aim to provide valuable insights to policymakers for developing more effective strategies to address the growing challenges of solid waste management in the NCR.

Keywords: solid waste, solid waste management, NCR region

⁹ Dr. Rajni Bala is an Assistant Professor at Rama Devi Kanya Mahavidyalaya in Noida, Uttar Pradesh, and can be contacted at drrajni2016@gmail.com.

Manvi Bhavai: Misery of Humanity in Absence of Nature's Assistance

—Ms. Ruksar Pathan¹⁰

Abstract

In the twenty-first century, one of the biggest global concerns is the environmental crisis. At such a time, ecocriticism emerges as a literary-theoretical framework with immense value. It is a way of reading literary texts that eschews anthropocentrism and foregrounds the interrelations between humans and other living organisms depicted in the text, reflecting on the shared space in which they live. After briefly discussing what ecocriticism is and how it draws attention to the importance of harmony and coexistence between humans and other organisms, this paper will examine how such a relationship is reflected and exemplified in Pannalal Patel's Gujarati novel Manvi Ni Bhavai [English title: Endurance: A Droll Saga] (1947). The novel's backdrop is the infamous famine of 1899-1900 and how it affected the livelihood of rural people highly dependent on natural resources.

Keywords: Ecocriticism, nature, anthropocentrism, crisis, literature

¹⁰ Ms. Ruksar Pathan is a doctoral scholar at The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, and can be contacted at ruksar9033@gmail.com.

Achieving Sustainable Developmental Goals in the Rural Society of North 24 Parganas: A Pilot Study

—Ms. Debatri Banerjee¹¹

Abstract

This study elucidates the status of three Sustainable Development Goals, namely Goal 1, Goal 2, and Goal 3 in 12 blocks of the North 24 Parganas. The rural society is often deprived of modern amenities and thus is unable to sustain a meaningful life. Utmost care has been taken by the Government to enhance the lifestyle of the people by providing proper aids and grants. Various NGOs and self-help groups also help the people and make them more aware of these schemes and elevate their living standards. This scientific approach has been undertaken to understand the status of the various Government schemes and their impacts on the rural society. The analysis highlights that although progress has been made with respect to the eradication of poverty, nonetheless, the area lags behind in providing proper healthcare facilities and immunizing the people. Food insecurity is still on the rise, and a large number of people still don't have access to the proper nutritional food. The agricultural sector is still lacking the potential for sufficient crop growth. This paper will shed some light on the existing government schemes as well as the challenges faced there.

Keywords: poverty, food insecurity, government schemes, rural areas, North 24 Parganas

¹¹ Ms. Debatri Banerjee is a doctoral candidate at the Department of Oceanography, Techno India University, West Bengal, and a contractual faculty of Environmental Science at St. Xavier's University, Kolkata, and can be reached at bdebatri91@gmail.com.

Biodiversity Conservation and COVID-19: Lessons and Opportunities

—Dr. Kaberi Datta¹²

Abstract

The COVID-19 pandemic has presented economies, society, and health with previously unheard-of difficulties. Although the pandemic was essentially a public health emergency, it brought to light important links between ecosystem health, biodiversity, and human activity. Biodiversity is the variety of life on Earth which encompasses the diversity of species, genes, and ecosystems. From an economic perspective, healthy ecosystems, which reflect a resilient and thriving biodiversity, contribute to agriculture, fisheries, and tourism. Ecological and man-made imbalances, on the other hand, lead to significant financial and societal costs, as seen in disasters like floods, crop failures and epidemics like Ebola and SARS (Severe Acute Respiratory Syndrome) to name a few. Biodiversity loss has been implicated as a major cause for the increased human-wildlife contact and spillover resulting in zoonotic disease incidences. Conserving biodiversity vis-à-vis ecosystems, therefore, becomes a crucial tactic for averting future pandemics and promoting resilience as the globe struggles to recover from the damage. The lessons in biodiversity loss and degradation on one hand and opportunities of recovery on the other hand that the pandemic has provided has been briefly explored in the present review. It has become increasingly evident that prioritising sustainability practices that conserve biodiversity is essential for the future survival of human civilization.

Keywords: biodiversity, conservation, Covid-19, lessons, opportunities

¹² Dr. Kaberi Datta is an Assistant Professor in the Department of Zoology, at Sarojini Naidu College for Women, Kolkata, and can be reached at kaberidatta@snewgs.ac.in.