

Original Article | ISSN (0): 2582-631X

DOI: 10.47857/irjms.2025.v06i03.04914

(Re)Imagining the Anthropocene: Narrative Strategies and **Systemic Critique in the Climate Fiction of Kim Stanley Robinson and Amitav Ghosh**

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Climate fiction (cli-fi) has emerged as a battleground for reimagining agency and its responsibility in the Anthropocene. It invites us to explore new narratives and possibilities in a world grappling with climate change, urging us to envision a future shaped by our choices and actions. Analyzing works by Kim Stanley Robinson and Amitav Ghosh, this paper argues that their cli-fi rejects apocalyptic fatalism, advancing a "radical incrementalism" that bridges systemic critique with speculative courage. Robinson's techno-utopianism (carbon coins, terraformed economies) literalizes extractive capitalism critique, while Ghosh's mythic realism centres subaltern histories and non-human agency, by dismantling Eurocentric environmentalism and privileging Indigenous cosmologies over extractive science. Though divergent -Robinson engineers institutional reforms; Ghosh resurrects colonial erasure – both dismantle neoliberal green washing and human exceptionalism. Their narrative strategies (fragmented policy memos, cyclical temporality) redefine cli-fi as "speculative historiography," where utopian futures and colonial pasts collide to map post capitalist alternatives. By analyzing textual innovations - from Robinson's hybrid human-AI ecologies to Ghosh's insurgent folklore - it demonstrates the way literature can rewire humanity's relationship with crisis, transforming despair into a "politics of possibility". In an era of climate apartheid, their fiction insists that another world is not just imaginable - it is being written, one radical page at a time.

Keywords: Anthropocene, Apocalyptic Fatalism, Climate Fiction, Ecological Futures, Post Capitalism, Techno-Utopianism.

Introduction

The twenty-first century burns at both ends in the grip of human-driven calamities. This is what has been happening since the last quarter of the millennium: wildfires reduce ancient forests to ash, oceans sour into tombs for coral reefs, and hurricanes redraw maps of coastlines overnight. These are not anomalies but symptoms of the Anthropocene – a term coined to mark humanity's geologic tyranny, yet one those risks absolving the very systems that lit the fuse. For Bonneuil and Fressoz, the Anthropocene is a smokescreen, its universalizing narrative laundering colonial plunder and industrial greed into a bland tale of "human" culpability (1). This geological epoch is the tyrannical reality of our condition, proposed in the 2000s by specialists in Earth system sciences as an essential tool for understanding what is happening to us. Their dissent finds an ally in Jason W. Moore's "Capitalocene", which reframes ecological collapse as capitalism's slow arson, its flames fed by the myth of "Cheap Nature" - the violent fantasy that Earth's labour, energy, and ecosystems exist to be mined, monetized, and discarded. Moore's lens exposes how racial capitalism and gendered exploitation are not byproducts but blueprints of planetary unraveling (2). Yet the crisis runs deeper than stratigraphy. As Dipesh Chakrabarty (3) warns, the Anthropocene shatters modernity's delusions of progress, human exceptionalism, and mastery over nature. By collapsing human history (a blink in geologic time) into planetary timescales (millennia of ice ages, extinctions, and tectonic shifts) and forcing humanity to confront its paradoxical role: a species powerful enough to alter Earth's ecosystem, at the same time fragile enough to be undone by its own actions. This dual identity: "Dominant" as an apex predator and "Vulnerable" as an endangered species shatters the Enlightenment myth of humans as separate from or superior to "Nature".

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(Received 11th April 2025; Accepted 08th July 2025; Published 29th July 2025)

In this rupture, literature becomes a battleground. Amitav Ghosh calls climate change a "great derangement" - not just of ecosystems but of storytelling itself, where realism falters and nonhuman voices drown in the silence (4). Into this fray strides, Donna Haraway howling against the Anthropocene's apocalyptic scripts. "Chthulucene"- a messy, tentacular epoch of "staying with the trouble" demands - we abandon the fiction of human sovereignty and instead "make kin" with lichen, storms, and silt (5). This ethos pulses through Kim Stanley Robinson's novels, where terraformed Mars and blockchain carbon coins entangle human and non-human survival, and Amitav Ghosh's Sundarbans, where cyclones and tigers dictate plotlines. Dipesh Chakrabarty's "planetary historicity" sharpens this vision, collapsing the clockwork time of capitalist modernity into the deep-time rhythms of ice cores and coal seams. For Chakrabarty, climate change is not a future tense but a "temporal collision", one that forces a Kolkata slum dweller and a Cretaceous ammonite into the same breath (3, 6). Bruno Latour tosses another grenade: agency, he argues, is not a human birthright but a planetary negotiation. His "geosocial actors," like the oceans that revolt and Carbon molecules that testify the human cataclysmic nature - animate Ghosh's Gun Island, where migrant snakes and rising seas become co-authors of the Anthropocene (7, 8).

If literary realism, as Ghosh laments, falters before the "ungraspable" scale of planetary unravelling, then climate fiction (cli-fi) cracks open the genre's cage. Cli-fi is not escapism but a narrative insurgency of a "catastrophe culture" that drags the slow violence of environmental collapse into the harsh light (9). Consider the genre's devices: fragmented timelines, hybrid genres, non-human narrators (10). These are not stylistic quirks but survival tactics, forcing readers to confront the Capitalocene's twin engines, i.e., colonial theft and capitalist extraction – while centering voices erased by Western realism's "great derangement" (4).

