International Journal of Recent Advances in Multidisciplinary Topics
Volume 7, Issue 7, July 2026
www.ijramt.com | E-ISSN: 2582-7839 | RESAIM Publishing | www.resaim.com

Narrating Nature's Margins: Political Ecology and Literary Responses to Climate Vulnerability and Sustainability

Biswanath Kundu*
Retired Accounts Official, Indian Railways, India

***Abstract*: The earth needs be smiling with mirth along with the flora and fauna. Life's seamless flow depends entirely on our commitment to maintaining the harmony of our ecosystem. The roadblocks to true ecological balance may be explored through in-depth study of the theme 'from vulnerability to sustainable futures'. The study aims at bridging the gap between biological conservation and human-centric political ecology. Environmental issues and changes are deeply related to power dynamics, economic structures and historical legacies like colonialism. Climate crisis does not affect equally to all, rather it depends on the extent of exposure, sensitivity and a lack of adaptive capacity. The risk identification for the sustainable development of our entire ecosystem is not only derived from this disproportionate impact; it is also no less relatable to the Anthropocene context, i.e., our current geological age where human activity is the dominant influence on climate and environment. The transformation of the Nature is a slow process. In order to achieve social and environmental justice, timely action is needed much to ensure fairer access of all to the available resources as well as the empowerment of the marginalized communities to it. Moreover, to check people from doing any environmentally damaging practice watch on keeping a vigil on political ecology is also the crying need of the time. The political and socio-economic realities of our environment have great impact on the sustainable growth for future generation. Emphasizing climate fiction (CLI-FI), the study highlights the power of literary voices that weave hard scientific data with profound emotional truth, bringing the stark reality of the climate crisis into sharp focus.**

***Keywords*: Pristine Ecosystem, Climate crisis, Resource depletion, Environmental justice, Sustainable development, Climate fiction.**

1. Introduction

The environmental scenario with healthy biodiversity of the world today is markedly changed from what it used to be only a few decades ago. Blatant disregard to the practice of honoring the rule of interconnectedness of environment and humanity has not only marred the prospect of sustainable development but also put a serious question about the futurity of the human beings. The earth looks now fractured multifariously followed by foolish wounds inflicted on it by human ignorance and arrogance. Sustainable development of the future with smiling environment faces a challenge and is apprehended to attach an irrevocable blow for its growing fragility. Onslaught on the pristine ecology has already caused suffocation to civilized existence with pure air and natural resources. It's time now to arrest this environmental degradation through prudent addressing of political ecology so that earth smiles in mirth. And when the earth starts smiling i.e., it becomes vibrant, bio diverse, untainted, and structurally sound, the humanity too starts smiling with benefits like pollution free environment and ever green good health. In order to achieve social and environmental justice, timely action is needed much to ensure fairer access of all to the available resources as well as the empowerment of the marginalized communities to it. Moreover, to check people from doing any environmentally damaging practice watch on keeping a vigil on political ecology is also the crying need of the time. The political and socio-economic realities of our environment have great impact on the sustainable growth for future generation. Earth's narratives remind us that nature is not meant for endless consumption; it calls for restraint, repair, reciprocity, and a deep reverence for the living world. Emphasizing climate fiction (CLI-FI), the study highlights the power of literary voices that weave hard scientific data with profound emotional truth, bringing the stark reality of the climate crisis into sharp focus.

2. The Tapestry of Environmental Blunders

Environmental crisis precipitates out of various isolated acts like deforestation, industrial pollution, poor waste management and policy loopholes. The pristine ecology and the ecosystems operating in a natural, uncorrupted dynamic equilibrium with biodiversity have, time and again, suffered from foolish human interference, paving the way for environmental degradation that is difficult to restore. It is interesting to note that in a pristine ecology, there exists no concept of 'waste'. Here the byproduct of one organism is the lifeblood of another. The cyclic movement of bio-organism is really a picturesque one. Dead organic matter feeds the soil, the soil nourishes plants, the plants sustain herbivores, and herbivores feed apex predators. But this tapestry of perfect balance gets vitiated by human ignorance as well as arrogance when Nature is treated either as a bottomless resource pit or infinite trash bin. The stark reality

