



Indigenous Political Ecology

Progress in Environmental Geography

1–34

© The Author(s) 2026



Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/27539687261447512

journals.sagepub.com/home/pegIshfaq Hussain Malik¹ and James D. Ford^{1,2}

Abstract

Amidst escalating global socioecological crises and persistent failures of conventional environmental governance, Indigenous Political Ecology (IPE) offers an important paradigm for advancing ecological wellbeing and justice. This article argues for a transformative IPE that moves beyond merely incorporating Indigenous perspectives to fundamentally recentering Indigenous legal orders and relational accountability as foundational to equitable environmental governance and justice. IPE asserts that global environmental crises are inextricably linked to ongoing processes of colonialism, dispossession, and violations of Indigenous sovereignty. We define IPE as a critical, decolonizing framework grounded in Indigenous sovereignty, land-based legal orders, and relational ontologies. This article advances a global IPE and traces its foundations and historical trajectories, while engaging contemporary debates and emerging frontiers that expand its analytical scope and relevance in addressing decolonizing futures. We explore IPE's intersections with allied fields — decolonization studies, climate justice, environmental humanities, and critical development studies — highlighting its capacity to contribute to transdisciplinary conversations. Drawing upon diverse global case studies, this article demonstrates how Indigenous-led approaches to stewardship, relationality, and place-based responsibility offer viable, time-tested pathways for ecological wellbeing. We advocate for a paradigm shift for embracing Indigenous self-determination, epistemologies, and relational principles to confront and dismantle colonial-capitalist logics of domination and extraction.

Keywords

Indigenous Political Ecology, relational accountability, decolonization, climate justice, Indigenous sovereignty, dispossession

Introduction

Political ecology is an interdisciplinary academic field examining the intricate relationships between political, economic, and social factors and their influence on environmental issues and transformations (Robbins 2019). This approach systematically examines how power dynamics, societal structures, and economic systems collectively shape environmental outcomes and impact human societies (Elias, Joshi, and Meinzen-Dick 2021; Perreault, Bridge, and McCarthy 2015). The discipline emerged as a deliberate counter-narrative to theoretical frameworks

that separated nature from society, challenging notions of neutrality and objectivity in environmental analysis (Watts and Peet 2004).

¹School of Geography, University of Leeds, Leeds, UK

²Priestley Centre for Climate Futures, University of Leeds, Leeds, UK

Corresponding Author:

Ishfaq Hussain Malik, School of Geography, University of Leeds, Leeds, LS2 9JT, UK.

Email: i.h.malik@leeds.ac.uk

Historically, political ecology concentrated its efforts on the “Global South,” particularly examining the environmental and social consequences of large-scale resource development projects within subsistence-oriented communities (Blaikie 1985; Perreault, Bridge, and McCarthy 2015). Over time, the field’s analytical scope broadened significantly, extending its critical lens to encompass environmental politics and socioecological degradation within urban and industrialized settings as well (Roberts 2020). Central to political ecology are core concepts such as the pivotal role of power and politics in determining environmental outcomes, the impact of economic systems on environmental degradation and conservation efforts, and the inherent connection between social justice and environmental sustainability (Loftus 2019; Zimmerer 2006). The very foundation of political ecology rests on the understanding that environmental issues are inherently political, driven by human decisions, power imbalances, and economic interests, rather than being purely scientific or technical problems (Leff 2021; Robbins 2019). Critiques of mainstream political ecology have called for decolonizing the field, focusing on Indigenous epistemologies (Malik 2024).

Defining Indigenous Political Ecology

We conceptualize Indigenous Political Ecology (IPE) not simply as a subdiscipline of political ecology, but as a decolonizing field of thought and praxis grounded in Indigenous ontologies, legal orders, and place-based responsibilities. We define IPE as a relational, decolonizing framework that centers Indigenous epistemologies, laws, and land-based responsibilities to analyze and transform the structures of environmental injustice. It is both a mode of critique and a praxis of resurgence, committed to establishing ethical relations among humans, more-than-human beings, and place, grounded in Indigenous sovereignty and self-determination. IPE interrogates how colonial dispossession, state violence, and capitalist extraction are entangled with ecological degradation, while simultaneously foregrounding Indigenous worldviews.

Rooted in Indigenous epistemologies and struggles for sovereignty, IPE critically engages with,

yet fundamentally departs from, conventional political ecology by foregrounding Indigenous resurgence, land-as-kin relations, responsibilities-based governance as central to ecological and political life, and sovereignty as both territorial and epistemic. Where mainstream political ecology has historically focused on the uneven impacts of capitalist development and environmental degradation (Robbins 2019), IPE interrogates the deeper colonial structures that shape environmental governance, land dispossession, and knowledge hierarchies. As Coombes, Johnson, and Howitt (2012) argue, political ecology itself has been complicit in reproducing settler-colonial geographies and extractive research practices, often failing to engage Indigenous Peoples as knowledge holders and legal actors in their own right. IPE addresses these critiques by reframing environmental politics through Indigenous relational worldviews that emphasize mutual responsibility, intergenerational care, and ethical governance grounded in land-based law. IPE centers Indigenous epistemologies not as perspectives to be included within existing frameworks, but as foundations for reimagining the very grounds of environmental politics and governance. It is grounded in the lived realities and intellectual traditions of Indigenous Peoples who articulate their own theories of power, resistance, and land-based responsibility through law, language, story, and practice.

Crucially, IPE is not defined by disciplinary boundaries or institutional labels. It encompasses Indigenous-led scholarship and praxis — including land-back movements, Indigenous legal resurgence, Traditional Ecological Knowledge, and multispecies justice — that may not identify as “political ecology” per se, but that actively theorize the entanglements of power and resources from Indigenous standpoints. This expansive framing affirms that IPE is as much about method and ethics as it is about analysis: it insists on centering Indigenous voices, respecting ontological pluralism, and dismantling colonial frameworks of knowing and managing the environment. In this framing, IPE is both an analytical space and a decolonizing praxis that redefines environmental justice from the ground up, offering transformative pathways toward ecological integrity and Indigenous self-determination.

While many of the scholars and movements discussed in this article may not explicitly identify under the label “political ecology,” their work actively theorizes the political ecology of colonialism, extraction, care, and resurgence from Indigenous standpoints. Thus, IPE, as advanced here, is a decolonizing praxis that synthesizes Indigenous scholarship, land-based governance, and critical analysis of colonial-capitalist systems into a coherent and transformative field of thought and action.

The theoretical underpinnings of IPE are demonstrated through diverse case studies across various geographical contexts, showcasing both the efficacy of Indigenous-led approaches and the persistent challenges posed by colonial and postcolonial legacies. Here, we seek to advance a global IPE framework — one that is not bound to any singular geography, but rooted in the diverse, place-based legal orders, ontologies, and governance practices of Indigenous communities across the world.

IPE herein represents an underdeveloped yet distinct and vital critical framework within this broader discipline, fundamentally rooted in Indigenous worldviews, epistemologies, and lived experiences. It integrates political, economic, and social factors to forge an intersectional approach that aims to meet people’s socioeconomic needs while simultaneously nurturing the natural environment (Middleton 2015). IPE foregrounds Indigenous Peoples as the original stewards of Earth, whose existence and cultural practices are intrinsically woven into sustainable development processes (Whyte, Caldwell, and Schaefer 2018). This perspective acknowledges their deep, time-tested knowledge and understanding of reciprocal relationships with the environment (Beckett and O’Loughlin 2024; Jessen et al. 2022).

A key distinction of IPE lies in its challenge to prevailing dominant Western environmental paradigms. While mainstream environmentalism often operates within Western scientific and philosophical frameworks that tend to separate humans from nature or primarily view nature as a commodifiable resource. Even broader political ecology — despite its critical engagement with power, inequality, and the political-economic drivers of ecological change — often remains grounded in Western materialist and

structuralist paradigms (Gill 2024; Latour 2007; Mohan 2025; Peet, Robbins, and Watts 2010; Vetlesen 2015). In contrast, IPE is predicated on Indigenous cosmologies where land is revered as kin — an extension of the family system — and where many nonhuman entities are regarded as persons with inherent agency, voice, and the capacity to shape social and ecological governance (Chandler and Reid 2019; Dovchin, Dovchin, and Gower 2024; Middleton 2015). This profound ontological difference positions IPE not merely as an application of political ecology to Indigenous contexts, but as a fundamental re-evaluation of the underlying assumptions of Western environmental thought. It rejects the nature–culture divide altogether and advocates for a deeply relational and reciprocal understanding of human–environment interactions, moving beyond anthropocentric views.

The contemporary global environmental crises, particularly climate change, underscore the urgent relevance of IPE. Indigenous residents in places like Kivalina, Shishmaref, and Newtok in Alaska, Isle de Jean Charles in coastal Louisiana, and the Carteret Islands in the South Pacific are among the first forced to relocate due to climate change, as their homelands erode, flood, and sink beneath rising oceans (Hogg and Surjan 2022; Korkut et al. 2022; Middleton 2015; Zimmerman 2023). Decisions made by governments, policymakers, and large-scale industrial development pressures affect Indigenous lands and resources and Indigenous Peoples’ lifeways and rights, leading to a disproportionate burden of biodiversity loss and environmental degradation on Indigenous communities globally (Fernández-Llamazares et al. 2020; Kennedy et al. 2023; Malik, Ford, Way et al., 2025; Malik, Ford, Winters et al. 2025; Scheidel et al. 2023). Indigenous Peoples are affected in 34% of all documented environmental conflicts worldwide (Scheidel et al. 2023).

Importantly, these processes of dispossession and environmental injustice are not solely attributable to historical Western colonialism but also arise from contemporary domestic policies and development agendas within non-Western nation-states, such as those seen in parts of Asia (e.g., China, India, Malaysia, Bangladesh, and Thailand) and Africa (e.g., Ghana, Nigeria, and Tanzania), where Indigenous communities face similar

pressures from state-led resource extraction and land appropriation (Gómez-Baggethun 2022; Kothari and Klein 2023; McGregor, Whitaker, and Sriharan 2020; Nursey-Bray et al. 2022a). Similar dynamics are also evident in Latin America (e.g., Brazil, Colombia, Peru, and Bolivia) and the Pacific Islands, where extractive industries, agribusiness expansion, and infrastructure projects have led to displacement, ecological degradation, and the erosion of Indigenous sovereignty (Correia 2024; Fitz-Henry 2021; Isla 2021; Renfrew 2011; Wong 2018).

Indigenous Peoples are frequently on the front lines of climate change impacts, yet despite their critical contributions to developing solutions, their voices and knowledge are often systematically excluded from mainstream climate policy conversations (Farrell et al. 2021; Reyes-García et al. 2024). The current planetary ecological crises, such as climate change and biodiversity loss, are frequently framed as universal human challenges (Folke et al. 2021; Pörtner et al. 2023). However, IPE asserts that these crises are not merely universal but are deeply intertwined with, and symptomatic of, ongoing processes of colonialism, dispossession, violence, and violations of Indigenous rights. This perspective suggests that genuine sustainability cannot be achieved without directly confronting and rectifying these historical and ongoing injustices (Luoma and Moore 2024). Indeed, environmental degradation is often a form of “tacit persecution” for Indigenous communities, highlighting how power dynamics and economic interests underpin ecological degradation (Maldonado 2014). Therefore, a decolonizing approach to environmental policy and practice, one that centers Indigenous self-determination and knowledge systems, transcends ethical considerations to become a strategic imperative for the wellbeing of the planet.

This article critically intervenes in the discourse of IPE by articulating a novel framework for decolonizing environmental research and practice. Specifically, this research aims to: (i) advance a global IPE framework that is not geographically bound but grounded in the plural, place-based governance systems, ontologies, and legal traditions of Indigenous communities across the world; (ii) fundamentally recenter Indigenous legal orders and relational accountability as foundational to equitable environmental governance and justice,

moving beyond the mere inclusion of Indigenous perspectives within existing settler-colonial frameworks; (iii) critically engage dominant environmental paradigms by foregrounding how colonial-capitalist logics have produced both socioecological crises and the erasure of Indigenous authority, particularly in the context of escalating climate change and ongoing dispossession; (iv) advocate for a decolonizing approach to environmental research and practice that confronts and rectifies historical and ongoing injustices of colonialism, violence, and violations of Indigenous sovereignty, recognizing these as root causes of contemporary ecological crises; (v) bridge IPE with allied fields to outline intersectional pathways that center Indigenous resurgence, multispecies justice, and land-as-kin ethics.

This article contributes to ongoing debates in Environmental Geography by advancing an Indigenous-centered epistemological and methodological reorientation of environmental governance. By recentring Indigenous legal orders and relationality, this article challenges foundational geographic concepts such as scale — by asserting Indigenous territorial governance as a primary political scale — and the very notion of “nature,” rejecting its capitalist production in favor of relational ontologies where land is kin. In contrast to dominant paradigms that often conceptualize the environment through technomanagerial or extractivist lenses, this work foregrounds relational ontologies, legal pluralism, and land-based ethics as central to understanding human–environment relations. In doing so, it intervenes in geographic discourses concerned with political ecology, environmental justice, and decolonizing thought, offering an analysis — grounded in IPE — that bridges critical human geography with Indigenous geographies, legal geographies, and environmental governance. The inclusion of examples from different parts of the world further strengthens the geographic scope, illustrating how IPE reconfigures spatial imaginaries and challenges settler-colonial cartographies of land, law, and life.

Positionality Statement

IHM and JDF are non-Indigenous researchers whose research engages with Indigenous environmental governance, climate justice, vulnerability, decolonization,

and political ecology in diverse global contexts. We acknowledge that we write from within academic institutions shaped by colonial and extractive knowledge systems, and we recognize the responsibility this entails — particularly when engaging across Indigenous cultural and political contexts. IHM is a Kashmiri researcher bringing a perspective rooted in experiences of decolonial environmental research and political ecology, whose work with communities in the Kashmir Himalayas and Indigenous communities in the Arctic intersects with broader Indigenous and land-based movements navigating environmental change, political, and colonial challenges. JDF's long-term collaborations with Indigenous communities in the Arctic and other parts of the world center on co-producing knowledge for climate adaptation and equitable environmental governance. Our research is informed by long-term engagement with Indigenous communities across diverse geographies. These engagements have profoundly shaped our understanding of Indigenous political ecologies as lived, relational, and sovereign practices. We do not claim to speak for Indigenous communities or to represent Indigenous knowledge. Rather, we aim to amplify Indigenous scholarship, epistemologies, and governance systems through critical synthesis grounded in political ecology and decolonial thought.

Methodological Approach

We employ an iterative synthesis methodology to develop a global framework for IPE. This interpretive method draws on engagement with Indigenous scholarship, political ecology, and decolonial theory, aiming to critically assess dominant epistemological paradigms while foregrounding Indigenous ontologies, governance systems, and legal traditions as foundational to environmental thought and action. Our synthesis builds on Indigenous and allied scholarship that critiques the analytical limitations of conventional political ecology in addressing sovereignty, epistemologies, and governance. Mainstream political ecology has been critiqued for privileging hierarchical understandings of scale and structural determinism, often sidelining Indigenous agency and cultural specificity; reducing Indigenous struggles to resource conflicts; marginalizing relational ontologies; and

overlooking Indigenous temporalities and governance systems (Awâsis 2020; Blaser 2009; Coombes, Johnson, and Howitt 2012, 2013; Latulippe 2015; Mortimer 2020; Neumann 2009). These critiques provided the conceptual imperative for a re-articulation of political ecology through an Indigenous lens.

Building upon this, we undertook a synthesis of Indigenous scholarship that articulates key epistemological principles including relationality, land-as-kin, multispecies ethics, and ontological pluralism drawing on insights from Indigenous scholars (Kimmerer 2013; McGregor 2021; Simpson and Bagelman 2020; Smith 2021; Todd 2015; Whyte 2020; Wilson 2020). These concepts were brought into conversation with traditional themes in political ecology — such as power, scale, and governance — not to integrate them into an existing framework, but to reconceptualize political ecology through Indigenous thought.

To ensure that the framework was both conceptually rigorous and empirically grounded, we employed strategic exemplification, drawing on diverse case studies from Indigenous contexts across the Arctic, Amazon, Andes, Himalayas, Oceania, Southeast Asia, Australia, and other parts of the world. These cases were not selected to produce generalizable claims, but to demonstrate the ontological specificity and conceptual adaptability of IPE across diverse geographies. These examples helped in illustrating how Indigenous ontologies, governance systems, and legal orders function as dynamic, place-based systems of ecological stewardship.