Robinson and Ghosh embody this insurgency. Robinson's *Mars Trilogy* terraforms Fredric Jameson's "political unconscious", embedding utopian critique in the soil of Martian valleys (11-14). His "angry optimism" – a fusion of dystopian grit and pragmatic hope – mirrors Lauren Berlant's "cruel optimism", where the desire to survive

persists even as institutions crumble (15, 16). Ghosh, meanwhile, wields myth like a scalpel. In Gun Island, a 17th-century Bengali folktale bleeds into Venetian floods and Los Angeles wildfires, Adeline Johns-Putra's enacting cosmopolitanism" not as a theory but as lived praxis (8, 17). His "uncanny" narratives refuse to let modernity's ghosts rest, insisting that the Anthropocene is as much about resurrecting erased pasts as inventing futures. Climate fiction (cli-fi), a genre-straddling speculative futures and historical reckoning, has risen to this challenge. Unlike traditional realism, which Ghosh critiques for its inability to metabolise the "unthinkable" scale of ecological collapse, cli-fi employs narrative experimentation to interrogate Anthropocene's root causes: capitalist extraction, colonial violence, and human exceptionalism (9, 17). As Bould (The Anthropocene Unconscious) argues, cli-fi operates as a "catastrophe culture," rendering visible the slow violence environmental collapse that Rob Nixon defines as "a violence that occurs gradually and out of sight, dispersed across time and space" (9, 11). This aligns with Ghosh's critique of literary realism in The Great Derangement, where he condemns the genre's failure to address climate change's ungraspable scale and its marginalization of non-Western epistemologies (4). Putra positions cli-fi as a form of "eco-cosmopolitanism," bridging local and global scales of ecological crisis (17). Fredric Jameson's Archaeologies ofthe Future contextualizes cli-fi's utopian impulses, framing works like Robinson's Mars Trilogy as "political unconscious" critiques of neoliberal capitalism. Lauren Berlant's "Cruel Optimism" further illuminates the genre's tension between dystopian despair and utopian hope, a dynamic evident in Robinson's "Angry Optimism" and Ghosh's insistence on uncanny narratives that merge myth and materiality (11-16).

If the Anthropocene is a crime scene, Kim Stanley Robinson and Amitav Ghosh are its forensic poets. Robinson wields the scalpel: his novels dissect capitalism's necrotic heart, suturing technoutopian hope to the raw nerves of crisis. In *The Ministry for the Future*, blockchain carbon coins and rewilding bonds aren't mere plot devices – they're narrative defibrillators, shocking moribund systems back to life (18). Ghosh, meanwhile, traffics in ghosts (encapsulates his

project: to haunt the Anthropocene with the spectres of colonialism, to resurrect subaltern histories, and to insist that climate justice requires "ethical haunting" - a refusal to let power bury its crime). His Sundarbans, a labyrinth of sinking islands and insurgent tides, resurrect colonial violence that neoliberalism tried to drown. This paper argues that Robinson and Ghosh reconfigure cli-fi as a mode of systemic critique, using narrative strategies that merge speculative world building with historical materialism. Where Robinson's "angry optimism" drafts blueprints for post capitalism, Ghosh's mythic realism exhumes Indigenous cosmologies buried beneath the Capitalocene's concrete (15). Yet their cli-fi shares a radical core. Both reject the binary of utopia and apocalypse, instead treating crisis as a "catalyst". Robinson's flooded Manhattan and Ghosh's migrant snakes are not dystopian set pieces but narrative portals - spaces where solidarity mutates, debt strikes become tidal waves, and nonhuman agency rewrites the plot (8, 9). This is cli-fi as Donna Haraway's "tentacular thinking": a genre that entangles policy and myth, human and nonhuman, into what I term "radical incrementalism" (5).

Methodology

This study employs an interdisciplinary methodology, combining ecocritical theory, postcolonial studies, and utopian/dystopian literary analysis to interrogate the narrative strategy and political ecologies. Analysing these authors through frameworks of Donna Haraway's 'Chthulucene' and Jason W. Moore's 'Capitalocene' to illuminate how cli-fi bridges speculative futures and ethical accountability, by offering a literary blueprint for navigating ecological collapse (2, 5). The concept of the "Capitalocene" has been used to frame ecological collapse as the result of capitalist accumulation rather than generalized human activity (2). This lens allowed climate fiction to be read not merely as speculative storytelling but as embedded critique of racialized and gendered structures of extraction. To complement this idea, the "chthulucene" was adopted to consider how non-human agency and multispecies entanglement are foregrounded in narrative as part of planetary ethics (5). The "Slow Violence" framework further informed this reading of structural and temporal forms of environmental degradation that are dispersed and invisible within conventional narrative timelines (9).

Narrative techniques such as fragmented chronology, non-linear temporality, polyphonic structure, and intersexual layering were analyzed to understand the authors challenge towards realism's epistemological limits. These techniques were treated not as stylistic innovations alone, but as ideological acts that reconfigure agency across species and histories. A textual strategy which includes policy memos, mythic insertions, and multi-voiced narration has been examined for their capacity to encode systemic critique.

The corpus selected included major works representing speculative futurism postcolonial realism within cli-fi narratives: The Ministry for the Future, Aurora, The Mars Trilogy, Aurora, and New York 2140 on one side, and Gun Island and The Hungry Tide on the other. Close reading was deployed to isolate how these texts narrativize climate breakdown while proposing material, ethical or spiritual alternatives to the neoliberal and anthropocentric dominant paradigms.