*Corresponding author: bpkundu63@gmail.com

of Earth's natural balance getting fractured by human mismanagement is captured well in eco-poetry and climate fiction. Through these works, poets and litterateurs hold up a mirror, forcing society to confront the consequences of its blunders. The ecological vitiation happens because human engineering fails to grasp the interconnectedness of natural systems. Bringing into non-native species in a pristine environment in the name of pest control and heavy use of chemical fertilizers disrupts microbiome of the soil. And this blunder affects equally the marine life when effluents run off to the ocean. Monoculture forestry and agriculture strips the soil of nutrients, and leaves the landscape incredibly vulnerable to pests and wildfire. This is again another instance of environmental blunder or ecological vitiation. Moreover, to reverse this vitiation what is needed much is to change our mindset from reckless exploitation of pristine nature to self-healing restoration. To analyze the root causes of this degradation, prominent global scientific bodies, such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC), have established definitive analytical frameworks. These frameworks serve to elevate global awareness regarding critical systemic risks—specifically resource depletion, ecosystem destruction, and pollution—all of which are driven by interconnected anthropogenic activities. In this regard an excerpt from 12th session of The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Summary report, 2-9 February, 2026 may be seen from the following:

Every year brings new dire warnings of the number of species threatened with extinction: the world is losing biodiversity¾the variety of all life on earth¾at an alarming rate. In addition to its intrinsic value, biodiversity is essential for ecosystems to function and sustain human well-being. In recognition of the need to address this challenge, governments have engaged in coordinated action through various multilateral environmental agreements, including the Convention on Biological Diversity, whose parties adopted the landmark Global Biodiversity Framework that aims to halt and reverse biodiversity loss by 2030. (IPBES 12-Summary)

3. The Sustainability Transition

The sustainability transition or the profound societal changes needed to address global sustainability challenges, such as climate change, biodiversity loss and resource scarcity is complex, long-term processes. These involve multiple actors and operate across local, national and global scales. The salient steps required to ensure this transition from vulnerability to sustainability are summarized below,

1. *Energy Decarbonization:* The need of the hours is to shift from fossil fuels to renewable energy sources like solar, wind and geothermal energy to beat climate change.
2. *Circular Resource Management:* To welcome the shift from linear economic model to circular one by adopting a "reduce, reuse, and recycle" model for daily consumption.
3. *Sustainable Agriculture:* To **s**hift from traditional harvesting to regenerative agriculture to restore soil's natural microbiome.
4. *Ecosystem Restoration:* The need of the time is to protect biodiversity with rewilding of natural habitats for sustainability of our future with resilient Nature.
5. *Sustainable Urban Design:* The need of the time is to build resilient, eco-friendly communities focused on green infrastructure, water conservation, and public transportation.

Sustainability isn't however, a static finish line where we stop using resources entirely. It's a dynamic balance where our rate of resource consumption and waste generation stays strictly below the earth's natural capacity to regenerate and absorb them. The definition of sustainable development with its current understanding may be perused from the following:

It was on 27 April 1987 that the World Commission on Environment and Development started to use "sustainable development" in its current understanding. The most popular version of the definition of sustainable development is the one found in the report of the Brundtland Commission, as the World Commission on Environment and Development has come to be most popularly known. For the Brundtland Commission, sustainable development is a development which meets the needs of current generations without compromising the ability of future generations to meet their own needs. (Inogwabini, Ecology and Sustainable Development, p/2)

Further, besides environmental decline, human-caused climate change severely impacts regional economies. And in order to achieve sustainable development required is a careful balance between a stable ecology and a strong economy. A stable ecology ensures that living organisms can interact harmoniously with their environment. A stable economy, on the other hand organizes productive forces to efficiently transform materials and energy into consumer products while minimizing waste. Both systems must work together to support long-term global health and prosperity. The works of Sharma, Hussain and Singh published in Journal of Scientific Research Institute of Science, BHU, India, Volume 65, Issue 3, 2021 under the caption 'Integrated Approaches of Ecology and Economy for Sustainable Development with Special Emphasis on Ecosystem Services: A Review' may be seen from the following:

The general definition of sustainability should touch upon almost all the aspects of economic, ecological, and social development (Rennings & Wiggering, 1997). The three most crucial management rules of resource use have been derived from it.

- Harvest rates of renewable resources should not surpass regeneration rates.
- Waste emissions should not surpass the appropriate assimilative capacities of ecosystems.
- Non-renewable resources ought to be exploited in a very quasi-sustainable manner by limiting their depletion rate to the speed of creation of renewable substitutes. These three management rules characterize a sustainable use of natural resources. Now, sustainability has two fundamental components.