Intellectual Foundations and Historical Trajectories of Indigenous Political Ecology

The field of IPE has been significantly shaped by a growing cohort of Indigenous and allied scholars whose contributions are foundational to its intellectual development. This intellectual lineage draws from both the broader discipline of political ecology and the distinct, long-standing traditions of Indigenous thought and knowledge systems. Political ecology itself emerged in the 1980s, drawing from the traditions of cultural ecology and development studies (Robbins 2019). A seminal contribution came from

Piers Blaikie, whose work on soil erosion in developing countries in 1985 critically demonstrated that environmental degradation was often a direct consequence of political and economic processes, rather than simply local land-use practices (Blaikie 1985). This marked a significant departure from earlier, often apolitical, environmental analyses. Early political ecology frequently employed a neo-Marxist framework, analyzing how local cultures were integrated into, and impacted by, the global capitalist system, thereby rejecting the notion of them as isolated or “primitive” entities (Giraldo 2019; Schubert 2005). Key figures like Julian Steward, through his development of cultural ecology, and Eric Wolf, with his political economy approach, laid groundwork by shifting anthropological focus toward human–environment interactions within broader political–economic contexts (Steward 1937, 2005; Wolf 1972). This historical trajectory, moving from cultural ecology’s emphasis on adaptation to a critical political economy perspective, represents a pivotal intellectual evolution. It signifies a transition from viewing environmental issues as isolated phenomena to understanding them as direct outcomes of power relations, economic systems, and historical injustices (Malik, Ford, and Hamidi 2026; Robbins 2019). This reframing is significant for IPE, as it situates Indigenous environmental struggles squarely within the larger narrative of colonial and capitalist expansion, revealing the systemic roots of environmental degradation and injustice (Malik and Ford 2024a; Middleton 2015).

We conceptualize IPE as underpinned by the following central tenets that distinguish it from both mainstream environmental governance and conventional political ecology. These tenets are not uniformly codified across all IPE scholarship, but this article foregrounds them as foundational to a transformative, relational approach to environmental thought and practice. A central tenet is *reciprocity and relationality*, emphasizing that Indigenous worldviews are predicated on reciprocal relationships with the environment, where land is considered kin and an extension of the family system (Tynan 2021; Whyte 2020). This stands in stark contrast to dominant Western perspectives that often reduce nature to a mere resource for exploitation (Martinez 2018; Sobeng, Morrissey, and Bloomer 2025). IPE centers

the significance of *Indigenous laws and governance systems*, and territorial sovereignties, recognizing them as essential to environmental stewardship and justice, rather than peripheral or symbolic. These laws govern the intricate relationship between people and nature, maintaining a balance between human needs and environmental impact, demonstrating resilience even in the face of colonization’s drastic effects (Acuña 2015; Carroll 2014a; Sakapaji et al. 2024; Watts 2017). The field recognizes the critical role of *traditional ecological and cultural knowledge* possessed by Indigenous Peoples, who employ time-tested practices and preventive measures for sustainable development (Ajitha, Reshma, and Huxley 2025; Das et al. 2023; Ford et al. 2020). This intergenerational knowledge, encompassing land and waterway observation techniques, offers invaluable insights for contemporary environmental challenges (Nwankwo 2025).

IPE draws attention to the historical efficacy of *sustainable agricultural practices* employed by many Indigenous collectives prior to colonization — practices grounded in reciprocity, biodiversity, and long-term land stewardship (Gordon et al. 2023; Martinez 2018; Whyte, Caldwell, and Schaefer 2018). These systems have since been systematically undermined by industrialized farming methods driven by capitalist exploitation, extractivist logics, and monocultural intensification, which prioritize short-term profit over ecological sustainability and relational accountability to land (Acuña 2015; Kröger 2022; Veltmeyer and Ezquerro-Cañete 2023). The contemporary Land-Back movement, for instance, is not merely about land restitution but about revitalizing these sustainable agricultural practices for the holistic health of the environment and natural resources (Pieratos, Manning, and Tilsen 2021). Finally, IPE stresses the importance of *inclusive language and dialogue*, advocating for genuine, open conversations with Indigenous communities in their traditional languages, rather than superficial “academic talks” to foster critical discussion and informed socioeconomic decisions (Kohsaka and Rogel 2019; Malik 2024; Zanolli et al. 2020). The core concepts of IPE — relationality, land as kin, reciprocal relationships, and Indigenous laws — are not simply alternative cultural practices. Instead, they stem from fundamentally

different *ontologies* and *epistemologies* (ways of being and knowing in the world) compared to dominant Western thought (Tuck and Yang 2012; Whyte 2020). This ontological divergence means that IPE offers not just alternative solutions to environmental problems, but alternative ways of conceiving these problems and their solutions (Das et al. 2023; Whyte 2017a). For example, perceiving land as kin inherently embeds a sense of stewardship and responsibility in a manner that commodification cannot, suggesting that authentic sustainability necessitates a fundamental shift in worldview (Tynan 2021; Veltmeyer and Ezquerro-Cañete 2023).

The field of IPE has been significantly shaped by a growing body of Indigenous and allied scholars, whose work has been foundational to its intellectual development. This lineage draws upon both the broader tradition of political ecology and the deep, place-based knowledge systems embedded within Indigenous epistemologies. Early political ecologists reframed environmental degradation as a product of structural political-economic forces, rather than local practices (Blaikie 1985; Robbins 2019). Foundational anthropologists like Steward (1937, 2005) and Wolf (1972, 1982) further embedded human-environment relations within global capitalist systems. Rather than reiterating these well-established critiques, this article builds on them by turning to IPE as a critical evolution — one that extends the structural critique while reorienting environmental analysis around relational ontologies, Indigenous governance systems, and the ethics of place-based accountability.

The rise of Indigenous scholars as leading intellectual figures marks a pivotal shift in the field. This transition not only decenters Western paradigms but also affirms Indigenous knowledge systems as authoritative sources of ecological theory. Scholars such as Robin Wall Kimmerer (Citizen Potawatomi Nation) (2013) have been central to this shift. Her work advances an ethic of relationality and reciprocity with the natural world, emphasizing that land is not a passive resource but a sentient teacher. Such perspectives challenge dominant anthropocentric paradigms prevalent in mainstream environmentalism and propose alternative modes of environmental engagement grounded in Indigenous cosmologies.

Linda Tuhiwai Smith (Ngāti Awa, Ngāti Porou, and Māori) (2021) offers a critique of Western research methodologies and practices, arguing that academic research has historically facilitated economic and cultural imperialism, shaping policies that entrench unjust power relations and exploit Indigenous communities. Her insistence on decolonization, social justice, and Indigenous self-determination in knowledge production has reshaped research ethics and methodologies across disciplines (Smith 2021). This is crucial for understanding and addressing the impacts of climate change and dispossession, as it insists on research that directly benefits communities and challenges colonial narratives.

Shawn Wilson (Opaskwayak Cree) (2024) further develops this framework by centering relational accountability as the foundation of Indigenous research paradigms. Wilson posits that relationships do not merely shape reality, they are reality, and that accountability to these relationships is central to ethical Indigenous research (Wilson 2020). His work advocates for research that emanates from, honors, and illuminates Indigenous worldviews, challenging Western frameworks that often fail to grasp the holistic nature of Indigenous knowledge. Eve Tuck (Unangax[^]) and K Wayne Yang (2012) expanded these critiques into broader discussions of settler colonialism and decolonization, aiming to engage Indigenous social thought to create fairer and just social policy and more meaningful social movements, contributing robust approaches to decolonization. They critique the superficial use of decolonizing rhetoric in academic and policy contexts, instead calling for structural transformation rooted in the return of land and sovereignty (Tuck and Yang 2012).

Leanne Betasamosake Simpson (Michi Saagiig Nishnaabeg) (2016) critiques extractivism — the colonial-capitalist logic that views land, nonhuman relatives, culture, and even Indigenous bodies as mere resources to be exploited. Simpson promotes Indigenous resurgence that emphasizes the revitalization of Indigenous governance through land-based practices and cultural continuity, emphasizing a philosophy grounded in bringing traditional ways of living into a collective future without exploitation. Zoe Todd (Red River Métis) (2015) contributes

significantly to discussions on human–fish relations, colonialism, Indigenous governance, and the decolonization of anthropology. Her work, particularly on “Indigenising the Anthropocene,” challenges Eurocentric approaches to environmental crises by foregrounding Indigenous epistemologies and ontologies, recognizing the inherent agency of nonhuman entities, and advocating for a decolonizing approach to environmental thought and praxis (Todd 2015).

Significant contributions also include Gregory Cajete (Tewa Indian) (2000), who articulates Indigenous science as a relational and holistic understanding of the world, and Berkes (2017), whose work on traditional ecological knowledge underscores the complex social institutions embedded in Indigenous resource management. Daniel Wildcat (Yuchi member of the Muscogee Nation of Oklahoma) (2010) highlights the urgency of climate change while calling for a cultural shift in human–environment relations through Indigenous worldviews. Dina Gilio-Whitaker (Colville Confederated Tribes) (2019) provides a trenchant analysis of environmental injustice as a consequence of settler colonialism, while The Red Nation (2021) articulates a radical Indigenous vision for planetary survival and justice. Indigenous legal theorists such as John Borrows (Anishinaabe/Ojibway and a member of the Chippewas of the Nawash First Nation in Ontario) (2010) and Val Napoleon (Cree from Saulteau First Nation) (2012) have been instrumental in articulating the importance of Indigenous legal orders and pluralism in advancing environmental governance and self-determination, advocating for Indigenous sovereignty in environmental governance.

Contributions anchoring IPE’s canonical foundations include the work of Laura M. Mortimer, who uses a “political ecology of healing” through the case of Kateri Tekakwitha along the Kaniatarowanenneh (St. Lawrence River) through the resilience of Native women and their kinship networks — demonstrating how spirituality, embodied relationality, and care for land became enduring forms of resistance and testimony to unbroken Indigenous power (Mortimer 2020). Sākihitoŋin Awāsis (Anishinaabe) further deepens IPE’s conceptual terrain by linking it to temporal critiques. This work highlights how Anishinaabe ways of living and governance embrace cyclical and

relational temporalities, which are routinely undermined by settler-colonial impact assessment regimes that operate on extractive linear timeframes — thereby eroding Indigenous self-determination and the authority of clan-based governance (Awāsis 2020).

Clint Carroll (2014b) further develops IPE by examining the dynamic environmental practices of the Cherokee Nation, showing that tribal statecraft and natural resource governance are not outside of political ecology, but reconstituted through it. The concept of “Native enclosures” (Carroll 2014a) critiques the paradox of tribal national parks, revealing how stewardship is enacted in tension with both settler conservation regimes and internal nation-building efforts. In the Latin American context, Vargas Hernández (2012) examines Indigenous social movements in Mexico and their efforts to reassert territorial autonomy through an IPE framework grounded in communal resistance, agroecology, and customary law. Quichocho and St. John (2021) interpret the Standing Rock water protectors’ resistance to the Dakota Access Pipeline as a form of “trickster science” — a tactical epistemological hybridity that disrupts settler logic and asserts Indigenous sovereignty through ceremony, media, and spiritual resistance. This work reframes IPE not only as critique but as a generative praxis of survival.

Together, these works affirm that IPE is not a static or homogenous discipline, but a living political project shaped by the plural, place-based realities of Indigenous nations globally — each responding to the ecological and ontological challenges of settler colonialism in their own terms. Collectively, these scholars represent an epistemological shift: from Indigenous Peoples being objects of research to becoming self-determining agents and intellectual architects within political ecology. Their work offers essential tools for confronting climate change, environmental injustice, and the enduring legacies of colonialism through Indigenous resurgence, relational ethics, and transformative governance.

Critical Debates and Emerging Frontiers in Indigenous Political Ecology

The field of IPE is not without its internal tensions and critical debates, particularly concerning the evolving

meanings and uses of concepts such as *Indigeneity* and *Traditional Ecological Knowledge (TEK)*. While these terms are essential for asserting Indigenous rights, relational worldviews, and epistemic authority, their uncritical or overly generalized application can risk romanticism, essentialism, and the erasure of the diversity within and across Indigenous communities (Dove 2006; Whyte 2013). Critically, IPE asserts that the richness and resilience of Indigenous action stems directly from the profound heterogeneity of Indigenous experience. Indigenous communities possess vast cultural, linguistic, and political diversity, resulting in unique legal orders, varied relationships to specific ecological regions, and diverse strategies for engaging with settler-colonial states and non-Indigenous environmental movements (Porter et al. 2017; Snelgrove, Dhamoon, and Cornthassel 2014; Whyte 2018). Scholars have argued that *Indigenous identity* itself can be a product of historical political processes, shaped by confrontation and engagement with external forces, as evidenced by the formation of tribal identities in contemporary Indonesia (Dove 2006; Gonda et al. 2023). The notion of “pure” or “authentic” Indigenous knowledge becomes problematic when it obscures the long histories of interchange, adaptation, and resistance between Indigenous and Western knowledge systems (Arndt 2022; Bocking 2023). Far from being static or untouched, Indigenous knowledge is dynamic and living — formed through both ancestral continuity and creative engagement with external forces, including under conditions of colonial imposition (GEO-7 2025; Gordon et al. 2023; Malik, Ford et al. 2024; Orlove et al. 2023).

Critiques have also highlighted that the concept of “Indigenous Peoples,” while legally and politically powerful, can sometimes be deployed in ways that are overly narrow or exclusionary, potentially obscuring the environmental struggles of other marginalized groups who do not fit within formal definitions of *Indigeneity* (de Mattos Vieira and Viaene 2024; Mackay 2022). The concept can be a “double-edged sword,” leading to external expectations of Indigenous Peoples as inherently conservationist, and potentially disingenuous claims to Indigenous status for political or economic gain (Dove 2006; Thompson 2016). Taken together, these critiques underscore a central tension: while *Indigeneity* and

TEK are vital for political recognition and epistemological justice, their deployment within IPE must remain critical, reflexive, and contextually grounded. Rather than reinforcing essentialist frames, IPE must navigate this terrain by affirming Indigenous self-determination and epistemic sovereignty while also acknowledging internal diversity, historical hybridity, and the strategic use of identity in political and environmental struggles. Such a nuanced and accountable approach ensures that IPE does not fall into the very essentialist and reductive logics it seeks to critique in dominant narratives.

A significant area of contention and development within IPE concerns the internal dynamics and power relations within Indigenous environmental governance. Indigenous communities frequently face considerable challenges when engaging with environmental governance structures, particularly those rooted in Western bureaucratic models, which can inadvertently replicate historical traumas of dispossession and control (Liboiron 2021 (Red River Métis/Michif; Reed and Diver 2023; Snook et al. 2022; Whyte 2018). External power dynamics and deeply embedded institutional biases often relegate Indigenous Peoples to the status of mere “stakeholders” rather than recognizing them as self-determining nations with inherent sovereignty (Tamtik 2024; Von der Porten, de Loë, and Plummer 2015). This often results in the systemic underrepresentation and exclusion of Indigenous worldviews and knowledge systems from critical decision-making processes (Wheeler and Root-Bernstein 2020; Zurba and Papadopoulos 2023). Despite an increased presence in global climate governance forums, the actual political influence of Indigenous Peoples often remains limited, with assertions of Indigenous identities frequently celebrated only when they are ceremonial and devoid of substantive political claims (Moreton-Robinson 2020; Tormos-Aponte 2021; Tuck and Yang 2012).

Indigenous social movements, like all complex political formations, are shaped by internal debates, ideological differences, and leadership tensions, which can present challenges to sustained collective action (Kaufer 2023). These dynamics do not undermine the legitimacy of Indigenous struggles but rather reflect the ongoing work of negotiating diverse interests, historical experiences, and visions for the future (Lupien 2020; Rice 2020). The

persistent challenge of decolonizing governance structures — both within Indigenous communities and in relation to settler institutions — is deeply entangled in these internal complexities, illustrating that decolonization is neither linear nor uncontested. Even when Indigenous knowledge and participation are ostensibly valued, the underlying frameworks of environmental governance often remain colonial, bureaucratic, and hierarchical (Reed and Diver 2023; Smith 2021). This creates a fundamental disconnect where Indigenous self-determination is undermined, and their knowledge is often extracted for external utility rather than genuinely integrated into a shared governance model (Constantinou et al. 2025; McGregor 2021). Consequently, achieving effective Indigenous environmental governance requires not just superficial policy adjustments, but a radical transformation of the power dynamics and institutional biases deeply embedded within existing state and international systems.

Recentring Indigenous legal Orders as Foundational to Environmental Governance

Current approaches to Indigenous environmental engagement predominantly focus on “incorporating” Indigenous knowledge or “consulting” Indigenous Peoples within existing settler-colonial legal and governance frameworks (McGregor 2021). While seemingly inclusive, this approach frequently perpetuates an extractive paradigm, where Indigenous knowledge is selectively utilized for Western utility without fundamentally altering power dynamics or recognizing inherent Indigenous sovereignty (Cannon et al. 2024; McGregor 2021). However, this issue is not confined to settler states alone. In “Global South” contexts, Indigenous Peoples face parallel forms of dispossession and marginalization — often at the hands of domestic states that are distinctly non-Western, whose development agendas similarly rest on logics of land commodification, environmental extraction, and legal erasure (Godek and Kütting 2025; Hesketh 2025; Malik 2022; Malik and Hashmi 2021; Sobeng, Morrissey, and Bloomer 2025; Wani and Malik 2023). These complicate any framing of

dispossession as a purely “Western” phenomenon, instead highlighting the transnational and multiscalar nature of settler-colonial logics and environmental governance regimes.