The methodology was oriented not only towards literary analysis but also toward identifying the socio-political imaginaries embedded in narrative form. In doing so, the study situates itself within recent efforts to treat climate fiction as a praxis of resistance. The following sections explore their contrasting yet complementary visions: Robinson's techno-utopianism as a rebuttal to neoliberal paralysis and Ghosh's mythic realism as a counter-narrative to Western Anthropocene discourse.

Results

Kim Stanley Robinson and the Politics of Post Capitalist Futurity

Kim Stanley Robinson, whose science fiction novels and short stories craft narratives that interrogate the interplay between planetary-scale ecological precarity and the sociopolitical scaffolding of human societies. His work grapples with the existential stakes of climate collapse, the ethical ambiguities of terraforming, and the contested futures of scientific praxis. Through nuanced explorations of post capitalist economies, interspecies reciprocity, and the geophysical consequences of human ambition, Robinson's

oeuvre bridges speculative imagination and material urgency, offering not merely cautionary tales but blueprints for reimagining governance, labor, and ecological stewardship. He considers science fiction - the realism of our time. For Robinson, the narrative frame provided by science fiction gains its power from combining the two disparate elements that give the genre its name. 'Science' implies the world of fact, and what we all agree on seems to be true in the natural world, whereas 'Fiction' implies values and meanings to the stories we tell to make sense of worldly things. David Hume reasoned that it's impossible to argue from the way "the world is" to the way "the world ought to be", Robinson continues, "and yet here is a genre that claims to be a kind of 'fact-values' reconciliation, a bridge between the two".

One can feel Robinson's sense of urgency about getting information across the readers, real information and facts that could change the course of things. His fictions, primarily climate fiction, reimagine the Anthropocene not as an endpoint but as a contested terrain where techno-scientific innovation and radical democracy might forge alternatives to neoliberal capitalism. Through speculative world building, his novels interrogate the structural roots of ecological collapse while prefiguring systems that prioritize planetary wellbeing over profit-devouring irrational minds. This section analyses Robinson's narrative strategies across these key texts - The Ministry for the Future, Aurora, New York 2140, and the Mars Trilogy - to argue that his "angry optimism" offers a blueprint for post capitalist futurity, blending systemic critique with pragmatic utopianism (11-13, 18-

Robinson's *The Ministry for the Future* confronts the failures of neoliberal economics head-on, framing climate change as a crisis of governance and value. The novel opens with a harrowing account of a 2025 heat wave in Uttar Pradesh, that kills 20 million people – a near-future allegory of climate injustice (12).

People were dying faster than ever. There was no coolness to be had. All the children were dead; all the old people were dead. People murmured what should have been screams of grief; those who could still move shoved bodies out of the lake, or out toward the middle where they floated like logs, or sank. Frank shut his eyes and tried not to listen to the voices around him. He was fully immersed in

the shallows, and could rest his head back against the concrete edge of the walkway and the mud just under it. Sink himself until he was stuck in mud and only half his head exposed to the burning air (18). This catastrophe catalyzes the titular ministry, a supranational body established in Zurich, Switzerland, after the Paris Agreement 2024; tasked with advocating for future generations, to orchestrate a global transition away from fossil capitalism. Its fragmented narrative – alternating between policy memos, eyewitness accounts, and speculative vignettes - mirrors the disjointed yet interconnected realities of the climate crisis (21). Central to its vision is the concept of the "carbon coin," a blockchain-based currency serving as a financial tool to reward carbon sequestration efforts. Robinson frames this not as a technocratic fix but as a systemic overhaul, decoupling value from extractive growth and aligning economies with biospheric limits (2).

The Ministry's entanglement with eco-radical networks and global financiers exposes a paradox central to contemporary climate politics: can systemic change be wrought through institutions complicit in the crisis they claim to resolve? Mary Murphy, the Ministry's embattled director, voices this dissonance with weary clarity: "Politics," she remarks, "has become a ghost of itself - a ritual performed in the ruins of its own making" (Robinson, 18). Her lament mirrors Moore's indictment of the "Capitalocene," a regime defined by capitalism's unyielding demand for "Cheap Nature" - the systematic devaluation of labor, ecosystems, and life itself to fuel profit (2). Yet Robinson's narrative resists fatalism. Instead, as Tomás Vergara argues, it forges a "politics of possibility", a fraught but deliberate alliance between grassroots insurgency and bureaucratic pragmatism (21). This tension erupts most viscerally in Robinson's unflinching account of a lethal heat wave gripping Uttar Pradesh. Temperatures soar beyond 50°C, hospitals buckle under bodies "piled like firewood," and the air curdles into a "poisonous sludge" (18). Such scenes, Vergara contends, "materialise capitalism's abstractions - the externalities of economic theory made flesh in human suffering" (21). Robinson's prose oscillates between clinical precision detailing carbon-capture technologies and policy loopholes - and searing imagery that renders ecological collapse intimate, and unavoidable. The

effect is deliberate: to collapse the distance between boardroom calculus and the lived reality of climate catastrophe.

Critically, however, the novel refuses to sanctify its protagonists. The Ministry's collaboration with eco-terrorists (a tactic born of desperation) raises ethical quandaries that Robinson neither romanticizes nor resolves (18). Can institutions designed to uphold extractive systems ever dismantle them? This question haunts the narrative, echoing Moore's assertion that the Capitalocene is not an accident but an "ecological regime" engineered by racialized, gendered hierarchies of exploitation (20). When Murphy justifies her compromises – "We work with the ruins" – she inadvertently channels Moore's critique: even resistance risks replicating the logic of the systems it opposes (2).

