

PREFACE TO THE EDITION

It is with great pleasure and a profound sense of responsibility that we present the inaugural issue of the **Eduschool Journal of Environmental Research Studies (EJERS)**. At a time when environmental challenges are increasingly shaping global policy, scientific inquiry, and societal priorities, this journal seeks to provide a scholarly platform for advancing knowledge, fostering interdisciplinary dialogue, and promoting evidence-based solutions for a sustainable future.

The first issue of EJERS brings together a collection of research articles that illuminate critical dimensions of contemporary environmental change. Collectively, these contributions underscore the interconnectedness of Earth's climate systems, ecosystems, and human activities while highlighting the urgent need for informed environmental stewardship.

The opening article examines the *Atlantic Meridional Overturning Circulation (AMOC) and the growing risk of climate tipping points* associated with its weakening. By exploring future projections and collapse thresholds, the study offers important insights into the far-reaching consequences that disruptions in large-scale ocean circulation may have on global climate stability, regional weather patterns, and sea-level dynamics.

Addressing the challenge of climate mitigation within rapidly expanding urban environments, the second contribution evaluates the *carbon sequestration potential of urban green infrastructure*. Through a comprehensive lifecycle assessment across tropical megacities, the study demonstrates how carefully planned urban ecosystems can contribute meaningfully to carbon management while enhancing environmental resilience.

The third article focuses on the increasingly significant issue of *permafrost thaw and methane emissions*. By assessing the carbon feedbacks associated with Arctic warming, the study highlights the potential for substantial greenhouse gas releases from thawing permafrost and emphasizes the implications for global carbon budgets and international climate targets.

Extending the discussion of natural climate solutions, the fourth contribution investigates *blue carbon storage in mangrove–seagrass ecotones*. By quantifying carbon stocks within these transitional coastal habitats, the research reveals an often-overlooked carbon reservoir and reinforces the importance of conserving coastal ecosystems as part of broader climate mitigation strategies.

The issue concludes with an analysis of *land-use change and carbon emissions in Southeast Asia*, a region that remains one of the world's most dynamic environmental frontiers. Through its examination of deforestation trends, policy interventions, and emission trajectories, the study highlights both the progress achieved and the challenges that remain in balancing economic development with environmental sustainability.

Taken together, the articles in this inaugural issue reflect the multidisciplinary character of environmental research and demonstrate the value of integrating climate science, ecosystem studies, geospatial analysis, and policy evaluation. They remind us that environmental challenges transcend geographical and disciplinary boundaries and require collaborative approaches grounded in rigorous scientific evidence.

We extend our sincere appreciation to the authors for their valuable contributions, the reviewers for their thoughtful evaluations, and the editorial team for their dedication in bringing this first issue to fruition. We also thank our readers and the broader academic community for their support and engagement.

As EJERS begins its journey, we remain committed to promoting high-quality environmental scholarship that informs policy, inspires innovation, and contributes to the global pursuit of ecological sustainability and climate resilience. We hope that this inaugural issue serves as both a meaningful contribution to environmental discourse and a foundation for future research endeavors.

Dr. K. Madhusudhanan
Chief editor

CONTENTS

SL. NO	TITLE	AUTHOR	PAGE NO
1	Atlantic Overturning Circulation And Climate Tipping Points	Dr. Jeeva Chacko	1-6
2	Carbon Sequestration Potential of Urban Green Infrastructure	Anjaly Jose	7-11
3	Permafrost Thaw and Methane Emissions Under Warming	Nishi Ann	12-16
4	Blue Carbon Storage in Mangrove-Seagrass Ecotones	Vidya N	17-21
5	Land-Use Change and Carbon Emissions in Southeast Asia	Laveena D Mello	22-27