This article proposes a transformative paradigm shift: instead of merely “including” Indigenous knowledge, environmental governance must be fundamentally recentered on the recognition and resurgence of *Indigenous legal orders* as distinct, robust, and foundational systems for human–environment relations.

Indigenous legal orders — such as the Haudenosaunee Great Law of Peace and the Two Row Wampum, Anishinaabe Nishnaabeg legal traditions, Métis legal orders, Inuit Qaujimajatuqangit (IQ), Aymara and Quechua legal systems and conceptions of *ayllu* in the Andes, Māori tikanga in Aotearoa, the adat legal traditions of Indigenous communities in Indonesia and Malaysia, and customary law frameworks among the Ashanti and Dagomba in Ghana — are not merely collections of “customs” or “beliefs” (Carter, Tagalik, and Ljubicic 2025; Craft et al. 2021; Dubois 2021; Eberts 2021; Mantilla 2022; Mead 2016; Nimoh, Abubakar, and Adu-Gyamfi 2024; Sioui et al. 2022; Zuliya 2021). Rather, they constitute comprehensive, living legal systems that articulate responsibilities, relational ethics, and governance protocols concerning land, water, kinship, and more-than-human beings (Gordon et al. 2023). These legal orders are embedded in specific languages, territories, and cosmologies, and offer sophisticated frameworks for law, justice, and collective decision making that continue to guide communities today. These systems embed a deep understanding of ecological interconnectedness, relational responsibility, and long-term stewardship (Carter, Tagalik, and Ljubicic 2025; Tynan 2021). For example, the Haudenosaunee Kaswentha (Two Row Wampum) is a living treaty grounded in relational diplomacy, mutual respect, and peaceful co-existence. Represented by two parallel paths — one for the Haudenosaunee canoe and the other for the European ship — it affirms noninterference while upholding ongoing responsibilities of cooperation in areas of shared concern, including environmental governance (Coleman, Debicki, and Freeman 2025; Ransom and Ettenger 2001). Far from a static symbol, Kaswentha is a dynamic legal and

ethical framework that demands continual political renewal and engagement. It offers a relational model for intersocietal governance rooted in Haudenosaunee eco-philosophy and intellectual traditions, serving as a foundational source for legal pluralism, ethical protocols, and pathways of environmental resurgence (Sioui et al. 2022; Sultana, Martin-Hill, and Wilson 2023). Similarly, the Nishnaabeg concept of “deep reciprocity” is not just an ethical principle but is embedded within their legal orders, emphasizing mutual responsibility to the land and nonhuman relatives as an alternative to extractive practices (Whetung 2019).

Among Inuit, the legal and ethical framework known as IQ articulates guiding principles such as respect for all living things, consensus-based decision making, and intergenerational knowledge transmission (Akearok, Mearns, and Mike 2023; Karetak, Tester, and Tagalik 2017). These principles structure how Inuit communities engage with their environment and maintain balance in human–nonhuman relations across generations (Sheremata 2018). IQ is not only a knowledge system but also a governance framework grounded in relational accountability, adaptability, and resilience in the face of environmental change (Carter, Tagalik, and Ljubicic 2025). As the impacts of climate change intensify, Indigenous legal orders offer urgently needed alternatives to dominant technocratic responses (Rashidi and Lyons 2022; Tigre 2022). Their holistic and land-based approaches foster adaptive, place-based governance capable of responding to the social, ecological, and spiritual dimensions of the climate crisis (Ford et al. 2020; Malik and Ford 2025b).

Collectively, these Indigenous legal orders move beyond settler-colonial models of environmental management to assert robust, context-specific, and time-tested frameworks for human–environment relations (Whyte 2018; Wilson, Lira, and O’Hanlon 2022). They represent not a return to the past, but a continued enactment of living law that challenges dominant paradigms and offers transformative pathways toward ecological justice and sustainability (Dudgeon et al. 2024; McGregor, Whitaker, and Sritharan 2020).

This recentering necessitates a move toward *legal pluralism*, where Indigenous legal systems operate autonomously and in parallel with, or even as primary to, state legal systems within their respective

territories. This framework does not advocate for the assimilation of Indigenous law into existing state law, but rather for the recognition of the inherent legitimacy and efficacy of Indigenous governance as a distinct and equally valid system. This moves beyond settler-colonial frameworks of environmental management to embrace Indigenous legal orders as robust, time-tested systems for human–environment relations.

To elaborate, this approach involves exploring how specific Indigenous legal principles translate into concrete environmental management practices. For instance, the principle of responsibility to future generations, deeply ingrained in many Indigenous legal orders, could guide long-term resource management decisions in a way that short-term economic gains often preclude (McGregor, Whitaker, and Sritharan 2020; Whyte 2020). The recognition of legal personality for natural entities — as seen in the global “Rights of Nature” movements, which are often inspired by Indigenous worldviews — can be understood as a direct extension of Indigenous legal orders that acknowledge the inherent agency and rights of nonhuman relatives (Knauß 2018; Sakapaji et al. 2024; Tănăsescu 2020). This perspective posits that the current global environmental crisis highlights the limitations of anthropocentric, state-centric legal and governance systems that prioritize economic growth over ecological wellbeing (Droz 2022). Indigenous legal orders, by viewing land as kin and nonhuman entities as having agency and rights, offer a fundamentally different paradigm (Whyte 2020). This implies that these systems are not merely cultural curiosities but represent sophisticated, time-tested blueprints for ecological governance that could provide a more effective and ethical path to planetary sustainability than current dominant models. Their recentering is thus an important pathway for systemic transformation, not just local benefit.

While this article foregrounds common principles found across many Indigenous frameworks, it does not suggest a monolithic or universal Indigenous worldview. On the contrary, Indigenous approaches to governance and human–environment relations are deeply heterogeneous, shaped by distinct histories, cosmologies, legal systems, and ongoing

negotiations with settler-colonial and state structures (Alfred 2009; Napoleon and Friedland 2016). For instance, Anishinaabe concepts of *Mino-bimaadiziwin* (the good life/living in a good way) differ meaningfully from Haudenosaunee governance rooted in the Great Law of Peace, just as Inuit environmental governance draws upon *IQ*, which is distinct from Māori *whakapapa*-based relations to land and water (Alba Reeve 2024; Karetak, Tester, and Tagalik 2017; Mead 2016; Nelson, Jeffrey, and Schnitker 2025). This diversity of governance philosophies and land ethics is a source of epistemic richness, demonstrating that Indigenous political ecologies are not simply reactive but offer plural, place-based alternatives to dominant paradigms of environmental governance. As such, this article does not advance a singular Indigenous model but rather highlights how IPE must remain attentive to the specificity, diversity, and relational grounding of Indigenous knowledge systems in both theory and practice.

Intersectional Pathways: Indigenous Political Ecology in Dialogue With Allied Fields

Decolonization Studies

IPE significantly advances the critique of coloniality by expanding its scope beyond the material dimensions of land dispossession and resource extraction. It exposes coloniality as a persistent ontological and epistemological hierarchy — one that privileges Euro-Western modes of knowing and being while systematically marginalizing or erasing Indigenous worldviews, legal orders, and relational ontologies (Bresnihan and Millner 2022; Olstead and Chattopadhyay 2024). In doing so, IPE challenges the deep-seated structures of epistemic exclusion and civilizational superiority that continue to shape not only environmental governance but also the foundations of contemporary academic inquiry and institutional knowledge production (Schulz 2017). This perspective aligns with decolonization studies by emphasizing epistemic disobedience and “border thinking,” which advocates for moving away from

Eurocentric thought to genuinely engage with and center marginalized ideas and knowledge systems (Hussein 2022; Mignolo 2012). Decolonization, from this viewpoint, is understood not as a historical event but as an ongoing, active process that challenges Western hegemony in knowledge production and actively seeks to recenter non-Western epistemologies (García, Cushman, and Baca 2024; Omodan 2024; Tuck and Yang 2012).

The understanding that coloniality extends beyond historical political control to shape knowledge systems and perceptions of nature implies that environmental problems cannot be fully addressed without decolonizing the very epistemological and ontological frameworks through which they are understood and managed (Escobar 2007; Malik 2026; Mignolo 2013; Sultana 2024). If Western science and governance are fundamentally shaped by colonial logics of extraction and domination, effective and just environmental responses require more than policy reform — they demand a dismantling of these deeply embedded epistemic and ontological structures. Decolonization thus becomes not merely a social justice imperative but a fundamental prerequisite for effective and equitable environmental action.

IPE offers precisely such a paradigm shift — centering Indigenous legal orders, land-based ethics, and relational accountability as the basis for reimagining environmental governance. In doing so, IPE not only critiques colonial frameworks but actively articulates alternative transformative pathways grounded in Indigenous sovereignty, resurgence, and the lived realities of being in reciprocal relation with a sentient and storied world.

Climate Justice

Indigenous climate justice frames climate change and environmental injustices as inextricably tied to, and symptomatic of, ongoing processes of colonialism, dispossession, violence, and human rights violations (Joshi 2021; Newell et al. 2021). This approach advocates for Indigenous leadership and self-determination in climate policy, recognizing the contributions of Indigenous knowledge systems and sustainable livelihoods (Dhillon 2022; Martinez

2018). Indigenous Peoples prioritize a profound responsibility to future generations and advocate for the recognition of the inherent rights of nature, pushing for policies that respect the political agency of non-human relatives (Menziés et al. 2024; Suchet-Pearson et al. 2013). Indigenous climate justice perspectives view climate change not merely as an atmospheric phenomenon or a byproduct of industrial emissions, but as a manifestation of severed relationships and exploitative dynamics produced by colonial, capitalist, and patriarchal systems (Jones, Reid, and Macmillan 2024; Malik and Ford 2025b). This framing exposes the inadequacy of technological fixes or market-based climate solutions, which often perpetuate the very logics of control, extraction, and disposability that underlie the crisis (Gilio-Whitaker 2019; Whyte 2019). Climate justice, from an Indigenous standpoint, necessitates a decolonizing, relational, and ecocentric transformation — one that not only mitigates emissions but restores reciprocal responsibilities and affirms the political agency and inherent value of all human and nonhuman entities (Jones, Reid, and Macmillan 2024).

Such a reframing requires more than institutional reform; it calls for a restructuring of the ontological and epistemological foundations upon which environmental governance is built (Goldman, Turner, and Daly 2018). Within this context, IPE does not merely offer supplementary insights — it reconfigures the terms of engagement by foregrounding Indigenous legal orders, land-based responsibilities, and modes of governance attuned to relational accountability, thus challenging the foundational assumptions of dominant climate discourses.

Environmental Humanities

The environmental humanities, in dialogue with IPE, engage deeply with “enchanted ways of knowing and being-in-the-world” and the crucial role of “mythical narratives” in shaping human–environment relationships (Schulz 2017). This field challenges anthropocentric views and explores the interconnectedness of human and nonhuman entities, valuing Indigenous narratives, art, language, and ritual as potent forms of ecological wisdom and knowledge (Dorji 2019; Farkas 2024).

Western modernity has often “disenchanted” the world, reducing nature to mechanistic materiality and bifurcating human consciousness from the physical world (Jackson 2021; Janković 2024). Environmental humanities, informed by Indigenous thought, offer a pathway to reclaim “enchantment” — not as a return to superstition, but as a critical mode of knowing and being that acknowledges the relational dimensions of the world (Herman 2008; Riley 2023; Wright 2016). This perspective suggests that artistic expressions, storytelling, and ritual are not merely cultural artifacts but vital forms of ecological praxis that can reshape human–environment relationships and foster deeper accountability to the living world (Carey et al. 2013; Middleton 2015).

Critical Development Studies

IPE’s engagement with critical development studies involves a fundamental critique of foundational assumptions of capitalist modernity — particularly the notions of limitless capitalist accumulation, technological supremacy, and anthropocentric mastery over nature, explicitly (Gill 2024; Sultana 2024). It interrogates how dominant development paradigms, rather than delivering progress for all, are rooted in neocolonial logics of appropriation, extractivism, and displacement, disproportionately impacting Indigenous lands and ways of life (Dunlap 2023; Godek and Küting 2025; Helland 2022). IPE foregrounds the structural dependence of technological advancement on global asymmetries, illustrating how such progress is frequently contingent upon the exploitation of cheap racialized labor, the expropriation of natural resources, and the systematic commodification of the environment, leading to escalating environmental degradation and social inequalities globally (Brand et al. 2021; Newell 2005; Ruckstuhl et al. 2022; Shlossberg and Amaya 2024). Through this lens, IPE reframes development not as a neutral or benevolent process, but as a colonial-capitalist project that perpetuates dispossession while concealing its violence behind narratives of innovation, efficiency, and modernization (Malik 2024; Middleton 2015).

Critical development studies align with IPE by challenging market-driven, neoliberal development agendas and advocating for systemic change toward economic and social justice (Veltmeyer and Bowles 2022; Vladoš 2024). It undertakes situated analyses of development projects by mapping the material flows of capital, the geographies of ecological degradation, and the regulatory regimes that authorize exploitation in the name of growth (Peet 2007; Potter, Binns, and Elliott 2008; Ruming, McGuirk, and Mee 2021; Silvey and Rankin 2011). Simpson (2016) articulates that extraction and assimilation go together and colonialism and capitalism are based on extracting and assimilating. This understanding implies that contemporary resource extraction is not merely an economic activity but a direct continuation of colonial violence, dispossessing Indigenous Peoples of their lands, cultures, and even their bodies, which are reduced to mere resources (Butler 2015; Dunlap 2022; Howitt 2002). Therefore, critical development studies, informed by IPE, must move beyond critiques of “unsustainable development” to actively dismantle the underlying colonial-capitalist logic of extractivism, advocating for alternative, nonextractive economies rooted in Indigenous principles of reciprocity. IPE not only exposes the violence embedded within development logics but actively theorizes alternative political and ecological futures beyond the confines of capitalist modernity.

Case studies: Illustrating Indigenous Political Ecology in action and future potential

The geographical scope of IPE research has expanded significantly over time. Historically, political ecology primarily focused on the “Global South,” analyzing environmental struggles in regions impacted by development projects and resource extraction (Blaikie 1985; Wolf 1972). However, contemporary IPE research now spans a global canvas, encompassing diverse regions such as North America, the Amazon, Australia, the Arctic, Asia, and Africa (Andreucci and Zografos 2022; Dunlap, Verweijen, and Tornel 2024; Gandy 2022; Leff 2021; Little 2007; Malik

and Ford 2024b; Malik and Najmul Islam Hashmi 2020; Malik, Ahmed et al. 2024; Martínez-Alier 2021; Simon and Kay 2024; Sultana 2021; Tzaninis et al. 2021). In Southeast Asia, Indonesian Adat forest law resists state demands for formalized land titling, advocating recognition of justice (Murhaini and Achmadi 2021; Peluso and Vandergeest 2001). In Latin America, particularly the Andean regions of Bolivia, Ecuador, and Peru, constitutional reforms since the 1990s have formally recognized Indigenous legal systems as part of plurinational governance structures advocated by Indigenous communities (Postero 2017; Van Cott 2012). African pastoralists, such as Maasai in Kenya and Tanzania, assert their traditional ecological knowledge against exclusionary, colonial-era conservation policies (Homewood, Kristjanson, and Trench 2009; Wily 2011). In Oceania, Aotearoa (New Zealand) showcases radical innovation by granting legal personhood to the Whanganui River in 2017 based on Tikanga Māori kinship responsibilities and ontological understanding of the river as an indivisible and living whole (Kramm 2020).

Studies across these regions consistently demonstrate that Indigenous land use and management practices often lead to significantly lower deforestation rates and more stable forest cover compared to areas managed under private or state control (Alejo et al. 2025; Bennett et al. 2023; Sze et al. 2022; Urzedo and Chatterjee 2022). The strength of Indigenous environmental action, however, does not lie in a single prescribed model, but in the inherent heterogeneity of these localized approaches. This diversity, rooted in thousands of unique cultural, linguistic, and ecological relationships (Bhat and Wadhvani 2024; Ghosh et al. 2021), highlights the adaptability and resilience of Indigenous governance systems in the face of varying colonial pressures and ecological challenges.

While IPE often focuses on specific local contexts and communities, the global prevalence of Indigenous Peoples across countries and the documented successes of their land management practices (Alejo et al. 2025; Dawson et al. 2021; Martínez-Alier 2021; Turner, Cuerrier, and Joseph 2022) suggest that IPE is not a niche field but offers globally relevant insights. This implies that

localized Indigenous approaches to sustainability, rooted in diverse cosmologies, provide a critical counter-narrative and practical alternatives to universalized Western environmental management models, demonstrating that effective environmental solutions are often context-specific and deeply embedded in local sociocultural systems.