Yet Robinson's project is not nihilistic in its vision. Vergara identifies in the novel a "stubborn, almost reckless hope", one that rejects both neoliberal incrementalism and revolutionary purism (21). By grafting grassroots fury onto institutional leverage - a strategy exemplified by the Uttar Pradesh survivors' class-action lawsuit against fossil fuel conglomerates - the narrative insists that accountability is not a utopian ideal but a material demand. Here, Robinson's fusion of technical detail and human urgency serves a radical end: to render visible the architectures of power that treat life as collateral. He avoids simplistic techno-fixes. The ministry's incremental victories - from debt forgiveness for green policies to rewilding initiatives - reflect what Lauren Berlant terms "cruel optimism," where hope persists despite systemic inertia. This tension epitomizes Robinson's "radical incrementalism": a belief that postcapitalist transitions are not linear or but require instantaneous both utopian imagination and grinding bureaucratic lab our for policy reform and institutional change.

In Robinson's The Mars Trilogy (Red Mars, Green Mars, Blue Mars) (11-13), terraforming acts as a metaphor for humanity's reckless association with planetary systems. The story begins with the hundred settlers sent off for initiating the colonization project of converting Mars into a habitable planet. This initially mirrors Enlightenment-era hubris, with scientists like Sax Russell viewing the planet as a "blank slate" for the grand design of human mastery (22). However,

Robinson subverts this technocratic fantasy by exposing terraforming's unintended consequences: runaway greenhouse effects, ecological collapse, and social strife. The trilogy's protagonist, Ann Clayborne, embodies this critique, arguing that Mars's "primordial" geology holds intrinsic value beyond human utility. To her, Mars's colossal canyons, Polar Ice Caps, Ancient river valleys and others are not raw materials to exploit; but, a testament to time's slow artistry, indifferent to human ambition. The narrative's shift from exploitation to "eco-economics" - a system where ecosystems are stakeholders in governance - parallels Moore's call to abandon "Cheap Nature" logic (2). By the trilogy's conclusion, Martian society staggers toward humility by integrating human and non-human needs, decentralizing power through watershedbased democracies. Robert Markley frames this tension as a rejection of neoliberal globalization, positing that Robinson's "eco-economic" models prioritize resilience over growth (22). Yet the trilogy's ambivalence toward techno-science lingers: even as terraforming enables survival; it perpetuates Anthropocene-style interventions proving that even survival cannot sanitize humanity's knack of destruction.

Robinson's later works, *New York 2140* and *Aurora*, also temper dystopian collapse with what Gerry Canavan termed "angry optimism" – a narrative mode that channels indignation into collective action (15, 19, 20). *New York 2140* envisions a flooded Manhattan where rising seas literalize capitalist debt, with submerged skyscrapers becoming cooperatively owned "intertidal" housing (19).

The floods inundated New York harbour and every other coastal city around the world, mainly in two big surges that shoved the ocean up fifty feet, and in that flooding lower Manhattan went under, and upper Manhattan did not. ...So it's still New York. People can't give up on it. It's what economists used to call the tyranny of sunk costs: once you have put so much time and money into a project, it gets hard to just eat your losses and walk. You are forced by the structure of the situation to throw good money after bad, grow obsessed, double down, escalate your commitment, and become a mad gibbering apartment dweller, unable to imagine leaving. You persevere unto death, a monomaniacal New Yorker to the end (19).

The novel's ensemble cast – a mix of financiers, activists, and squatters – orchestrates a debt strike to nationalize the Federal Reserve, echoing David Graeber's critiques of financial capitalism (23). Here, Robinson reimagines the crisis as a catalyst, framing climate disasters as opportunities to 'rewire' economic systems (19). In *Aurora*, Hope emerges from radical humility. A generation ship's failed attempt to colonize Tau Ceti forces humanity to abandon interstellar expansion and rehabilitate Earth. The protagonist, Freya, embodies this shift, declaring, "We're all just animals in the end" (20). Canavan read this as a rejection of "hubristic humanism" in favor of interspecies solidarity – a theme resonant with Haraway's 'Chthulucene' (5, 15).

Robinson's cli-fi rejects both apocalyptic fatalism and neoliberal green washing, instead advocating for "post capitalist ecologies" that merge technoscientific innovation with democratic praxis. Whether through carbon coins, terraformed landscapes, or intertidal housing, his novels insist that systemic change is neither impossible nor inevitable, although it is a collective project demanding imagination, anger, and relentless incrementalism. This vision sets the stage for contrasting Ghosh's decolonial storytelling in the next section, which locates hope not in futurism but in historical and multispecies redress.

Amitav Ghosh and the Decolonial Anthropocene

Amitav Ghosh's climate fiction reframes the Anthropocene not as a geological epoch but as a narrative battleground - one where colonial modernity's silenced histories erupt into the present, demanding an ethical reckoning. Through works like The Hungry Tide, Gun Island, and the The Great Derangement, polemical Ghosh dismantles Eurocentric universalism underpinning mainstream Anthropocene discourse, recentering subaltern ecologies and non-human agency as sites of radical resistance (4, 8, 24). His fiction operates as a form of "speculative historiography", excavating the colonial roots of ecological violence while reimagining agency through Indigenous cosmologies and planetary entanglement.