> First is ecological sustainability, defines as the ecosystem's capacity to remain diverse, productive, and resilient over time and maintain the supply of ecosystem services essential for human beings and other species (Farley, 2012). Another component is economic sustainability, defined as an economic system's capacity at any scale from individual households to the global economy to remain diverse, productive, and resilient over time. …Anthropogenic climate change has a significant impact on ecological and economic sustainability. (Sharma, Hussain and Singh, Institute of Science, BHU p/104)

4. The role of literature to effect this transformation

The power of words in shaping the futurity of the habitats is immense. To solve issues like poverty, inequality, and climate change, we must use the power of communication to reach out to greater community of the globe. Literature plays a vital role in accelerating the transition from vulnerability to sustainability. Literature is the emotional and psychological engine of this transformation. While science gives us the data, technology gives us the tools, and policy gives us the rules, literature gives us the will to care. Literature functions as a vital interdisciplinary bridge that connects ecological systems with environmental justice. Through evocative metaphors and similes, narrative storytelling transforms complex social-ecological realities into accessible, empathetic works that foster a deep sense of shared responsibility. This is exactly what we achieve in reality. Data tells us the planet is warming, but literature makes us feel the loss of a drying river or the ghost of an extinct species. To shift humanity from a mindset of exploiting nature to one of coexisting with it, literature emerges as powerful tool of social change with its varied roles. Some of which are as follows:

1) Making us feel interconnected with Nature (Eco-poetry & Eco-criticism)

By portraying nature as an active character with its own rights and voice, literature helps us move from an anthropocentric (human-centered) worldview to a bio centric (life-centered) one. In this regard, the poems like Mary Oliver's 'River', Tagore's 'Basundhara' and Dominic's 'I can hear the groan of mother earth' may be seen as specimen. In all these cases the concern for breaking equilibrium of the environment has been highlighted and a clear message has been conveyed that Man and Environment are interconnected as seen from the following:

In her poem "The River," Oliver expresses that the river represents its own essence and existence. The river serves as a metaphor for the uninterrupted flow of time and the interdependence of all living beings. The inclusion of symbolic components in both collections serves to enhance the overall thematic importance, underscoring Mary Oliver's deep involvement with environmental issues. The geese, trees, and water serve as conduits for Oliver to convey profound insights about the connection between humans and environment, going beyond their literal representations. These symbols prompt readers to contemplate their own lives and the interdependence with the natural world. (Hassan/260,)

Rabindranath Tagore's Bengali poem *Basundhara*, translated by Amrit Sen as *Mother Earth*, shows his deep love for nature, his wish to belong to the common earth, and his rejection of lonely asceticism and the same may be seen as follows:

Earth, take me back,
Your lap-child back to your lap
In the shelter of your sari's voluminous end.
Mother made me of Earth, may I
Live diffused in your soil; spread
Myself in every direction like spring's joy;
Burst this breast-cage, shatter this stone-closed
Narrow wall, this blind dismal jail
Of self; swing, hum, shake,
Flop, radiate, disperse,
Shudder, be startled by
Sudden lights and thrills,
Flow through the whole globe-

The poet is here in great joy, the joy is always endless. (Bakchi,)

Environmental issues are nicely dealt in the writings of Dominic. His sensitive mind clearly draws bitter experiences in detailing the wounds on the benign Nature caused by man. Dominic writes:

I can hear the groan of mother earth
. . . . . .
I can hear her shriek for help
when they cut each her vein
and drain all brooks and rivers
Can't you hear your mother's wail
when they pluck her hair after hair
felling trees and plants which protect them?
I can hear the scream of the elephants, tigers,
Boars, snakes and all wild animals
when they drive them from their homes
and starve to death by burning forests
I can hear the death cry of bird after bird
when they cut their feeding trees
to make their selfish life more luxurious
(*Cataracts of Compassion*, 41)

2) Making the Invisible Visible (Climate Fiction or "Cli-Fi")

Ecological crises are often slow, massive, and invisible to the naked eye until it's too late. It's hard for the human brain to process a threat that happens over decades. Literature compresses time and space. It forces us to witness the long-term consequences of our current actions, turning cold statistics into vivid, unforgettable human stories. Richard Powers' the Overstory is a remarkable novel with a powerful message: trees are important and they are essential for life on Earth. Structured in four parts (Roots, Trunk, Crown, and Seeds), the book explores ecological awareness, activism, and the vast, interconnected world of nature. Again, Amitav Ghosh's The Hungry Tide is another excellent climate fiction. These two are just specimen of Cli-Fi that tells the tale of integral bonding of

man and Nature. The following may be seen in this regard:

Amitav Ghosh's The Hungry Tide (2004) emerges as a seminal text in contemporary Indian environmental literature, presenting a nuanced exploration of the complex relationship between human communities and the natural world in the Sundarbans delta of India and Bangladesh. This ecocritical study examines how Ghosh constructs an intricate narrative that challenges anthropocentric worldviews while interrogating the tensions between conservation, development, and indigenous survival. (Pradhani)

3) Rewriting Our Myths: From Dominance to Stewardship

Literature bridges the gap between ownership and stewardship, shifting our perspective from exploiting resources to treasuring them. It teaches us to view the Earth and its resources as gifts held in trust, inspiring us to nurture and pass them on to the next generation with enduring legacy. It is through literature that the mindset changes for caring and preserving the equilibrium of the environment.