Successful Indigenous-Led Stewardship, Care, and Governance Models

(i) *The Land-Back movement*: This movement transcends mere land restitution; it is fundamentally about returning land to Indigenous Peoples to revitalize traditional, sustainable agricultural practices, which are essential for the long-term health of the environment and its natural resources (Corn tassel 2021; Pieratos, Manning, and Tilsen 2021; Racehorse and Hohag 2023; Schneider 2022). This approach contrasts sharply with capitalist and neoliberal models of industrial agriculture that often over-exploits land and causes irreversible environmental damage, and prioritizes profit maximization, monocropping, and export-oriented production at the expense of biodiversity, soil health, and local food sovereignty (Bakker 2010; Bogert et al. 2022; Figueroa-Helland, Thomas, and Aguilera 2018; Whyte 2016). Under neoliberal frameworks, land is treated as a commodity and resource extraction is justified through market efficiency and productivity metrics, leading to the over-exploitation of ecosystems and the displacement of Indigenous stewardship (Murrey and Mollett 2023). Land-Back thus represents not only a call for territorial justice, but a systemic rejection of the extractivist logics embedded in contemporary agribusiness and a reassertion of relational, reciprocal, and community-based modes of living with the land.

(ii) *Co-management initiatives*: Collaborative partnerships between Indigenous Peoples and non-Indigenous scientists or government bodies have proven effective in environmental restoration globally (Roos 2024; Thompson, Lantz, and Ban 2020; Von der Porten, de Loë, and Plummer 2015; Walker, Wilcox, and Awatere 2025). In India, local Indigenous communities in the Dering-Dibru

Saikhowa Elephant Corridor have worked with ecologists to restore degraded forest habitats using traditional ecological knowledge of native tree species. Their understanding of species like *Phyllanthus emblica* and *Syzygium cumini* — valued for both ecological and livelihood benefits — has guided scientifically informed reforestation strategies (Haq et al. 2023). In California, USA, Indigenous Peoples of Karuk and Yurok have collaborated with federal agencies to reintroduce traditional fire stewardship practices, enhancing forest health and reducing wildfire risks while restoring cultural landscapes (Long, Goode, and Lake 2020). Similarly, the Heiltsuk (Haítzaqv) M̓núxw?it (to become one) model exemplifies centering Indigenous knowledge and governance in integrated resource management in which Indigenous communities and governments lead the overall direction, Indigenous knowledge systems are foundational, local protocols are followed, benefits flow at least as much to communities as to collaborators, and collaborations are authentic and transparent (White et al. 2024).

Globally, co-management systems have emerged as negotiated agreements designed to share responsibilities among Indigenous Peoples and state governments for the management of fish and wildlife. Co-management practitioners and policies regularly make decisions that influence the ways in which Indigenous Peoples interact with the lands, waters, and natural resources (Snook et al. 2022). In the Arctic, Inuit-led co-management regimes — such as those governing Narwhal and Beluga whale populations in the Canadian Arctic — reflect the application of IQ alongside Western conservation science (Dale 2009; Keenan, Fanning, and Milley 2018). These initiatives reject top-down, technocratic models in favor of relational and community-based stewardship, rooted in generations of observation and ethical hunting practices.

These cases not only demonstrate successful models of collaborative environmental governance but also challenge the dominant neoliberal conservation approaches that reduce ecological responsibility to metrics, commodification, colonial-state environmental governance, and capitalist development priorities. Co-management, when genuinely grounded in Indigenous sovereignty and

epistemologies, becomes a site of decolonizing praxis, offering viable alternatives to the extractivist and market-driven logics of mainstream environmental management.

(iii) *Indigenous Ranger Programs*: Indigenous ranger programs are collaborative initiatives that enable Indigenous Peoples to exercise responsibilities of care, stewardship, and custodianship over their ancestral lands and waters (Reed et al. 2021; Wilson et al. 2018). While often framed in policy as conservation, these programs are more accurately understood as relational governance practices rooted in Indigenous legal orders and ethical obligations to land, water, and more-than-human kin. By bringing together Traditional Ecological Knowledge and scientific methods, ranger programs generate important ecological, cultural, social, and economic outcome (Hill et al. 2012; VijayKumar 2019). They play a vital role in community development, intergenerational knowledge transfer, cultural resurgence, employment, and restoring relationships disrupted by colonization (Robinson et al. 2022; Smith, Diver, and Reed 2023; Williams 2024). Indigenous ranger programs also reframe environmental labor, not as extractive or commodified, but as relational work grounded in custodianship, reciprocity, and care for more-than-human kin (Fisk et al. 2025; Reed et al. 2021). Rather than being conservation “tools,” they represent living expressions of Indigenous resurgence and land-based self-determination.

Globally, such initiatives demonstrate how Indigenous environmental governance operates outside the confines of market-based paradigms. In Australia, Indigenous ranger programs are important for environmental governance and managing land (Campion et al. 2023). They play a vital role in cultural burning and fire management in desert and savannah regions, monitoring biodiversity, and controlling invasive species such as feral camels, cats, and buffel grass (Morgan et al. 2020; Rawluk et al. 2023). In the Canadian Arctic, Inuit Guardians programs — such as those established through the Inuit Impact and Benefit Agreements related to mining projects — have enabled communities to monitor environmental impacts on sea ice, caribou, and marine mammals, using IQ in conjunction with Western scientific tools like GIS and satellite imaging (Houde et al. 2022;

Iravani et al. 2025; Karetak, Tester, and Tagalik 2017; Malik and Ford 2025a; Malik, Ahmed et al. 2025; van Luijk et al. 2021). These efforts not only challenge the epistemic authority of colonial science but assert Inuit jurisdiction over their homelands, reframing environmental monitoring as a form of self-determination and governance.

In South America, the Territorial Monitoring Teams of the Waorani and Kichwa Peoples in the Amazon exemplify Indigenous-led forest protection. These ranger-like groups use GPS tracking and drone technologies to document illegal logging and oil extraction, defending ancestral territories against incursions while simultaneously enacting Indigenous legal orders and cosmologies that view forests as sentient, relational beings (Etchart 2022; High 2025; Noroña and Aguinda 2025).

These programs not only contribute to ecological health but also reinforce Indigenous cultural identity and connection to Country, demonstrating a holistic approach to land management (Gordon et al. 2023; Turner, Cuerrier, and Joseph 2022). Critically, these initiatives challenge neoliberal conservation paradigms, which often frame land management in technocratic, depersonalized terms (Vuola 2022; Youdelis et al. 2021). Instead, ranger programs operate through a relational accountability framework, where governance emerges from responsibilities to Country, rather than state mandates or market logics (Bellchambers 2023; Reed et al. 2021). As such, they exemplify decolonizing climate action, offering models for just environmental futures that center Indigenous sovereignty, self-determination, and ontological pluralism.

(iv) *Community-led environmental justice initiatives*: Community-led environmental justice initiatives are vital for confronting the structural roots of ecological degradation and social inequality (Nesmith et al. 2021). Unlike top-down approaches that often marginalize local voices, these initiatives emerge from the lived experiences, knowledges, and governance systems of those most directly impacted by environmental harm (Parsons et al. 2025; Rahman et al. 2023; Reed and Rudman 2023). They prioritize self-determination, relational accountability, and place-based ethics, offering not only resistance to exploitative development but also alternative visions for just and sustainable

futures (Diver, Vaughan, and Baker-Medard 2024; Tomateo and Grabowski 2024). Globally, Indigenous Peoples constitute only 5% of the world's population and manage 20% of the Earth's surface yet live within the areas that contain 80% of the world's remaining biodiversity and contribute significantly to biodiversity protection, often through relational practices deeply rooted in place-based knowledge systems (Nelson and Reed 2025).

The struggle of the Standing Rock Sioux Tribe against the Dakota Access Pipeline in the United States due to concerns about potential water contamination and the desecration of sacred sites exemplifies a powerful Indigenous community-led environmental justice initiative (Meehan et al. 2023; Todrys 2021; Whyte 2017b). This movement highlighted the critical importance of Indigenous knowledge and direct participation in environmental decision making, demonstrating that resistance can be a powerful force for environmental protection and cultural preservation (Bondi and Horowitz 2024; Grote and Johnson 2021; Quichocho and St. John 2021). Far from a single-issue protest, the movement articulated a comprehensive critique of settler-colonial extraction, corporate-state alliances, and the ongoing dispossession of Indigenous land and water rights (Estes 2024; Kojola 2021; Whyte 2017b). The chant “Mni Wiconi” (Water is Life) encapsulated a worldview grounded in relational responsibility to water as a living being, not merely a resource (Jewett and Garavan 2019).

In Ecuador, the Confederation of Indigenous Nationalities of the Ecuadorian Amazon (CONFENIAE) has led direct actions against oil drilling in the Yasuni National Park, defending Indigenous territories and biodiversity from extractive incursions (Bernal 2021; Prime 2024). In India, the Dongria Kondh's resistance to Vedanta's bauxite mining on the Niyamgiri Hills exemplifies an Indigenous cosmology in which mountains are sacred kin and land cannot be commodified. Their victory in halting the mine was a rare example of state recognition of Indigenous environmental authority, following sustained community-led advocacy and legal action (Borde and Bluemling 2021; Marshall and Balaton-Chrimes 2016; Pandey 2018).

The success stories of Indigenous-led environmental stewardship often stem from a fundamental

difference in approach: they are not merely “best practices” to be adopted by external agencies, but expressions of inherent Indigenous sovereignty, land-based relationality, and self-determination (Buschman 2021; Von der Porten, de Loë, and Plummer 2015). The variability in these models (from localized Heiltsuk governance to global Amazonian advocacy) underscores the strategic heterogeneity of Indigenous actions, which are tailored to specific territories, unique legal traditions, and distinct relationships with non-Indigenous powers. Importantly, these are not uniform in design.

Indigenous land-based practices that are often framed by external actors as “successful conservation” initiatives (Dawson et al. 2024; Tran, Ban, and Bhattacharyya 2020) are, in fact, deeply rooted in legal, ethical, and cosmological traditions of relational care, kinship, and stewardship. These practices are not primarily motivated by the instrumental logic of conservation as understood within dominant environmental discourse — focused on preservation, biodiversity targets, or resource management — but emerge from responsibilities to maintain reciprocal relationships with land, water, and more-than-human beings.

The diversity of Indigenous environmental governance — from the Heiltsuk Nation's *M̓n̓úxv̓it* governance framework in British Columbia, to Māori Whanganui River legal personhood model in Aotearoa New Zealand, and the Mapuche struggle for land restitution and ecological protection in Chile — reflects a deeply rooted strategic heterogeneity (Arias-Bustamante 2022; Cribb, Macpherson, and Borchgrevink 2024; White et al. 2024). For instance, Adivasi forest stewardship in India, underpinned by customary tenure and spiritual relationships with forest, differs significantly from Ogiek legal efforts in Kenya to protect the Mau Forest based on ancestral land claims (Claridge and Kobei 2023; Dubey and Saxena 2023; Kapoor 2010). Similarly, Dayak communities in Indonesia maintain adat (customary) laws that govern rotational farming, fire use, and watershed management, resisting top-down conservation models that criminalize traditional practices (Murhaini and Achmadi 2021). These examples are not isolated — they reflect a plurality of Indigenous philosophies and legal traditions, grounded in distinct relationships

to land, colonial histories, and state structures (both Western and non-Western). Recognizing this heterogeneity is essential not only to avoid homogenization, but to advance the intellectual and political richness of IPE as a field that prioritizes relational governance, plural ontologies, and land-based resurgence.

This implies that effective environmental governance with Indigenous Peoples requires a paradigm shift from “incorporating” their knowledge into existing frameworks to recognizing them as self-determining nations with their own legitimate governance systems (Reed and Diver 2023). Across these struggles, community-led initiatives assert that environmental justice cannot be achieved through technocratic or state-centered mechanisms alone. Instead, they foreground place-based knowledges, collective memory, and embodied resistance as essential to defending lands and waters from capitalist exploitation and settler colonialism (Datta, Chapola, and Acharibasam 2024; Hanazaki 2024; Whyte 2018).

Challenges and Opportunities in Urban Indigenous Communities

While much of IPE research has historically focused on traditional territories, a growing body of scholarship addresses the complexities of IPE in urban settings (Walker, Wilcox, and Awatere 2025). Urban political ecology understands urbanization as a political, economic, social, and ecological process that often results in highly uneven and inequitable landscapes, explicitly rejecting the false dichotomy between nature and society (Gandy 2022; Tzaninis et al. 2021). Urban political ecology increasingly engages with how race, postcolonial conditions, and Indigeneity shape these uneven urban natures, recognizing that cities are not antithetical to nature but rather a “second nature” (Anthias and Asher 2024; Simpson and Bagelman 2020).

Urban Indigenous communities often experience significant environmental injustices, including disproportionate exposure to pollution, inadequate housing and infrastructure, and restricted access to traditional lands, food sources, and cultural practices within urbanized landscapes (Nurse-Bray,

Parsons, and Gienger 2022b; Skinner, Pratley, and Burnett 2016; Whyte 2018). These injustices are compounded by colonial planning regimes that continue to render Indigenous presence in cities invisible, while appropriating Indigenous aesthetics and land for development (Howard-Wagner 2020; Parsons and Fisher 2022; Wyly 2024). These conditions reflect the broader dynamics of urban colonialism, where environmental harm and cultural erasure intersect as structural forms of dispossession.

Despite these challenges, urban spaces are emerging as crucial sites for Indigenous resurgence and the reassertion of relationality. Opportunities exist in recognizing and supporting Indigenous ecologies that are tied to language, culture, and land rights, even within urban environments (Turner, Cuerrier, and Joseph 2022; Walker, Wilcox, and Awatere 2025). Collaborative research initiatives that genuinely benefit urban Indigenous communities and respect their protocols are vital for addressing these challenges. The growing body of work on urban IPE highlights that Indigenous relationships to land and environment are not confined to rural or remote areas (Tzaninis et al. 2021). The acts of everyday resurgence challenge the binary between “urban” and “traditional,” demonstrating that relationality and Indigenous nationhood are not confined to rural or remote geographies but are being rearticulated within the very fabric of settler cities. This reveals that urban environments are not outside Indigenous geographies, but are increasingly vital terrains for asserting presence, governance, and ecological responsibility on Indigenous terms. This opens new avenues for IPE to explore how Indigenous communities navigate and transform colonial and neoliberal urban landscapes, asserting sovereignty and environmental justice in highly complex and hybridized contexts.

Conclusion

IPE’s implications for future interdisciplinary research, policy development, and grassroots activism are profound. In research, there is an urgent call for more Indigenous-led, co-produced, and community-driven studies that prioritize Indigenous ontologies and methodologies, actively moving away from extractive

research practices. This necessitates genuine interdisciplinary collaboration that integrates diverse knowledge systems on equitable terms. For policy, a fundamental shift is required to recognize Indigenous sovereignty, embrace legal pluralism, and acknowledge the inherent rights of nature. This calls for establishing mechanisms for direct Indigenous participation and leadership in environmental decision making at all scales, from local to global. In terms of activism, Indigenous social movements and Land-Back initiatives remain crucial sites of resistance and innovation, demonstrating viable alternative pathways to environmental justice and sustainable futures. Addressing the escalating socioecological crisis necessitates a fundamental paradigm shift away from the colonial-capitalist logics of domination and extraction. This requires a societal transformation toward Indigenous principles of relationality, reciprocity, and responsibility. This implies a re-evaluation of societal values, a restructuring of legal systems to recognize the inherent rights of all beings, and a reimagining of economic structures to prioritize ecological wellbeing over capitalist accumulation.

ORCID iD

Ishfaq Hussain Malik  <https://orcid.org/0000-0002-5832-5276>

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study was funded by ERC Advanced Grant (via the UKRI Horizon Europe guarantee scheme, EPSRC grant# EP/Z533385/1) and Foreign, Commonwealth & Development Office and NERC Arctic Office (TRAILS Project).