In *The Hungry Tide*, the Sundarbans' tidal mangroves are neither backdrop nor resource but geosocial protagonists (7, 24). The novel's climactic cyclone, which obliterates the Dalit

refugee settlement of Morichjhāpi, is not a mere meteorological event but a materialization of Rob Nixon's "slow violence" – the attritional destruction wrought by state-sanctioned displacement in the name of neoliberal conservation (10). Ghosh's tiger, which kills the fisherman Fokir, refuses allegorical simplicity; it is both predator and victim of the "Capitalocene" extractive logic, its lethal ambush a visceral rebuttal to the myth of "Cheap Nature (2)." The subsequent funeral – attended by humans and dolphins alike – enacts Donna Haraway's "making kin", dissolving the Cartesian binaries of human/non-human and culture/nature that undergird colonial environmentalism (5).

Gun Island (8) extends this decolonial praxis through mythic realism. The resurgence of Manasa Devi, a Bengali snake goddess, in climate-ravaged Los Angeles and Venice, collapses linear temporality, binding the 17th-century spice trade's ecological plunder to contemporary climate migration. Ghosh's narrative strategy here mirrors Dipesh Chakrabarty's "planetarity" (6) - a framework that entwines human-scale urgency with deep-time geological agency. The novel's migrant characters - Rafi, a Rohingya refugee, and Tipu, a Sundarbans boatman - embody what Gómez-Barris terms "submerged perspectives," their survival tactics contesting the necropolitical borders of the Capitalocene (25). When Tipu remarks, "The water has a memory", he articulates a hydro-colonial critique: rising seas are not merely climatic effects but mnemonic forces, resurrecting histories of colonial maritime extraction (8).

Ghosh's polemic The Great Derangement indicts Western literary realism for its complicity in climate denial. By relegating non-human agency to metaphor and marginalizing the "uncanny" scale of ecological collapse in modern fiction, he argues, perpetuates the derangement of anthropocentric modernity (4). Gun Island responds by embracing what Vanessa Machado de Oliveira calls "hospicing modernity" - a narrative praxis that mourns colonial violence while nurturing pluriversal futures (8, 26). The novel's climactic vision of a transnational migrant network, spanning sinking Sundarbans islands and burning Californian forests, reframes climate justice as planetary solidarity, transcending the nation-state's necropolitical grip. Crucially, Ghosh's decolonial ethic diverges from Robinson's institutional

pragmatism. Where Robinson envisions post capitalism through carbon coins and terraforming, Ghosh locates hope in what Édouard Glissant termed the "right to opacity" – the refusal of marginalized communities to conform to neoliberal legibility (27). His fiction, like the Sundarbans' tides, erases boundaries, insisting that the Anthropocene's "great derangement" can only be countered by stories that honor the entangled agency of humans, cyclones, and mangrove roots.

Ghosh's narrative technique - blending folklore with climate disaster - subverts the linear temporality of modernity. Bonneuil and Fressoz argue that Western Anthropocene discourse often erases colonial culpability, but Gun Island counteracts this by tracing climate injustice to the extractive networks of the 17th-century spice trade (1, 8). The novel's Bengali and Venetian settings, both shaped by colonial commerce, reveal how "the past is not dead. It is not even past" (8). This cyclical (Ghosh) historiography Capitalocene's challenges the teleology, emphasizing the recursive violence of capitalism instead (2). Ghosh insists that confronting the climate crisis requires recovering subaltern histories erased by colonial modernity. Nixon's "slow violence" - the attritional destruction of environments and communities - permeates Ghosh's portrayal of the Sundarbans (10). In The Hungry Tide, the gradual salinization of soil and rising sea levels displace the 'Morichjhapi' settlers, a community of Dalit refugees whose 1978 massacre by the state foreshadows climate-driven erasure (24). Ghosh frames their plight not as an isolated tragedy but as planetary feedback, where local ecological breakdown reverberates globally (7). Unlike Robinson's abrupt disasters (e.g., The Ministry for the Future's heatwave), Ghosh's slow violence resists spectacle, unfolding in "the attrition of delayed effects" (10, 18). In Gun Island, the Sundarbans' sinking islands and ghost forests haunt the narrative, their quiet disappearance mirroring the epistemicide of Indigenous knowledge (8). It is common knowledge that almost every island in the tide country has been inhabited at some time or another. But to look at them you would never know: the speciality of mangroves is that they do not merely recolonize land; they erase time. Every generation creates its own population of ghosts (8).

Yet Ghosh counterbalances this loss with resilience: characters like Moyna, a nurse turned climate migrant, embody grassroots resistance, forging solidarity across species and borders (8). Her journey reflects the agency of marginalized communities disproportionately affected by climate change, yet refusing passive victimhood of displacement (As a nurse, she cares for people, and as a migrant, she was displaced, but she turns that into resistance). Moyna's resilience thus becomes a form of "defiance against erasure", mirroring the mangroves' own tenacity. While the mangroves "erase time" by reclaiming land, characters like her reclaim agency, weaving new narratives of survival that honor both human and non-human life.

cli-fi rejects the Anthropocene's universalizing gaze, instead situating ecological futures in the repair of colonial fractures and the recognition of non-human agency. Where Robinson envisions top-down systemic reform, Ghosh locates hope in "decolonial praxis": relearning Indigenous cosmologies, amplifying subaltern voices, and re-storying human-nature relationships (4). His work exemplifies Haraway's call to "stay with the trouble," not through technoutopianism but through radical humility and historical accountability (5). This decolonial ethic sets the stage for the next section, i.e. comparative analysis, where Robinson's post capitalist futurism and Ghosh's multispecies redress converge in their shared rejection of neoliberal fatalism.

contrasting speculative futurism postcolonial realism, it becomes evident that both Robinson and Ghosh offer climate fiction not as escapism, but as a medium of ethical confrontation. Their divergences are not reducible to optimism versus despair, or science versus myth, but reflect competing theories of agency. In Robinson's fiction, agency is institutional and systemicdistributed across supranational bodies, financial instruments, and even artificial intelligence. In Ghosh's work, agency is distributed relationally, across mangrove roots, serpent gods, and subaltern bodies, suggesting that the capacity to act emerges through historical awareness and multispecies solidarity.