4) Designing the Future (Solarpunk & Speculative Fiction)

Man and Nature are integral parts of the cosmos. The vision of a harmonious future, where humanity overcomes the climate crisis by seamlessly integrating technology with nature, lies at the core of an emerging literary genre called solarpunk. It is a speculative fiction movement that subverts climate fatalism by imagining hopeful, post-capitalist futures. It focuses on sustainable technology, community cooperation, and egalitarian societies where humanity lives harmoniously with nature, replacing dystopian gloom with actionable ecological optimism. To feel the need of literature of this special genre the following may be seen further in this regard:

Solarpunk is characterized by its focus on sustainability, renewable energy, and community values, challenging the narrative of unchecked technological advancement. Key themes within Solarpunk literature, including environmental justice, community building, and sustainability, are analysed, highlighting the movement's commitment to addressing environmental problems and fostering a sense of social cohesion. The importance of renewable energy, green technology, and inclusivity are outlined as defining features, emphasizing the genre's commitment to harmonizing human society with the natural world. (Sinha)

5. Conclusion

Relationship between humans and nature is neither as a struggle for dominance nor for clinical sustainability. All environmental problems are likely either to evaporate or to die down once this relationship builds a shared emotional and psychological ecosystem. When the earth starts smiling following a series of scrupulous human actions rendering it vibrant, bio diverse, untainted, and structurally sound, the humanity too enjoys flourishing with excellent experiences of clean air, pure water, and nutrient-rich soil–indispensable for human health. Environmental problems are however, not confined to biological origins only. They are affected much by political ecology too, an interdisciplinary field that examines relationship between environmental issues and political, economic and social factors. The roles of political factors like power dynamics, global capitalism, and historical legacies that often marginalize some communities influence much to build a healthy environment around us. To solve issues like poverty, inequality, and climate change, we must use the power of communication to reach out to the greater community of the globe. Literature plays a vital role in accelerating this transition from vulnerability to sustainability. Literature is the emotional and psychological engine of this transformation. While science gives us the data, technology gives us the tools, and policy gives us the rules, literature gives us the will to care. In fine, to fight off fragile future of the fractured earth literary voices with emotional and lived experiences backed by power of scientific data diagnosing the causes of environmental degradation and miracles of technological tools for healing the ecological challenges looks like a panacea for transition of this global village from vulnerability to a sustainability.

References

[1] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, "IPBES-12 Summary," Earth Negotiations Bulletin, IISD, Jul. 2026. [Online]. Available: https://enb.iisd.org/intergovernmental-science-policy-platform-biodiversity-ecosystem-services-ipbes12-summary

[2] B.-I. Inogwabini, "Ecology and Sustainable Development," in *Encyclopedia of Sustainability in Higher Education*, W. Leal Filho, Ed., Cham, Switzerland: Springer, 2019, p. 2.

[3] Sharma, Hussain, and Singh, "Title of Article," *J. Sci. Res.*, Inst. Sci., Banaras Hindu Univ., vol. 65, no. 3, p. 104, 2021.

[4] M. Hasan and H. Radhi, "Environmental Awareness in the Selected Poems of Mary Oliver: An Eco-critical Approach," *J. Lang. Stud.*, vol. 8, no. 3, pp. 256–276, Mar. 2024.

[5] P. Bakchi, "Ecological Thoughts of Rabindranath Tagore," *The Literati: A Literary Journal (TLHjournal)*, vol. 7, no. 5, pp. 13-22, February 2022.

[6] K. V. Dominic, *Cataracts of Compassion*. New Delhi, India: Authorspress, 2017.

[7] Pradhani, "Amitav Ghosh's *The Hungry Tide*: An Ecocritical Analysis," *Creative Flight*, Feb. 2026. [Online]. Available: https://www.creativeflight.in/2026/02/amitav-ghoshs-hungry-tide-ecocritical.html

[8] P. Sinha, "Solarpunk: Envisioning Ecological Futures Through Positive Speculative Fiction," May 2024. [Online]. Available: https://www.researchgate.net/publication/380792007_solarpunk_envisioning_ecological_futures_through_positive_speculative_fiction