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

References

- Acuña, R. M. 2015. "The Politics of Extractive Governance: Indigenous Peoples and Socio-Environmental Conflicts." *The Extractive Industries and Society* 2 (1): 85–92. <https://doi.org/10.1016/j.exis.2014.11.007>
- Ajitha, S., K. J. Reshma, and S. Huxley 2025. "Indigenous Knowledge and Sustainable Development: Bridging Traditional Practices with Modern Climate Solutions." In *Community Climate Justice and Sustainable Development*, 147–80. Hershey, Pennsylvania, United States: IGI Global Scientific Publishing.
- Akearok, G. K. H., C. L. Mearns, and N. E. Mike 2023. "The Inuit Qaujimagatuqangit Health System." *Études Inuit Studies* 47 (1/2): 427–46. <https://doi.org/10.7202/1113399ar>
- Alba Reeve, K. 2024. "Between Empire and State: Haudenosaunee Sovereignty at the League of Nations." *Law and History Review* 42 (3): 499–520. <https://doi.org/10.1017/S073824802400004X>.
- Alejo, C., M. Ortega, B. Leung, O. T. Coomes, and C. Potvin 2025. "Diverse Values Regarding Nature are Related to Stable Forests: The Case of Indigenous Lands in Panama." *Ecology and Society* 30 (1): 1–21. <https://doi.org/10.5751/ES-15540-300124>
- Alfred, T. 2009. *Wasáse: Indigenous Pathways of Action and Freedom*, 313.
- Andreucci, D., and C. Zografos 2022. "Between Improvement and Sacrifice: Othering and the (Bio) Political Ecology of Climate Change." *Political Geography* 92: 102512. <https://doi.org/10.1016/j.polgeo.2021.102512>
- Anthias, P., and K. Asher 2024. "Indigenous Natures and the Anthropocene: Racial Capitalism, Violent Materialities, and the Colonial Politics of Representation." *Antipode* 58 (1): e13078. <https://doi.org/10.1111/anti.13078>
- Arias-Bustamante, J. 2022. *Restitution of Mapuche Lands: Challenges and Enabling Conditions for Adaptation to a Changing Context*. <https://doi.org/10.14288/1.0421788>.
- Arndt, G. 2022. "The Indian's White Man: Indigenous Knowledge, Mutual Understanding, and the Politics of Indigenous Reason." *Current Anthropology* 63 (1): 10–30. <https://doi.org/10.1086/719380>

- Awâsis, S. 2020. "'Anishinaabe Time': Temporalities and Impact Assessment in Pipeline Reviews." *Journal of Political Ecology* 27 (1): 830–52. <https://doi.org/10.2458/V27I1.23236>.
- Bakker, K. 2010. "The Limits of 'Neoliberal Natures': Debating Green Neoliberalism." *Progress in Human Geography* 34 (6): 715–35. <https://doi.org/10.1177/0309132510376849>.
- Beckett, R. C., and A. O'Loughlin 2024. "The Utility of Indigenous Knowledge in the Pursuit of a UN Sustainable Development Goal." *Collective Intelligence* 3 (2): 26339137241241296. <https://doi.org/10.1177/26339137241241295>
- Bellchambers, K. 2023. *Governing Country: A Literature Review of Indigenous Governance Principles in Indigenous Ranger Groups & Indigenous Protected Areas*.
- Bennett, A., A. Larson, A. Z. Ríos, I. Monterroso, and G. Sheila 2023. "Forty-year Multi-Scale Land Cover Change and Political Ecology Data Reveal a Dynamic and Regenerative Process of Forests in Peruvian Indigenous Territories." *Global Environmental Change* 81: 102695. <https://doi.org/10.1016/j.gloenvcha.2023.102695>
- Berkes, F. 2017. "Sacred Ecology: Fourth Edition." *Sacred Ecology: Fourth Edition*, 1–368. <https://doi.org/10.4324/9781315114644>.
- Bernal, A. M. 2021. "Ecuador's Dual Populisms: Neocolonial Extractivism, Violence and Indigenous Resistance." *Thesis Eleven* 164 (1): 9–36. <https://doi.org/10.1177/072551362111025220>
- Bhat, M. A., and P. G. Wadhwani 2024. "Emerging Need to Sustain and Preserve the Traditional Knowledge of Indigenous Communities to Combat Climate Change." *Sustainable Development Goals Series, Part F2922 Volume F2922*: 189–95. https://doi.org/10.1007/978-3-031-55821-4_13
- Blaikie, P. 1985. *The Political Economy of Soil Erosion in Developing Countries*. London, UK: Longman.
- Blaser, M. 2009. "The Threat of the Yrmo: The Political Ontology of a Sustainable Hunting Program." *American Anthropologist* 111 (1): 10–20. <https://doi.org/10.1111/J.1548-1433.2009.01073.X;PAGE:STRONG:ARTICLE/CHAPTER>.
- Bocking, S. 2023. "Indigenous Knowledge and Perspectives." In *Handbook of the Historiography of the Earth and Environmental Sciences*, 1–24. Cham, Switzerland: Springer.
- Bogert, J. M., J. Ellers, S. Lewandowsky, M. M. Balgopal, and J. A. Harvey 2022. "Reviewing the Relationship Between Neoliberal Societies and Nature: Implications of the Industrialized Dominant Social Paradigm for a Sustainable Future." *Ecology and Society: A Journal of Integrative Science for Resilience and Sustainability* 27 (2): 7. <https://doi.org/10.5751/ES-13134-270207>
- Bondi, B., and L. S. Horowitz 2024. "Scope-shifting: Bureaucracy, Energy Justice and the Dakota Access Pipeline." *Environment and Planning E: Nature and Space* 7 (2): 742–64. <https://doi.org/10.1177/25148486231192096>
- Borde, R., and B. Bluemling 2021. "Representing Indigenous Sacred Land: The Case of the Niyamgiri Movement in India." *Capitalism Nature Socialism* 32 (1): 68–87. <https://doi.org/10.1080/10455752.2020.1730417>
- Borrows, J. 2010. *Canada's Indigenous Constitution*. Toronto, ON: University of Toronto Press.
- Brand, U., B. Muraca, É. Pineault, M. Sahakian, A. Schaffartzik, A. Novy, C. Streissler, H. Haberl, V. Asara, and K. Dietz 2021. "From Planetary to Societal Boundaries: An Argument for Collectively Defined Self-Limitation." *Sustainability: Science, Practice and Policy* 17 (1): 264–91. <https://doi.org/10.1080/15487733.2021.1940754>
- Bresnihan, P., and N. Millner 2022. "Decolonising Environmental Politics." In *Handbook of Critical Environmental Politics*, 521–39. Cheltenham, UK: Edward Elgar Publishing.
- Buschman, V. Q. 2021. *Indigenous Contributions to Arctic Biodiversity Conservation*. Seattle, WA: University of Washington.
- Butler, P. 2015. *Colonial Extractions: Race and Canadian Mining in Contemporary Africa*. Toronto, ON: University of Toronto Press.
- Cajete, G. 2000. "Native Science: Natural Laws of Interdependence." (*No Title*).
- Campion, O. B., M. Djarrbal, C. Ramandjarri, G. W. Malibirr, P. Djigirr, M. Dalparri, D. Djanbadi, R. Malibirr, M. Malibirr, and E. Munuygu 2023. "Monitoring and Evaluation of Indigenous Land and Sea Management: An Indigenous-led Approach in the Arafura Swamp, Northern Australia." *Ecological*

- Management & Restoration* 24 (2–3): 75–88. <https://doi.org/10.1111/emr.12586>
- Cannon, S. E., J. W. Moore, M. S. Adams, T. Degai, E. Griggs, J. Griggs, T. Marsden, A. J. Reid, N. Sainsbury, and K. M. Stirling 2024. “Taking Care of Knowledge, Taking Care of Salmon: Towards Indigenous Data Sovereignty in an Era of Climate Change and Cumulative Effects.” *FACETS* 9: 1–21. <https://doi.org/10.1139/facets-2023-0135>
- Carey, J., J. J. Cohen, K. M. Faull, T. Maran, D. Moran, M. Oleksa, C. Radding, S. Reese, K. W. Shanley, and C. Wolfe 2013. *Re-imagining Nature: Environmental Humanities and Ecosocialities*. Lewisburg, PA: Bucknell University Press.
- Carroll, C. 2014a. “Native Enclosures: Tribal National Parks and the Progressive Politics of Environmental Stewardship in Indian Country.” *Geoforum; Journal of Physical, Human, and Regional Geosciences* 53: 31–40. <https://doi.org/10.1016/J.GEOFORUM.2014.02.003>.
- Carroll, C. 2014b. “Shaping New Homelands: Environmental Production, Natural Resource Management, and the Dynamics of Indigenous State Practice in the Cherokee Nation.” *Ethnohistory (Columbus, Ohio)* 61 (1): 123–47. <https://doi.org/10.1215/00141801-2376105>.
- Carter, N. A., S. Tagalik, and G. Ljubicic 2025. “Applying the Aajiiqatigiingniq Research Methodology: Approaches and Lessons Learned Through Collaborative Survey Development and Analysis.” *Arctic Science* 11: 1–33. <https://doi.org/10.1139/as-2023-0057>
- Chandler, D., and J. Reid 2019. *Becoming Indigenous: Governing Imaginaries in the Anthropocene*. Lanham, MD: Rowman & Littlefield.
- Claridge, L., and D. Kobei 2023. “Protected Areas, Indigenous Rights and Land Restitution: The Ogiek Judgment of the African Court of Human and Peoples’ Rights and Community Land Protection in Kenya.” *Oryx* 57 (3): 313–24. <https://doi.org/10.1017/S0030605322000989>.
- Coleman, D., K. Debicki, and B. M. Freeman 2025. *Deoyohahá:ge : Sharing the River of Life*, 308.
- Constantinou, C. M., F. McConnell, D. Dirik, A. Regassa, S. Loong, and R. Kuokkanen 2025. “Reimagining Self-Determination: Relational, Decolonial, and Intersectional Perspectives.” *Political Geography* 118: 103112. <https://doi.org/10.1016/j.polgeo.2024.103112>
- Coombes, B., J. T. Johnson, and R. Howitt 2012. “Indigenous Geographies I: Mere Resource Conflicts? The Complexities in Indigenous Land and Environmental Claims.” *Progress in Human Geography* 36 (6): 810–21. <https://doi.org/10.1177/0309132511431410;JOURNAL:JOURNAL:PHGB>.
- Coombes, B., J. T. Johnson, and R. Howitt 2013. “Indigenous Geographies II: The Aspirational Spaces in Postcolonial Politics - Reconciliation, Belonging and Social Provision.” *Progress in Human Geography* 37 (5): 691–700. <https://doi.org/10.1177/0309132512469590>.
- Corntassel, J. 2021. “Indigenous Laws on Indigenous Lands: Land Back as Community Resurgence.” *Rooted: An Indigenous Law Publication* 1 (2): 15–23. https://indigenoulawassociationatmcgill.wordpress.com/wp-content/uploads/2021/07/rooted_land-back_full-issue.pdf
- Correia, J. E. 2024. “Land Matters: How Indigenous Land Restitution can Inform Loss and Damage Policy and Chart a Path Toward an Otherwise Climate Justice.” *Climate and Development* 16 (9): 811–25. <https://doi.org/10.1080/17565529.2024.2378027>
- Craft, A., D. McGregor, R. Seymour-Hourie, and S. Chiblow 2021. “Decolonizing Anishinaabe Nibi Inaakonigewin and Gikendaasowin Research: Reinscribing Anishinaabe Approaches to Law and Knowledge.” In *Decolonizing Law*, 17–33. Routledge.
- Cribb, M., E. Macpherson, and A. Borchgrevink 2024. “Beyond Legal Personhood for the Whanganui River: Collaboration and Pluralism in Implementing the Te Awa Tupua Act.” *International Journal of Human Rights* 28: 1475–1504. <https://doi.org/10.1080/13642987.2024.2314532;JOURNAL:JOURNAL:FJHR20;WGROU:STRING:PUBLICATION>
- Dale, A. T. 2009. *Inuit Qaujimaqatigangit and Adaptive Co-management: A Case Study of Narwhal Co-Management in Arctic Bay, Nunavut*.
- Das, A., N. Gujre, R. J. Devi, and S. Mitra 2023. “A Review on Traditional Ecological Knowledge and its Role in Natural Resources Management: North East India, a Cultural Paradise.” *Environmental Management* 72 (1): 113–34. <https://doi.org/10.1007/s00267-021-01554-y>

- Datta, R., J. Chapola, and J. B. Acharibasam 2024. *Indigenous Land-based Knowledge and Sustainability: Settler Colonialism and the Environmental Crisis*. London, UK: Taylor & Francis.
- Dawson, N. M., B. Coolsaet, A. Bhardwaj, F. Booker, D. Brown, B. Lliso, J. Loos, A. Martin, M. Oliva, U. Pascual, P. Sherpa, and T. Worsdell 2024. "Is it Just Conservation? A Typology of Indigenous Peoples' and Local Communities' Roles in Conserving Biodiversity." *One Earth* 7 (6): 1007–21. <https://doi.org/10.1016/j.ONEEAR.2024.05.001>.
- Dawson, N. M., B. Coolsaet, E. J. Sterling, R. Loveridge, N. D. Gross-Camp, S. Wongbusarakum, K. K. Sangha, L. M. Scherl, H. P. Phan, and N. Zafra-Calvo 2021. "The Role of Indigenous Peoples and Local Communities in Effective and Equitable Conservation." *Ecology and Society* 26 (3): 19. <https://doi.org/10.5751/ES-12625-260319>
- de Mattos Vieira, M. A. R., and L. Viaene 2024. "Indigenous Peoples' Rights at the United Nations Human Rights Council: Colliding (Mis) Understandings?." *Journal of Human Rights Practice* 16 (2): 512–32. <https://doi.org/10.1093/jhuman/huad074>
- Dhillon, J. 2022. *Indigenous Resurgence: Decolonization and Movements for Environmental Justice*. Brooklyn, NY: Berghahn Books.
- Diver, S., M. Vaughan, and M. Baker-Medard 2024. "Collaborative Care in Environmental Governance: Restoring Reciprocal Relations and Community Self-determination." *Ecology and Society* 29 (1): 1–25. <https://doi.org/10.5751/ES-14488-290107>
- Dorji, T. 2019. "Environmental Humanities in the Anthropocene: A New Paradigm." *Rig Tshoel-Research Journal of the Royal Thimphu College* 2 (1): 100–111. <https://www.rtc.bt/rightshoel/Rig-Tshoel-2019-Vol-2-No-I.pdf#page=102>
- Dovchin, S., U. Dovchin, and G. Gower 2024. "The Discourse of the Anthropocene and Posthumanism: Indigenous Peoples and Local Communities." *Ethnicities* 24 (4): 521–35. <https://doi.org/10.1177/14687968231219778>. SAGE Publications Sage UK: London, England
- Dove, M. R. 2006. "Indigenous People and Environmental Politics." *Annual Review of Anthropology* 35 (1): 191–208. <https://doi.org/10.1146/annurev.anthro.35.081705.123235>
- Droz, L. 2022. "Anthropocentrism as the Scapegoat of the Environmental Crisis: A Review." *Ethics in Science and Environmental Politics* 22: 25–49. <https://doi.org/10.3354/esep00200>
- Dubey, S., and A. Saxena 2023. "Adivasi and Forest Feminism: The Path to Just Transitions Through the Forest Rights Act." *Taylorfrancis.Com* 1: 122–140. <https://doi.org/10.4324/9781003048374-9/ADIVASI-FOREST-FEMINISM-SANGHAMITRA-DUBEY-ASTHA-SAXENA>
- Dubois, J. 2021. "What's the Deal? Canada's Constitutional Relationship with the Métis Nation." *Constitutional Politics in Multinational Democracies* 5: 23. <https://doi.org/10.1515/9780228007456>
- Dudgeon, P., A. Bray, R. Walker, M. Wright, and S. Sutherland 2024. "Caring for Country: Indigenous Well-being, Law, and Environmental Justice." In *Climate Change and Mental Health Equity*, 383–407. Cham, Switzerland: Springer.
- Dunlap, A. 2022. "The Politics of Ecocide, Genocide and Megaprojects: Interrogating Natural Resource Extraction, Identity and the Normalization of Erasure." In *The Genocide-Ecocide Nexus*, 57–80. London, UK: Routledge.
- Dunlap, A. 2023. "The Structures of Conquest: Debating Extractivism (s), Infrastructures and Environmental Justice for Advancing Post-Development Pathways." *International Development Policy/ Revue Internationale de Politique de Développement* 16 (16): 1–25. <https://doi.org/10.4000/poldev.5355>
- Dunlap, A., J. Verweijen, and C. Tornel 2024. "The Political Ecologies of "Green" Extractivism (s): An Introduction." *Journal of Political Ecology* 31 (1): 436–63. <https://doi.org/10.2458/jpe.6131>
- Eberts, M. 2021. "Not Empty of Laws: Indigenous Legal Orders and the Canadian State." In *Decolonizing Law*, 196–214. London, UK: Routledge.
- Elias, M., D. Joshi, and R. Meinzen-Dick 2021. "Restoration for Whom, by Whom? A Feminist Political Ecology of Restoration." *Ecological Restoration* 39 (1–2): 3–15. DOI: <https://doi.org/10.3368/er.39.1-2.3>
- Escobar, A. 2007. "Worlds and Knowledges Otherwise: The Latin American Modernity/Coloniality Research Program." *Cultural Studies* 21 (2–3): 179–210. <https://doi.org/10.1080/09502380601162506>
- Estes, N. 2024. *Our History is the Future: Standing Rock Versus the Dakota Access Pipeline, and the Long*