Their visions of futurity also diverge. Robinson projects forward, imagining worlds structured around policy reform, technological mediation, and ecological revaluation. Ghosh looks backward, arguing that the future can only be ethically

inhabited by excavating colonial erasure and listening to ancestral voices. Narrative responsibility, therefore, differs: one builds blueprints for post capitalist governance; the other re-stories the past to repair the present. Yet, both ultimately converge in their refusal of apocalyptic fatalism. Each insists, in different registers, that climate fiction must compel action—not merely by imagining new systems, but by remembering old wounds.

In this synthesis, climate fiction emerges as both a speculative tool and a decolonial practice – a dual mandate that envisions justice not just for a damaged planet, but for the damaged histories it carries.

Discussion

Convergences and Divergences in Imagining Ecological Futures

Kim Stanley Robinson and Amitav Ghosh, though divergent in narrative scope and political praxis, converge in their insistence that climate fiction (cli-fi) must transcend apocalyptic fatalism to envision viable ecological futures. In this section I will synthesize their shared critiques of capitalism and colonialism while interrogating their contrasting approaches to scale, temporality, and agency. By analyzing how Robinson's technoutopianism and Ghosh's decolonial storytelling intersect with cli-fi's ethical imperatives, this section argues with their works collectively to redefine the genre as a site of "radical incrementalism" – a dialectic of systemic critique and pragmatic hope.

Both authors dismantle the neoliberal and colonial logics by underpinning the Capitalocene, albeit through distinct narrative strategies. Robinson's The Ministry for the Future and Ghosh's Gun Island reject the notion of climate collapse as inevitable, by framing the crisis as a catalyst portal for transformation through systemic reinventions (8, 18). In The Ministry for the Future, Robinson's protagonist and head of the Ministry, Mary Murphy embodies this ethos, declaring, "We have to act as if we can fix things, even though we know we might fail" (18). His novels are read as speculative policy manuals, where incremental victories (debt forgiveness, rewilding bonds) clash with the grinding inertia of institutional decay. Similarly, Ghosh's Gun Island concludes with Deen, the protagonist, joining a global network of climate refugees and activists, symbolizing grassroots solidarity against corporate predation (8). These narratives embody Berlant's critique of "cruel optimism" - not as surrender to broken systems but as stubborn insistence on hope amid dystopian despair. Robinson's New York 2140 illustrates this balance (16). The novel's flooded Manhattan is a site of both dystopian collapse and utopian possibility: residents convert submerged buildings into cooperatives, leveraging mutual aid to subvert financial elites. As inspector Gen Octaviasdottir notes, "The best way to survive the storm is to become the storm" (19). Ghosh's The Hungry Tide mirrors this duality: the cyclone that destroys Morichjhapi also catalyzes communal resilience as survivors rebuild with mangrove saplings and shared labor (24). Both authors frame the crisis as a catalyst for reinventing social relations, echoing Haraway's call to "stay with the trouble."

Robinson and Ghosh converge in tracing ecological breakdown to capitalism and colonialism, yet their critiques differ in emphasis. Robinson's The Ministry for the Future targets neoliberalism's "Cheap Nature" regime, proposing carbon coins and geoengineering as tools to dismantle growthbased economics (2, 18). Ghosh, in The Great *Derangement,* locates the Anthropocene's origins in colonial extractivism, arguing that the British Empire's plunder of South Asia's forests and rivers laid the groundwork for the climate crisis (4). In Gun Island, Ghosh maps this legacy through the 17th-century spice trade, linking Venetian wealth to Bengali ecological displacement (8). The novel's migrant characters, like Rafi and Tipu, embody the "slow violence" of climate apartheid, their displacement a direct consequence of historical extraction (10). They, too, destabilise human exceptionalism by centring non-human agency. In Aurora, Robinson's generation ship confronts the agency of its failing biome: "The ship's ecosystem wasn't a machine. It was a living thing, and it was dying" (20). Ghosh's The Hungry Tide elevates tigers and dolphins to narrative co-protagonists, their actions dictating human fates (24). The Bon Bibi myth, as Gómez-Barris observes, frames nature as a sacred interlocutor rather than a passive resource (25). These depictions resonate with Latour's "geosocial actors" and Haraway's "Chthulucene," which reimagine agency as distributed across species and systems (5, 7). However, Robinson's non-human actors - AI, algae,

and asteroids – reflect techno-scientific hybridity, whereas Ghosh's cyclones and deities evoke mythic relationality. This divergence reinforces their contrasting epistemologies: Robinson's faith in human ingenuity versus Ghosh's reverence for ancestral knowledge.