- Tradition of Indigenous Resistance*. Chicago, IL: Haymarket Books.
- Echart, L. 2022. "Indigenous Peoples and International Law in the Ecuadorian Amazon." *Laws* 11 (4): 55. <https://doi.org/10.3390/laws11040055>
- Farkas, J. 2024. *Environmental Questions, Community Responses: Environmental Humanities Reader*.
- Farrell, J., P. B. Burow, K. McConnell, J. Bayham, K. Whyte, and G. Koss 2021. "Effects of Land Dispossession and Forced Migration on Indigenous Peoples in North America." *Science* 374 (6567): eabe4943. <https://doi.org/10.1126/science.abe4943>
- Fernández-Llamazares, Á, M. Garteizgogeoascoa, N. Basu, E. S. Brondizio, M. Cabeza, J. Martínez-Alier, P. McElwee, and V. Reyes-García 2020. "A State-of-the-art Review of Indigenous Peoples and Environmental Pollution." *Integrated Environmental Assessment and Management* 16 (3): 324–41. <https://doi.org/10.1002/ieam.4239>
- Figueroa-Helland, L., C. Thomas, and A. P. Aguilar 2018. "Decolonizing Food Systems: Food Sovereignty, Indigenous Revitalization, and Agroecology as Counter-Hegemonic Movements." *Perspectives on Global Development and Technology* 17 (1–2): 173–201. <https://doi.org/10.1163/15691497-12341473>
- Fisk, J. J., R. E. W. Berl, J. Long, L. Jacobs, L. van Eeden, M. M. Adams, Á Fernández-Llamazares, J. Murphy, M. Gavin, and C. K. Williams 2025. "Cultivating Reciprocity and Supporting Indigenous Lifeways Through the Cultural Transformation of Natural Resource Management in North America." *People and Nature* 7 (5): 1171–84. <https://doi.org/10.1002/pan3.70056>
- Fitz-Henry, E. 2021. "Indigenous Peoples and Neo-Extractivism in Latin America." In *The Palgrave Encyclopedia of Imperialism and Anti-Imperialism*, 1342–50. Cham, Switzerland: Springer.
- Folke, C., S. Polasky, J. Rockström, V. Galaz, F. Westley, M. Lamont, M. Scheffer, H. Österblom, S. R. Carpenter, and F. S. Chapin III. 2021. "Our Future in the Anthropocene Biosphere." *Ambio* 50 (4): 834–69. <https://doi.org/10.1007/s13280-021-01544-8>
- Ford, J. D., N. King, E. K. Galappaththi, T. Pearce, G. McDowell, and S. L. Harper 2020. "The Resilience of Indigenous Peoples to Environmental Change." *One Earth* 2 (6): 532–43. <https://doi.org/10.1016/j.oneear.2020.05.014>.
- Gandy, M. 2022. "Urban Political Ecology: A Critical Reconfiguration." *Progress in Human Geography* 46 (1): 21–43. <https://doi.org/10.1177/030913252111040553>
- García, R., E. Cushman, and D. Baca 2024. *Pluriversal Literacies: Tools for Perseverance and Livable Futures*. Pittsburgh, PA: University of Pittsburgh Press.
- GEO-7. 2025. *Indigenous Knowledge and Local Knowledge Dialogues Global Environment Outlook 7 (GEO-7)*. <https://copitarxiv.fisica.unam.mx>.
- Ghosh, B., M. Ramos-Mejía, R. C. Machado, S. L. Yuana, and K. Schiller 2021. "Decolonising Transitions in the Global South: Towards More Epistemic Diversity in Transitions Research." *Environmental Innovation and Societal Transitions* 41: 106–9. <https://doi.org/10.1016/J.EIST.2021.10.029>.
- Gilio-Whitaker, D. 2019. *As Long as Grass Grows: The Indigenous Fight for Environmental Justice, from Colonization to Standing Rock*. Boston, MA: Beacon Press.
- Gill, B. 2024. *The Political Ecology of Colonial Capitalism: Race, Nature, and Accumulation*. Manchester, UK: Manchester University Press.
- Giraldo, O. F. 2019. "Political Ecology of Agriculture." *Page Political Ecology of Agriculture*.
- Godek, W., and G. Kütting 2025. *Reconsidering Global Environmental Governance: Coloniality, Extractivism, and the Pursuit of Environmental Justice*. London, UK: Taylor & Francis.
- Goldman, M. J., M. D. Turner, and M. Daly 2018. "A Critical Political Ecology of Human Dimensions of Climate Change: Epistemology, Ontology, and Ethics." *Wiley Interdisciplinary Reviews: Climate Change* 9 (4): 1–16. <https://doi.org/10.1002/wcc.526>
- Gómez-Baggethun, E. 2022. "Is There a Future for Indigenous and Local Knowledge?." *The Journal of Peasant Studies* 49 (6): 1139–57. <https://doi.org/10.1080/03066150.2021.1926994>
- Gonda, N., S. Flores, J. J. Casolo, and A. J. Nightingale 2023. "Resilience and Conflict: Rethinking Climate Resilience Through Indigenous Territorial Struggles." *The Journal of Peasant Studies* 50 (6): 2312–38. <https://doi.org/10.1080/03066150.2022.2161372>

- Gordon, H. S. J., J. A. Ross, C. Bauer-Armstrong, M. Moreno, R. Byington, and N. Bowman 2023. "Integrating Indigenous Traditional Ecological Knowledge of Land into Land Management Through Indigenous-Academic Partnerships." *Land Use Policy* 125: 106469. <https://doi.org/10.1016/j.landusepol.2022.106469>
- Grote, K. M., and J. T. Johnson 2021. "Pipelines, Protectors, and Settler Colonialism: Media Representations of the Dakota Access Pipeline Protest." *Settler Colonial Studies* 11 (4): 487–511. <https://doi.org/10.1080/2201473X.2021.1999008>
- Hanazaki, N. 2024. "Local and Traditional Knowledge Systems, Resistance, and Socioenvironmental Justice." *Journal of Ethnobiology and Ethnomedicine* 20 (1): 5. <https://doi.org/10.1186/s13002-023-00641-0>
- Haq, S. M., A. Pieroni, R. W. Bussmann, A. M. Abd-ElGawad, and H. O. El-Ansary 2023. "Integrating Traditional Ecological Knowledge into Habitat Restoration: Implications for Meeting Forest Restoration Challenges." *Journal of Ethnobiology and Ethnomedicine* 19 (1): 33. <https://doi.org/10.1186/s13002-023-00606-3>
- Helland, L. F. 2022. "Indigenous Pathways Beyond the "Anthropocene": Biocultural Climate Justice Through Decolonization and Land Rematriation." *NYU Env't LJ* 30: 347. <https://heinonline.org/HOL/Page?handle=hein.journals/nyuev30&id=361>
- Herman, R. D. K. 2008. "Reflections on the Importance of Indigenous Geography." *American Indian Culture and Research Journal* 32 (3): 73–88. <https://doi.org/10.17953>
- Hesketh, C. 2025. "Indigenous Resistance at the Frontiers of Accumulation: Challenging the Coloniality of Space in International Relations." *Review of International Studies* 51 (1): 64–83. <https://doi.org/10.1017/S0260210523000268>
- High, C. 2025. *Translating Worlds, Defending Land: Collaborations for Indigenous Rights and Environmental Politics in Amazonia*. Redwood City, CA: Stanford University Press.
- Hill, R., C. Grant, M. George, C. J. Robinson, S. Jackson, and N. Abel 2012. "A Typology of Indigenous Engagement in Australian Environmental Management: Implications for Knowledge Integration and Social-Ecological System Sustainability." *Ecology and Society* 17 (1): 1–17. <https://doi.org/10.5751/ES-04587-170123>
- Hogg, E. L., and A. Surjan 2022. "Prospects of Climigration for the Pacific Islands." In *Handbook on Climate Change and Disasters*, 268–79. Cheltenham, UK: Edward Elgar Publishing.
- Homewood, K., P. Kristjanson, and P. C. Trench 2009. *Changing Land Use, Livelihoods and Wildlife Conservation in Maasailand*, 1–42. https://doi.org/10.1007/978-0-387-87492-0_1
- Houde, M., E. M. Krümmel, T. Mustonen, J. Brammer, T. M. Brown, J. Chételat, P. E. Dahl, R. Dietz, M. Evans, and M. Gamberg 2022. "Contributions and Perspectives of Indigenous Peoples to the Study of Mercury in the Arctic." *Science of the Total Environment* 841: 156566. <https://doi.org/10.1016/j.scitotenv.2022.156566>
- Howard-Wagner, D. 2020. *Indigenous Invisibility in the City: Successful Resurgence and Community Development Hidden in Plain Sight*. London, UK: Taylor & Francis.
- Howitt, R. 2002. *Rethinking Resource Management: Justice, Sustainability and Indigenous Peoples*. London, UK: Routledge.
- Hussein, N. N. 2022. "Decolonisation and Performance Studies: Questions from the Border." *Global Performance Studies* 5 (1–2): 1–11. <https://doi.org/10.33303/gpsv5n1-2a114>
- Iravani, R., M. Biagi, S. Laforest, K. Lee, L. Isaacman, Z. Chen, and C. An 2025. "Protecting Shorelines in Canadian Indigenous Communities: Environmental Challenges, Policy Interventions, and Mitigation Technologies." *Marine Pollution Bulletin* 219: 118310. <https://doi.org/10.1016/j.marpolbul.2025.118310>
- Isla, A. 2021. "“Greening,” the Highest Stage of Extractivism in Latin America." In *The Routledge Handbook on Ecosocialism*, 67–80. London, UK: Routledge.
- Jackson, P. A. 2021. *Capitalism Magic Thailand: Modernity with Enchantment*. Singapore: ISEAS-Yusof Ishak Institute.
- Janković, S. S. 2024. "A new Climate for Human Nature? Navigating Social Theory Through Postnature, the Anthropocene and Posthumanism." *Filozofija i Društvo* 35 (1): 53–80. <https://doi.org/10.2298/FID2401053J>
- Jessen, T. D., N. C. Ban, N. X. Claxton, and C. T. Darimont 2022. "Contributions of Indigenous Knowledge to

- Ecological and Evolutionary Understanding.” *Frontiers in Ecology and the Environment* 20 (2): 93–101. <https://doi.org/10.1002/fee.2435>
- Jewett, C., and M. Garavan 2019. “Water is Life—an Indigenous Perspective from a Standing Rock Water Protector.” *Community Development Journal* 54 (1): 42–58. <https://doi.org/10.1093/cdj/bsy062>
- Jones, R., P. Reid, and A. Macmillan 2024. “An Indigenous Climate Justice Policy Analysis Tool.” *Climate Policy* 24 (8): 1080–95. <https://doi.org/10.1080/14693062.2024.2362845>
- Joshi, S. 2021. *Climate Change Justice and Global Resource Commons: Local and Global Postcolonial Political Ecologies*. London, UK: Routledge.
- Kapoor, D. 2010. “Learning From Adivasi (Original Dweller) Political-Ecological Expositions of Development: Claims on Forests, Land, and Place in India.” *Indigenous Knowledge and Learning in Asia/Pacific and Africa* 1: 17–33. https://doi.org/10.1057/9780230111813_2
- Karetak, J., F. Tester, and S. Tagalik 2017. *Inuit Qaujimagatuqangit: What Inuit have Always Known to be True*. Halifax, NS: Fernwood Publishing.
- Kaufner, R. 2023. *Forest Politics from Below: Social Movements, Indigenous Communities, Forest Occupations and Eco-solidarism*. Cham, Switzerland: Springer Nature.
- Keenan, E., L. M. Fanning, and C. Milley 2018. “Mobilizing Inuit Qaujimagatuqangit in Narwhal Management Through Community Empowerment: A Case Study in Nauyasat, Nunavut.” *Arctic* 71 (1): 27–39. <https://doi.org/10.14430/arctic4699>
- Kennedy, C. M., B. Fariss, J. R. Oakleaf, S. T. Garnett, A. Fernandez-Llamazares, J. E. Fa, S. Baruch-Mordo, and J. Kiesecker 2023. “Indigenous Peoples’ Lands are Threatened by Industrial Development; Conversion Risk Assessment Reveals Need to Support Indigenous Stewardship.” *One Earth* 6 (8): 1032–49. <https://doi.org/10.1016/j.oneear.2023.07.006>
- Kimmerer, R. W. 2013. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Minneapolis, MN: Milkweed editions.
- Knauß, S. 2018. “Conceptualizing Human Stewardship in the Anthropocene: The Rights of Nature in Ecuador, New Zealand and India.” *Journal of Agricultural and Environmental Ethics* 31 (6): 703–22. <https://doi.org/10.1007/s10806-018-9731-x>
- Kohsaka, R., and M. Rogel 2019. “Traditional and Local Knowledge for Sustainable Development: Empowering the Indigenous and Local Communities of the World.” In *Partnerships for the Goals*, 1–13. Cham, Switzerland: Springer.
- Kojala, E. 2021. “Whose Labour, Whose Land? Indigenous and Labour Conflicts and Alliances Over Resource Extraction.” In *The Palgrave Handbook of Environmental Labour Studies*, 365–87. Cham, Switzerland: Springer.
- Korkut, E., L. B. Fowler, K. E. Halvorsen, D. Holen, E. L. Howe, and G. Chi 2022. “Addressing Climate Impacts on Alaska Native Tribes: Legal Barriers for Community Relocation Due to Thawing Permafrost and Coastal Erosion.” *UCLA J. Env’t L. & Pol’y* 40: 185. <https://doi.org/10.5070/L540259339>
- Kothari, U., and E. Klein 2023. *Advanced Introduction to Critical Global Development*. Cheltenham, UK: Edward Elgar Publishing.
- Kramm, M. 2020. “When a River Becomes a Person.” *Journal of Human Development and Capabilities* 21 (4): 307–19. <https://doi.org/10.1080/19452829.2020.1801610>
- Kröger, M. 2022. *Extractivisms, Existences and Extinctions: Monoculture Plantations and Amazon Deforestation*. London, UK: Taylor & Francis.
- Latour, B. 2007. “To Modernize or to Ecologize? That is the Question.” *Technoscience: The Politics of Interventions* 1: 249–72. <http://www.bruno-latour.fr/sites/default/files/73-TTH-CITY-GB.pdf>
- Latulippe, N. 2015. “Bridging Parallel Rows: Epistemic Difference and Relational Accountability in Cross-Cultural Research.” *The International Indigenous Policy Journal* 6 (2): 1–13. <https://doi.org/10.18584/IIPJ.2015.6.2.7>
- Leff, E. 2021. *Political Ecology: Deconstructing Capital and Territorializing Life*. Cham, Switzerland: Springer Nature.
- Liboiron, M. 2021. *Pollution is Colonialism*. Durham, NC: Duke University Press.
- Little, P. E. 2007. “Political Ecology as Ethnography: A Theoretical and Methodological Guide.” *Horizontes Antropológicos* 3 (SE): 0. http://socialsciences.scielo.org/scielo.php?pid=S0104-71832007000100012&script=sci_arttext
- Loftus, A. 2019. “Political Ecology I: Where is Political Ecology?” *Progress in Human Geography* 43 (1): 172–82. <https://doi.org/10.1177/0309132517734338>

- Long, J. W., R. W. Goode, and F. K. Lake 2020. "Recentring Ecological Restoration with Tribal Perspectives." *Fremontia* 48 (1): 14–19. <https://research.fs.usda.gov/treesearch/61600>
- Luoma, M., and M. Moore 2024. "Rectifying Historical Territorial Injustices." *Res Publica (Liverpool, England)* 30 (4): 683–703. <https://doi.org/10.1007/s11158-024-09660-4>
- Lupien, P. 2020. "Indigenous Movements, Collective Action, and Social Media: New Opportunities or New Threats?." *Social Media+ Society* 6 (2): 2056305120926487. <https://doi.org/10.1177/2056305120926487>
- Mackay, R. E. 2022. "An Indigenous Critique: Expanding Sociology and Recognizing Unique Indigenous Knowledge." *Frontiers in Sociology* 7: 1047812. <https://doi.org/10.3389/fsoc.2022.1047812>
- Maldonado, J. K. 2014. "A Multiple Knowledge Approach for Adaptation to Environmental Change: Lessons Learned from Coastal Louisiana's Tribal Communities." *Journal of Political Ecology* 21 (1): 61–82. <https://doi.org/10.2458/v21i1.21125>
- Malik, I. H. 2022. "Anthropogenic Causes of Recent Floods in Kashmir Valley: A Study of 2014 Flood." *SN Social Sciences* 2 (8): 162. <https://doi.org/10.1007/S43545-022-00463-Z>
- Malik, I. H. 2024. "Can Political Ecology be Decolonised? A Dialogue with Paul Robbins." *Geo: Geography and Environment* 11 (1): 1–13. <https://doi.org/10.1002/geo2.140>
- Malik, I. H. 2026. "Principles for Ethical Research in the Himalayas: Decolonising Research Ethics Across the Disciplines." *Humanities and Social Sciences Communications* 13 (1): 468. <https://doi.org/10.1057/s41599-026-06826-8>
- Malik, I. H., R. Ahmed, J. D. Ford, and A. R. Hamidi 2025. "Arctic Warming: Cascading Climate Impacts and Global Consequences." *Climate* 13 (5): 85. <https://doi.org/10.3390/cli13050085>
- Malik, I. H., R. Ahmed, J. D. Ford, M. S. A. Shakoar, and S. N. Wani 2024. "Beyond the Banks and Deluge: Understanding Riverscape, Flood Vulnerability, and Responses in Kashmir." *Natural Hazards* 120 (14): 13595–616. <https://doi.org/10.1007/S11069-024-06712-Z>
- Malik, I. H., and J. D. Ford 2024a. "Addressing the Climate Change Adaptation Gap: Key Themes and Future Directions." *Climate* 12 (2): 1–12. <https://doi.org/10.3390/cli12020024>
- Malik, I. H., and J. D. Ford 2024b. "Monitoring Climate Change Vulnerability in the Himalayas." *Ambio* 54 (1): 1–19. <https://doi.org/10.1007/S13280-024-02066-9>
- Malik, I. H., and J. D. Ford 2025a. "Barriers and Limits to Adaptation in the Arctic." *Current Opinion in Environmental Sustainability* 73: 101519. <https://doi.org/10.1016/j.cosust.2025.101519>
- Malik, I. H., and J. D. Ford 2025b. "Understanding the Impacts of Arctic Climate Change Through the Lens of Political Ecology." *Wiley Interdisciplinary Reviews: Climate Change* 16 (1): e927. <https://doi.org/10.1002/wcc.927>
- Malik, I. H., J. D. Ford, D. G. Clark, and T. Pearce 2024. "Climate Change, Mass Casualty Incidents, and Emergency Response in the Arctic." *Environmental Research: Infrastructure and Sustainability* 4 (4): 043002. <https://doi.org/10.1088/2634-4505/ad8fcc>
- Malik, I. H., J. D. Ford, and A. R. Hamidi 2026. "A Critique of Climate Objectivity in the Context of Global Injustice." *Environmental Research Letters* 21 (1): 011003. <https://doi.org/10.1088/1748-9326/ae301b>
- Malik, I. H., J. D. Ford, R. G. Way, and N. E. Barrand 2025. "Political Ecology of Climate Change Adaptation in the Arctic: Insights from Nunatsiavut, Canada." *Humanities and Social Sciences Communications* 12 (1): 1790. <https://doi.org/10.1057/s41599-025-06058-2>
- Malik, I. H., J. D. Ford, I. Winters, B. Hunter, N. Flowers, D. Quincey, K. Flowers, M. Flowers, D. Coombs, and C. Foltz-Vincent 2025. "Monitoring Climate Change Impacts, Indigenous Livelihoods and Adaptation: Perspectives from Inuit Community of Hopedale, Nunatsiavut, Canada." *Cambridge Prisms: Coastal Futures* 3: e10. <https://doi.org/10.1017/cft.2025.7>
- Malik, I. H., and S. N. I. Hashmi 2021. "The Great Flood and its Aftermath in Kashmir Valley: Impact, Consequences and Vulnerability Assessment." *Journal of the Geological Society of India* 97 (6): 661–9. <https://doi.org/10.1007/S12594-021-1742-Y>
- Malik, I. H., and S. Najmul Islam Hashmi 2020. "Ethnographic Account of Flooding in North-Western Himalayas: A Study of Kashmir Valley." *GeoJournal* 87 (2): 1265–83. <https://doi.org/10.1007/S10708-020-10304-2>

- Mantilla, Y. G. 2022. "The Implementation of the Right to Self-Determination of Aymara and Quechua Indigenous Peoples: An International Normative Response to the Spanish Conquest of Tawantinsuyu." *Emory Int'l L. Rev.* 36: 287. <https://heinonline.org/HOL/Page?handle=hein.journals/emint36&id=300>
- Marshall, S. D., and S. Balaton-Chrimes 2016. "Tribal Claims Against the Vedanta Bauxite Mine in Niyamgiri, India: What Role Did the UK OECD National Contact Point Play in Instigating Free, Prior and Informed Consent?." *Non-Judicial Redress Mechanisms Report Series* 9: 1–48. <https://ssrn.com/abstract=2878211>
- Martinez, D. 2018. "Redefining Sustainability Through Kincentric Ecology: Reclaiming Indigenous Lands, Knowledge, and Ethics." *Traditional Ecological Knowledge: Learning from Indigenous Practices for Environmental Sustainability* 1: 139–74. <https://doi.org/10.1017/9781108552998.010>
- Martinez-Alier, J. 2021. "Mapping Ecological Distribution Conflicts: The EJAtlas." *The Extractive Industries and Society* 8 (4): 100883. <https://doi.org/10.1016/j.exis.2021.02.003>
- McGregor, D. 2021. "Indigenous Knowledge Systems in Environmental Governance in Canada." *Kula* 5 (1): 1–10. <https://doi.org/10.18357/kula.148>
- McGregor, D., S. Whitaker, and M. Sritharan 2020. "Indigenous Environmental Justice and Sustainability." *Current Opinion in Environmental Sustainability* 43: 35–40. <https://doi.org/10.1016/j.cosust.2020.01.007>
- Mead, H. M. 2016. *Tikanga Maori (Revised Edition): Living by Maori Values*. Wellington, NZ: Huia publishers.
- Meehan, K., N. Mirumachi, A. Loftus, and M. Akhter 2023. *Water: A Critical Introduction*. Hoboken, NJ: John Wiley & Sons.
- Menzies, A. K., E. Bowles, D. McGregor, A. T. Ford, and J. N. Popp 2024. "Sharing Indigenous Values, Practices and Priorities as Guidance for Transforming Human–Environment Relationships." *People and Nature* 6 (5): 2109–25. <https://doi.org/10.1002/pan3.10707>
- Middleton, B. R. 2015. "Jahát Jat'totòdom: Toward an Indigenous Political Ecology." In *The International Handbook of Political Ecology*, 561–76. Cheltenham, UK: Edward Elgar Publishing.
- Mignolo, W. D. 2012. *Local Histories-Global Designs: Coloniality, Subaltern Knowledges, and Border Thinking*.
- Mignolo, W. D. 2013. "Introduction: Coloniality of Power and De-colonial Thinking." *Globalization and the Decolonial Option* 21: 1–21. <https://doi.org/10.4324/9781315868448>
- Mohan, V. 2025. "Political Ecology and the Paradox of Environmental Conservation." In *Dilemma in Politics*, 183–207. New Delhi, India: Routledge India.
- Moreton-Robinson, A. 2020. *Sovereign Subjects: Indigenous Sovereignty Matters*. London, UK: Routledge.
- Morgan, G. W., K. G. Tolhurst, M. W. Poynter, N. Cooper, T. McGuffog, R. Ryan, M. A. Wouters, N. Stephens, P. Black, and D. Sheehan 2020. "Prescribed Burning in South-Eastern Australia: History and Future Directions." *Australian Forestry* 83 (1): 4–28. <https://doi.org/10.1080/00049158.2020.1739883>
- Mortimer, L. M. 2020. "Kateri's Bones: Recovering an Indigenous Political Ecology of Healing Along Kaniatarowanenneh, 1660–1701." *Native American and Indigenous Studies* 7 (2): 55–86. <https://doi.org/10.1353/NAI.2020.A765048>
- Murhaini, S., and Achmadi. 2021. "The Farming Management of Dayak People's Community Based on Local Wisdom Ecosystem in Kalimantan Indonesia." *Heliyon* 7 (12): e08578. <https://doi.org/10.1016/J.HELİYON.2021.E08578>
- Murrey, A., and S. Mollett 2023. "Extraction is Not a Metaphor: Decolonial and Black Geographies Against the Gendered and Embodied Violence of Extractive Logics." *Transactions of the Institute of British Geographers* 48 (4): 761–80. <https://doi.org/10.1111/tran.12610>
- Napoleon, V. 2012. "Thinking About Indigenous Legal Orders." In *Dialogues on Human Rights and Legal Pluralism*, 229–45. Dordrecht, Netherlands: Springer.
- Napoleon, V., and H. Friedland 2016. "An Inside Job: Engaging with Indigenous Legal Traditions through Stories." *McGill Law Journal / Revue de Droit de McGill* 61 (4): 725–54. <https://doi.org/10.7202/1038487AR>
- Nation, T. R. 2021. *The Red Deal: Indigenous Action to Save Our Earth*. Brooklyn, NY: Common Notions.

- Nelson, J. M., A. Jeffrey, and S. A. Schnitker 2025. "Mino-Bimaadiziwin and the Pursuit of Harmony." *Personality and Social Psychology Review* 29 (4): 421–32. <https://doi.org/10.1177/10888683251345043>.
- Nelson, M. K., and G. Reed 2025. "Indigenous Critiques and Recommendations for Reclaiming Nature-based Solutions." *Proceedings of the National Academy of Sciences* 122 (29): e2315917121. <https://doi.org/10.1073/pnas.2315917121>
- Nesmith, A. A., C. L. Schmitz, Y. Machado-Escudero, S. Billiot, R. A. Forbes, M. C. F. Powers, N. Buckhoy, L. A. Lawrence, and L. M. Sloan 2021. *The Intersection of Environmental Justice, Climate Change, Community, and the Ecology of Life*. Cham, Switzerland: Springer.
- Neumann, R. P. 2009. "Political Ecology: Theorizing Scale." *Progress in Human Geography* 33 (3): 398–406. <https://doi.org/10.1177/0309132508096353>; WEBSITE:WEBSITE:SAGE;WGROU:STRING: PUBLICATION.
- Newell, P. 2005. "Race, Class and the Global Politics of Environmental Inequality." *Global Environmental Politics* 5 (3): 70–94. <https://doi.org/10.1162/1526380054794835>
- Newell, P., S. Srivastava, L. O. Naess, G. A. Torres Contreras, and R. Price 2021. "Toward Transformative Climate Justice: An Emerging Research Agenda." *Wiley Interdisciplinary Reviews: Climate Change* 12 (6): e733. <https://doi.org/10.1002/wcc.733>
- Nimoh, M., G. Abubakar, and S. Adu-Gyamfi 2024. "Legal Systems of the People of Dagbon: Continuities and Discontinuities." *Kervan. International Journal of African and Asian Studies* 28 (1): 105–124. <https://doi.org/10.13135/1825-263X/10038>
- Noroña, M. B., and M. Aguinda 2025. "Settler Extractive Governmentality, Kichwa Storytelling, and Indigenous Environmental Justice in the Ecuadorian Amazon." *Latin American and Caribbean Ethnic Studies* 20: 1–25. <https://doi.org/10.1080/17442222.2025.2461847>
- Nurse-Bray, M., R. Palmer, A. M. Chischilly, P. Rist, and L. Yin 2022a. *Old Ways for New Days: Indigenous Survival and Agency in Climate Changed Times*. Cham, Switzerland: Springer Nature.
- Nurse-Bray, M., M. Parsons, and A. Gienger 2022b. "Urban Nullius? Urban Indigenous People and Climate Change." *Sustainability* 14 (17): 10830. <https://doi.org/10.3390/su141710830>
- Nwankwo, S. C. 2025. "Harnessing Indigenous Knowledge for Climate Action: Bridging Traditional Wisdom." *Empowering Resilience: Women, Environment, and Socio-Economic Challenges in Nigeria* 38: 38–61. https://doi.org/10.70593/978-93-49307-80-3_3
- Olstead, R., and S. Chattopadhyay 2024. "Circles and Lines: Indigenous Ontologies and Decolonising Climate Change Education." *Settler Colonial Studies* 14 (1): 41–58. <https://doi.org/10.1080/2201473X.2023.2226952>
- Omodan, B. I. 2024. "The Roles of Epistemology and Decoloniality in Addressing Power Dynamics in University Education." *Globalisation, Societies and Education* 23: 1–15. <https://doi.org/10.1080/14767724.2024.2335661>
- Orlove, B., P. Sherpa, N. Dawson, I. Adekan, W. Alangui, R. Carmona, D. Coen, M. K. Nelson, V. Reyes-García, J. Rubis, G. Sanago, and A. Wilson 2023. "Placing Diverse Knowledge Systems at the Core of Transformative Climate Research." *Ambio* 52 (9): 1431–47. <https://doi.org/10.1007/s13280-023-01857-w>.
- Pandey, A. D. 2018. "Kondhs' Resistance Movement to Save Sacred Niyamgiri, Odisha." In *Indigenous Perspectives on Sacred Natural Sites*, 61–89. London, UK: Routledge.
- Parsons, M., and K. Fisher 2022. "Decolonising Flooding and Risk Management: Indigenous Peoples, Settler Colonialism, and Memories of Environmental Injustices." *Sustainability* 14 (18): 11127. <https://doi.org/10.3390/su141811127>
- Parsons, M., N. J. Godden, K. P. Henrique, P. Tschakert, N. Gonda, E. Atkins, K. Steen, and R. P. Crease 2025. "Participatory Approaches to Climate Adaptation, Resilience, and Mitigation: A Systematic Review." *Ambio* 54: 1–16. <https://doi.org/10.1007/s13280-025-02202-z>
- Peet, R. 2007. *Geography of Power: Making Global Economic Policy*. London, UK: Zed Books.
- Peet, R., P. Robbins, and M. Watts 2010. "Global Nature." In *Global Political Ecology*, 15–62. London, UK: Routledge.
- Peluso, N. L., and P. Vandergeest 2001. "Genealogies of the Political Forest and Customary Rights in Indonesia,

- Malaysia, and Thailand.” *The Journal of Asian Studies* 60 (3): 761–812. <https://doi.org/10.2307/2700109>.
- Perreault, T. A., G. Bridge, and J. P. McCarthy 2015. *The Routledge Handbook of Political Ecology*. London, UK: Routledge.
- Pieratos, N. A., S. S. Manning, and N. Tilsen 2021. “Land Back: A Meta Narrative to Help Indigenous People Show up as Movement Leaders.” *Leadership* 17 (1): 47–61. <https://doi.org/10.1177/1742715020976204>
- Porter, L., H. Matunga, L. Viswanathan, L. Patrick, R. Walker, L. Sandercock, D. Moraes, J. Frantz, M. Thompson-Fawcett, C. Riddle, and T. (Ted) Jojola 2017. “Indigenous Planning: From Principles to Practice/A Revolutionary Pedagogy of/ for Indigenous Planning/Settler-Indigenous Relationships as Liminal Spaces in Planning Education and Practice/Indigenist Planning/What is the Work of Non-Indigenous People in th...” *Planning Theory and Practice* 18 (4): 639–66. <https://doi.org/10.1080/14649357.2017.1380961>;ISSUE:ISSUE:DOI.
- Pörtner, H.-O., R. J. Scholes, A. Arneth, D. K. A. Barnes, M. T. Burrows, S. E. Diamond, C. M. Duarte, W. Kiessling, P. Leadley, and S. Managi 2023. “Overcoming the Coupled Climate and Biodiversity Crises and Their Societal Impacts.” *Science* 380 (6642): eabl4881. <https://doi.org/10.1126/science.abl4881>
- Postero, N. 2017. “The Indigenous State: Race, Politics, and Performance in Plurinational Bolivia.” *The Indigenous State: Race, Politics, and Performance in Plurinational Bolivia*, 1–229. <https://doi.org/10.1525/luminos.31>.
- Potter, R. B., T. Binns, and J. A. Elliott 2008. *Geographies of Development: An introduction to Development Studies*. Harlow, UK: Pearson Education.
- Prime, L. 2024. “Blocking Oil Development in Yasuni National Park: Ecuador’s Unprecedented Strides Towards Environmental Justice.” *Consilience* 27 (27): 1–8. <https://doi.org/10.52214/consilience.vi27.12100>
- Quichocho, D., and B. St. John 2021. “The Standing Rock Water Protests Against the Dakota Access Pipeline : Addressing Environmental Degradation Through Indigenous Political Ecology as the “Trickster Science”.” *Communicating Climate Change* 1: 135–50. <https://doi.org/10.4324/9781003037378-11>
- Racehorse, V., and A. Hohag 2023. “Achieving Climate Justice Through Land Back: An Overview of Tribal Dispossession, Land Return Efforts, and Practical Mechanisms for #landBack.” *Colo. Nat. Resources Energy & Env’t L. Rev.* 34: 175. <https://heinonline.org/HOL/Page?handle=hein.journals/colenvlp34&id=339>
- Rahman, M. F., D. Falzon, S. Robinson, L. Kuhl, R. Westoby, J. Omukuti, E. L. F. Schipper, K. E. McNamara, B. P. Resurrección, and D. Mfitumukiza 2023. “Locally Led Adaptation: Promise, Pitfalls, and Possibilities.” *Ambio* 52 (10): 1543–57. <https://doi.org/10.1007/s13280-023-01884-7>
- Ransom, J. W., and K. T. Ettenger 2001. “‘Polishing the Kaswentha’: A Haudenosaunee View of Environmental Cooperation.” *Environmental Science & Policy* 4 (4–5): 219–28. [https://doi.org/10.1016/S1462-9011\(01\)00027-2](https://doi.org/10.1016/S1462-9011(01)00027-2).
- Rashidi, P., and K. Lyons 2022. “Democratizing Global Climate Governance? The Case of Indigenous Representation in the Intergovernmental Panel on Climate Change (IPCC).” In *Economics and Climate Emergency*, 284–99. London, UK: Routledge.
- Rawluk, A., T. Neale, W. Smith, T. Doherty, E. Ritchie, J. Pascoe, M. Murray, R. Carter, M. Bourke, and S. Falconer 2023. “Tomorrow’s Country: Practice-Oriented Principles for Indigenous Cultural Fire Research in South-East Australia.” *Geographical Research* 61 (3): 333–48. <https://doi.org/10.1111/1745-5871.12596>
- Reed, G., N. D. Brunet, S. Longboat, and D. C. Natcher 2021. “Indigenous Guardians as an Emerging Approach to Indigenous Environmental Governance.” *Conservation Biology* 35 (1): 179–89. <https://doi.org/10.1111/cobi.13532>
- Reed, M. S., and H. Rudman 2023. “Re-thinking Research Impact: Voice, Context and Power at the Interface of Science, Policy and Practice.” *Sustainability Science* 18 (2): 967–81. <https://doi.org/10.1007/s11625-022-01216-w>
- Reed, R., and S. Diver 2023. “Pathways to Healing: Indigenous Revitalization Through Family-Based Land Management in the Klamath Basin.” *Ecology and Society* 28 (1): 1–21. <https://doi.org/10.5751/ES-13861-280135>
- Renfrew, D. 2011. “The Curse of Wealth: Political Ecologies of Latin American Neoliberalism.”