Robinson's "techno-utopianism" operates on a global, systemic scale, privileging macro-level solutions. *The Ministry for the Future* interweaves geopolitical negotiations with speculative technologies, envisioning a postcapitalist world order through top-down reforms (18). His narrative structure - fragmentary chapters blending policy memos and disaster vignettes mirrors the sprawling complexity of planetary governance. Jameson might interpret this as a "political unconscious," utopian where bureaucratic pragmatism prefigures alternative futures (14). The novel's utopian impulse lies not in its faith in institutions but in its formal insistence that even within capitalism's ruins, collective agency can forge alternatives.

Ghosh, by contrast, employs "mythic realism" to localize climate crises within Indigenous and subaltern histories. In *The Hungry Tide*, the Sundarbans' tides and tigers refuse abstraction, grounding ecological breakdown in the visceral struggles of the "Morichjhãpi" settlers. His nonlinear temporality – mythic pasts is erupting into the Anthropocene present – challenges Western historiography, echoing Chakrabarty's call to reconcile "deep time" with human-scale urgency (3, 6). Where Robinson's characters navigate institutional power, Ghosh's protagonists, like Deen (*Gun Island*) and Piya (*The Hungry Tide*), undergo epistemic shifts, relearning relationality with non-human worlds (8, 24).

Their political praxis further diverges like mangrove roots:

- Robinson advocates for "structural overhaul" –
 e.g., nationalizing central banks or terraforming
 Mars as survival necessities.
- Ghosh prioritizes "grassroots redress" e.g., decolonial storytelling and Indigenous solidarity as the foundation for multispecies justice.

Robinson's protagonists often work within institutional frameworks to enact change. In *The Ministry for the Future*, Mary Murphy leverages the UN to implement carbon taxation that will help in reducing global warming, at the same time, *Red*

Mars's Sax Russell advocates for terraforming through scientific consensus (11, 18). Like Gun Island's Cinta, Ghosh's characters build shadow networks, smuggling hope across borders. One wields power; the other subverts it (8). These narratives reflect Robinson's belief in "pragmatic utopianism", where systemic reform is possible through existing power structures. Ghosh's characters, conversely, operate outside formal institutions. The Hungry Tide's Fokir resists state conservation policies through illicit fishing, while Gun Island's Cinta organises migrant solidarity networks, smuggling hope across borders (8, 24). These acts of grassroots defiance align with Gómez-Barris' "decolonial praxis," which prioritises communal autonomy over statesanctioned solutions (25).

Cli-fi's potency lies in its ability to straddle speculative futures and historical reckoning, a duality embodied by both authors. Robinson's New York 2140 literalizes Naomi Klein's maxim collectivism," portraying "disaster climate disasters as opportunities to forge radical democracy (19). Similarly, Ghosh's The Great Derangement positions cli-fi as a corrective to modernity's derangement, using narrative to repair fractured human-nature relationships (4). Their works also exemplify "cruel optimism", where hope persists despite systemic inertia (16). Robinson's "angry optimism" and Ghosh's "uncanny" realism reject apolitical despair, demanding sustained engagement with the crisis. For Robinson, this means drafting blueprints for post capitalism; for Ghosh, it means resurrecting subaltern histories to re-story the Anthropocene. Robinson and Ghosh collectively redefine cli-fi as a genre of "radical incrementalism" - a narrative mode that bridges utopian speculation and historical redress. While Robinson's global futurism and Ghosh's decolonial localism diverge in method, both assert that ecological futures require dismantling the Capitalocene's extractive paradigms. Their works challenge cli-fi to transcend dystopian escapism, offering readers a dual mandate: to imagine postcapitalist horizons and confront colonial legacies. Robinson and Ghosh reject this, insisting that fiction must inspire agency rather than resignation. Their works refuse to let readers off the hook with passive despair or hopelessness; in lieu, they demand active engagement with systemic change.

Table 1: Affective and Temporal Modalities in Kim Stanley Robinson and Amitav Ghosh

Aesthetic/Temporal Mode	Kim Stanley Robinson	Amitav Ghosh
Slowness	"Radical incrementalism" as	"Slow violence" (Nixon): erosion
	processual: climate lawsuits,	of Morichjhãpi, salinization of
	bureaucratic grind, debt	Sundarbans. Slowness here is
	negotiations. Slowness becomes	trauma, accumulated erasure.
	a strategy for structural change.	
Urgency	The Uttar Pradesh heatwave,	Mythic returns (Manasa Devi),
	collapsing ecosystems, and	climate migration, and haunted
	planetary governance crises -	pasts all rush into the present.
	all produce immediacy. Climate	Urgency lies in reckoning with
	change becomes a biopolitical	histories now resurrected.
	emergency.	
Норе	"Angry optimism": pragmatic	Hope emerges from epistemic
	policies that fuse grassroots	humility and kinship – re-
	action with techno-reform (e.g.,	storying the world through the
	carbon coins, cooperative	voices of the marginalized and
	housing).	the non-human.
Despair	Institutions are hollowed out;	Despair is ethical: mourning the
	ecological collapse looms. But	colonial past, witnessing
	despair fuels systemic	displacement, surviving erasure.
	innovation.	But it's also the ground from
		which solidarity rises.

Table 1 compares how slowness, urgency, hope, and despair function across the narrative architectures of Kim Stanley Robinson and Amitav Ghosh. These are not merely affective states but formal and political strategies that shape each author's engagement with the Anthropocene. By tracking these modes, the comparison illustrates how narrative temporality and emotional resonance are mobilized to articulate differing visions of ecological agency and ethical response. In Robinson's speculative works, slowness is tied to institutional process and reformist momentum - a gradualism that undergirds his vision of "radical incrementalism." Urgency arises through catastrophic projections (e.g., deadly heat waves), prompting infrastructural and policy innovation. His version of hope is often programmatic, aligned with technical imagination and collective problemsolving. Despair is acknowledged but frequently instrumentalized to provoke systemic redesign. In Ghosh's climate fiction, by contrast, slowness reflects historical trauma and the accumulated weight of colonial and ecological loss - what has been theorized as "slow violence." Urgency emerges through mythic resurgence and climatic disruptions that collapse past and present. Hope is enacted through kinship, cosmological humility, and subaltern resilience, while despair is not overcome but ethically inhabited, serving as a precondition for solidarity and decolonial repair. This comparative schema not only illuminates aesthetic contrasts but also foregrounds the deeper stakes of narrative form in imagining planetary futures.

In this synthesis, cli-fi emerges not merely as a literary genre but as a "praxis of planetary solidarity", urging collective action across species, scales, and sovereignties. This praxis demands that we, even as privileged outsiders, actively seek to understand the struggles and triumphs of oppressed communities, working cohesively to erode the "capitalist realism" peddled by institutions that naturalize exploitation and To dismantle capitalism inequality. colonialism, solidarity must manifest as material support for decolonization, reparations, and a reckoning with the ongoing violence of colonial and racial capitalism. Only then can cli-fi's vision of radical instrumentalism transform from a narrative into lived resistance, unshackling the future from the fatalism of the present.

Conclusion

In an era where wildfires write obituaries for entire ecosystems and rising seas redraw the maps of human habitation, Kim Stanley Robinson and

Amitav Ghosh offer not escape routes but lifelines. Their climate fiction refuses to let the Anthropocene be a eulogy; instead, it becomes a manifesto – a call to re-story agency, justice, and kinship in a world unraveling under the weight of colonial and capitalist extraction. Robinson's techno-utopian blueprints and Ghosh's decolonial tapestries, though divergent in method, converge in their insistence that crisis is not an endpoint but a portal. This paper has demonstrated how their works collectively redefine cli-fi as a genre of systemic critique and ethical possibility.

Robinson's novels - The Ministry for the Future's carbon coins and New York 2140's intertidal cooperatives - not only act as speculative scalpels, dissecting neoliberalism's necropolitical logic to expose its rotting core, but also envision postcapitalist futures through institutional innovation and hybrid human-technological ecologies (18, 19). His "angry optimism" is neither naivety nor surrender but a pragmatic revolt, demanding the way we engineer systems that prioritise planetary care over profit. Ghosh, meanwhile, wields myth as a suture. In Gun Island, serpent goddesses and migrant snakes dissolve the boundary between past and present, insisting that climate justice requires resurrecting histories buried by colonial amnesia (8). His Sundarbans where tiger's script politics and cyclones erase borders - embody Haraway's "Chthulucene", where survival hinges on "making kin" with the non-human (5). Together, their works redefine clifi as a genre of "radical incrementalism": a narrative praxis that marries the audacity of postcapitalist imagination with the grit of decolonial repair. Robinson's terraformed Mars and Ghosh's sinking islands are not mere settings but collaborators - "geosocial actors" that refuse the passive role of the backdrop (7). Where Robinson maps institutional pathways (carbon taxes, decentralized governance), Ghosh amplifies from whispers the margins (Indigenous cosmologies, migrant solidarities). These divergences are not contradictions but complementary strands in a larger tapestry of resistance.

This paper has argued that cli-fi's true power lies in its ability to unsettle – to destabilise the Anthropocene's Eurocentric gaze and neoliberal fatalism. In *Gun Island*, Ghosh writes, "The world is not a puzzle to be solved; it is a story to be lived"

(8). Cli-fi, in this light, is more than a genre - it is a radical act of authorship. Robinson and Ghosh challenge us to see climate collapse not as a "great derangement", but as a "great reimagining". Their stories reject the binary of hope and despair by inhabiting the messy, fertile space between - what Lauren Berlant terms "cruel optimism", where the act of striving itself becomes revolutionary (4, 16). As the planet burns, their work invites scholars, activists, and readers to pick up the pen. They remind us that the Anthropocene is not a foregone conclusion but a collective narrative, still wet with ink. The question is no longer whether we can write a different ending but "how boldly we dare to begin". Future research might explore how Indigenous futurisms - Nnedi Okorafor's Who Fears Death or Waubgeshig Rice's Moon of the Crusted Snow - deepen this dialogue, centering epistemologies sidelined by Western cli-fi. Policy makers, too, could learn from Robinson's carbon coins or Ghosh's migrant networks, treating fiction not as metaphor but as prototype (28, 29). As the Anthropocene accelerates, such narratives become vital tools for envisioning a world where justice is planetary, solidarity is multispecies, and hope is a radical act.

Abbreviation

None.

Acknowledgement

I would like to thank my colleagues Mr. Shubham Pathak and Mr. Piyush for their insights in the paper.

Author Contributions

Shubham Kumar Gupta: conceptualization, finalized the manuscript, Prasanta Kumar Panda: literature review, further operationalized the conceptual framework.

Conflict of Interest

The authors report no conflict of interest in this study.

Ethics Approval

This article does not contain any studies with human participants performed by any of the authors.

Funding

No funding was received for this study.

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