- Geography Compass* 5 (8): 581–94. <https://doi.org/10.1111/j.1749-8198.2011.00436.x>
- Reyes-García, V., D. García-del-Amo, S. Álvarez-Fernández, P. Benyei, L. Calvet-Mir, A. B. Junqueira, V. Labeyrie, X. Li, S. Miñarro, and V. Porcher 2024. “Indigenous Peoples and Local Communities Report Ongoing and Widespread Climate Change Impacts on Local Social-Ecological Systems.” *Communications Earth & Environment* 5 (1): 29. <https://doi.org/10.1038/s43247-023-01164-y>
- Rice, R. 2020. *Indigenous Movements in Latin America: Tensions, Contradictions, Possibilities*.
- Riley, K. 2023. (Re) Storying Human/Earth Relationships in Environmental Education: Becoming (Partially) Posthumanist. Cham, Switzerland: Springer Nature.
- Robbins, P. 2019. *Political Ecology: A Critical Introduction*. Hoboken, NJ: John Wiley & Sons.
- Roberts, J. 2020. “Political Ecology.” *Cambridge Encyclopedia of Anthropology*. <https://doi.org/10.29164/20polieco>.
- Robinson, C. J., J. M. Macdonald, M. Douglas, J. Perry, S. Setterfield, D. Cooper, M. Lee, J. Nadji, S. Nadji, and A. Nayinggul 2022. “Using Knowledge to Care for Country: Indigenous-led Evaluations of Research to Adaptively Co-manage Kakadu National Park, Australia.” *Sustainability Science* 17 (2): 377–90. <https://doi.org/10.1007/s11625-021-01015-9>
- Roos, R. 2024. “Researchers’ Perceptions of Their Collaboration with Indigenous and Local People in Environmental Change Research.” *Mitigation and Adaptation Strategies for Global Change* 29 (8): 79. <https://doi.org/10.1007/s11027-024-10174-w>
- Ruckstuhl, K., I. A. V. Nimatuj, J.-A. McNeish, and N. Postero 2022. *The Routledge Handbook of Indigenous Development*. London, UK: Taylor & Francis.
- Ruming, K., P. McGuirk, and K. Mee 2021. “What Lies Beneath? The Material Agency and Politics of the Underground in Urban Regeneration.” *Geoforum; Journal of Physical, Human, and Regional Geosciences* 126: 159–70. <https://doi.org/10.1016/j.geoforum.2021.07.015>
- Sakapaji, S. C., J. García Molinos, V. Parilova, T. Gavriljeva, and N. Yakovleva 2024. “Navigating Legal and Regulatory Frameworks to Achieve the Resilience and Sustainability of Indigenous Socioecological Systems.” *Resources* 13 (4): 56. <https://doi.org/10.3390/resources13040056>
- Scheidel, A., Á Fernández-Llamazares, A. H. Bara, D. Del Bene, D. M. David-Chavez, E. Fanari, I. Garba, K. Hanaček, J. Liu, and J. Martínez-Alier 2023. “Global Impacts of Extractive and Industrial Development Projects on Indigenous Peoples’ Lifeways, Lands, and Rights.” *Science Advances* 9 (23): eade9557. <https://doi.org/10.1126/sciadv.ade9557>
- Schneider, L. 2022. ““Land Back” Beyond Repatriation: Restoring Indigenous Land Relationships.” In *The Routledge Companion to Gender and the American West*, 452–64. New York, NY: Routledge.
- Schubert, J. 2005. “Political Ecology in Development Research.” *An Introductory Overview and Annotated Bibliography* 2: 1–74. <http://www.nccr-north-south.unibe.ch>
- Schulz, K. A. 2017. “Decolonizing Political Ecology: Ontology, Technology and ‘Critical’ Enchantment.” *Journal of Political Ecology* 24 (1): 125–43. <https://doi.org/10.2458/v24i1.20789>
- Sheremata, M. 2018. “Listening to Relational Values in the era of Rapid Environmental Change in the Inuit Nunangat.” *Current Opinion in Environmental Sustainability* 35: 75–81. <https://doi.org/10.1016/j.cosust.2018.10.017>
- Shlossberg, P., and H. Amaya 2024. “Violences, Displacements, and Responses: Exploring Settler Colonialism in North and Central America.” *Latin American and Caribbean Ethnic Studies* 19 (4): 383–400. <https://doi.org/10.1080/17442222.2024.2385869>
- Silvey, R., and K. Rankin 2011. “Development Geography: Critical Development Studies and Political Geographic Imaginaries.” *Progress in Human Geography* 35 (5): 696–704. <https://doi.org/10.1177/0309132510385523>
- Simon, G. L., and K. Kay 2024. *Doing Political Ecology*. London, UK: Taylor & Francis.
- Simpson, L. B. 2016. “Indigenous Resurgence and Co-resistance.” *Critical Ethnic Studies* 2 (2): 19–34. <https://doi.org/10.5749/jcritethnstud.2.2.0019>
- Simpson, M., and J. Bagelman 2020. “Decolonizing Urban Political Ecologies: The Production of Nature in Settler Colonial Cities.” In *Social Justice and the City*, 258–68. London, UK: Routledge.

- Sioui, M., D. Martin-Hill, B. Jacobs, N. Nagabhatla, S. Duignan, R. Patel, and S. Pangowish 2022. "Haudenosaunee Women's Water Law: Reclaiming the Sacred." In *Current Directions in Water Scarcity Research*, Vol. 4, 63–89. Amsterdam, Netherlands: Elsevier.
- Skinner, K., E. Pratley, and K. Burnett 2016. "Eating in the City: A Review of the Literature on Food Insecurity and Indigenous People Living in Urban Spaces." *Societies* 6 (2): 7. <https://doi.org/10.3390/soc6020007>
- Smith, C., S. Diver, and R. Reed 2023. "Advancing Indigenous Futures with Two-Eyed Seeing: Strategies for Restoration and Repair Through Collaborative Research." *Environment and Planning F* 2 (1–2): 121–43. <https://doi.org/10.1177/26349825221142292>
- Smith, L. T. 2021. *Decolonizing Methodologies: Research and Indigenous Peoples*. London, UK: Bloomsbury Publishing.
- Snelgrove, C., R. Dhamoon, and J. Cornthassel 2014. "Unsettling Settler Colonialism: The Discourse and Politics of Settlers and Solidarity with Indigenous Nations." *Decolonization: Indigeneity, Education & Society* 3 (2): 1–32. <https://jps.library.utoronto.ca/index.php/des/article/view/21166>.
- Snook, J., A. Cunsolo, J. Ford, C. Furgal, A. Jones-Bitton, and S. L. Harper 2022. "The Connection Between Wildlife Co-management and Indigenous Well-Being: What Does the Academic Literature Reveal?." *Wellbeing, Space and Society* 3: 100116. <https://doi.org/10.1016/j.wss.2022.100116>
- Sobeng, A. K., J. Morrissey, and J. Bloomer 2025. "Join the Circle: Developing a Non-Western Framework for an Inclusive Circular Economy Discourse." *Geography Compass* 19 (12): e70053. <https://doi.org/10.1111/GEC3.70053>.
- Steward, J. H. 1937. "Ecological Aspects of Southwestern Society." *Anthropos* 32 (H. 1/2): 87–104. <http://www.jstor.org/stable/40447907>
- Steward, J. H. 2005. "The Concept and Method of Cultural Ecology." *Anthropology in Theory: Issues in Epistemology*, 100–6. <https://download.e-bookshelf.de/download/0005/0185/25/L-G-0005018525-0002715444.pdf>
- Suchet-Pearson, S., S. Wright, K. Lloyd, L. Burarrwanga, and B. Country 2013. "Caring as Country: Towards an Ontology of Co-becoming in Natural Resource Management." *Asia Pacific Viewpoint* 54 (2): 185–97. <https://doi.org/10.1111/apv.12018>
- Sultana, A., D. Martin-Hill, and J. Wilson 2023. "Navigating Across Anthropological and Haudenosaunee Knowledge: Co-developing Research Using CBPR and Kaswenta (Two-Row Wampum) Principles in Partnership with Six Nations of the Grand River." *The International Indigenous Policy Journal* 14 (3): 1–27. <https://doi.org/10.18584/iipj.2023.14.3.14789>
- Sultana, F. 2021. "Political Ecology 1: From Margins to Center." *Progress in Human Geography* 45 (1): 156–65. <https://doi.org/10.1177/0309132520936751>.
- Sultana, F. 2024. *Chapter Urgency, Complexities, and Strategies to Confront Climate Coloniality and Decolonize Pathways for Climate Justice*.
- Sze, J. S., L. R. Carrasco, D. Childs, and D. P. Edwards 2022. "Reduced Deforestation and Degradation in Indigenous Lands Pan-tropically." *Nature Sustainability* 5 (2): 123–30. <https://doi.org/10.1038/s41893-021-00815-2>
- Tamtik, M. 2024. "Indigenous Peoples and Higher Education Governance: Decolonizing the Ivory Tower." *Higher Education Policy* 38: 1–23. <https://doi.org/10.1057/s41307-024-00361-4>
- Tănăsescu, M. 2020. "Rights of Nature, Legal Personality, and Indigenous Philosophies." *Transnational Environmental Law* 9 (3): 429–53. <https://doi.org/10.1017/S2047102520000217>
- Thompson, G. E. B. 2016. "The Double-Edged Sword of Sovereignty by the Barrel: How Native Nations can Wield Environmental Justice in the Fight Against the Harms of Fracking." *UCLA L. Rev.* 63: 1818. <https://heinonline.org/HOL/Page?handle=hein.journals/uclalr63&id=1810>
- Thompson, K.-L., T. C. Lantz, and N. C. Ban 2020. "A Review of Indigenous Knowledge and Participation in Environmental Monitoring." *Ecology & Society* 25 (2): 1–27. <https://doi.org/10.5751/ES-11503-250210>
- Tigre, M. A. 2022. "Climate Change and Indigenous Groups: The Rise of Indigenous Voices in Climate Litigation." *E-Publica* 9 (3): 214. https://scholarship.law.columbia.edu/sabin_climate_change/196
- Todd, Z. 2015. "Indigenizing the Anthropocene." *Art in the Anthropocene: Encounters among Aesthetics, Politics, Environments and Epistemologies*, 241–254.

- Todrys, K. W. 2021. *Black Snake: Standing Rock, the Dakota Access Pipeline, and Environmental Justice*. Lincoln, NE: U of Nebraska Press.
- Tomateo, C., and Z. Grabowski 2024. "Indigenous Justice Frameworks for Relational Ethics in Land-Based Design." *Ecosystems and People* 20 (1): 2409165. <https://doi.org/10.1080/26395916.2024.2409165>
- Tormos-Aponte, F. 2021. "The Influence of Indigenous Peoples in Global Climate Governance." *Current Opinion in Environmental Sustainability* 52: 125–31. <https://doi.org/10.1016/j.cosust.2021.10.001>
- Tran, T. C., N. C. Ban, and J. Bhattacharyya 2020. "A Review of Successes, Challenges, and Lessons from Indigenous Protected and Conserved Areas." *Biological Conservation* 241: 108271. <https://doi.org/10.1016/j.BIOCON.2019.108271>
- Tuck, E., and K. W. Yang 2012. "Decolonization is Not a Metaphor." *Decolonization: Indigeneity, Education & Society* 1 (1): 1–40. <https://jps.library.utoronto.ca/index.php/des/article/view/18630>
- Turner, N. J., A. Cuerrier, and L. Joseph 2022. "Well Grounded: Indigenous Peoples' Knowledge, Ethnobiology and Sustainability." *People and Nature* 4 (3): 627–51. <https://doi.org/10.1002/pan3.10321>
- Tynan, L. 2021. "What is Relationality? Indigenous Knowledges, Practices and Responsibilities with Kin." *Cultural Geographies* 28 (4): 597–610. <https://doi.org/10.1177/14744740211029287>
- Tzaninis, Y., T. Mandler, M. Kaika, and R. Keil 2021. "Moving Urban Political Ecology Beyond the 'Urbanization of Nature'." *Progress in Human Geography* 45 (2): 229–52. <https://doi.org/10.1177/0309132520903350>
- Urzedo, D., and P. Chatterjee 2022. "The Colonial Reproduction of Deforestation in the Brazilian Amazon: Violence Against Indigenous Peoples for Land Development." In *The Genocide-Ecocide Nexus*, 146–68. London, UK: Routledge.
- Van Cott, D. 2012. *The Friendly Liquidation of the Past: The Politics of Diversity in Latin America*. <https://books.google.com/books?hl=en&lr=&id=jihDct7TW50C&oi=fnd&pg=PR2&dq=The+Friendly+Liquidation+of+the+Past:+The+Politics+of+Diversity+in+Latin+America&ots=qnDXmXfw8c&sig=Mesnw6KaOPvs8IxTQTTmcJmXluw>
- van Luijk, N., J. Dawson, N. A. Carter, G. Song, C. Parker, K. Grey, and J. Provencher 2021. "At the Front Lines of Increased Shipping and Climate Change: Inuit Perspectives on Canadian Arctic Sovereignty and Security." *Arctic Yearbook* 10: 1–19. https://arcticyearbook.com/images/yearbook/2021/Scholarly-Papers/6_AY2021_Luijk_Dawson.pdf
- Vargas Hernández, J. G. 2012. INDIGENOUS POLITICAL ECOLOGY APPROACH TO SOCIAL MOVEMENTS IN MEXICO AND LATIN AMERICA/ABORDARE A ECOLOGIEI POLITICE INDIGENE. *Search.Proquest.Com*. <https://search.proquest.com/openview/814881d8306cf2205b70d04a089dd92c/1?pq-origsite=gscholar&cbl=2029203>
- Veltmeyer, H., and P. Bowles 2022. *The Essential Guide to Critical Development Studies*. London, UK: Routledge London.
- Veltmeyer, H., and A. Ezquerro-Cañete 2023. *From Extractivism to Sustainability: Scenarios and Lessons from Latin America*. London, UK: Taylor & Francis.
- Vetlesen, A. J. 2015. *The Denial of Nature: Environmental Philosophy in the Era of Global Capitalism*. London, UK: Routledge.
- VijayKumar, R. 2019. "Integrating Indigenous Knowledge and Traditional Practices for Biodiversity Conservation in a Modern World." *Environmental Reports* 1 (2): 4–7. <https://doi.org/10.51470/ER.2019.1.2.04>
- Vlados, C. M. 2024. "The Current Evolution of International Political Economy: Exploring the New Theoretical Divide Between New Globalization and Anti-Globalization." *Societies* 14 (8): 135. <https://doi.org/10.3390/soc14080135>
- Von der Porten, S., R. de Loë, and R. Plummer 2015. "Collaborative Environmental Governance and Indigenous Peoples: Recommendations for Practice." *Environmental Practice* 17 (2): 134–44. <https://doi.org/10.1017/S146604661500006X>
- Vuola, M. 2022. "The Intersections of Mining and Neoliberal Conservation." *World Development* 152: 105816. <https://doi.org/10.1016/j.worlddev.2022.105816>
- Walker, E., M. Wilcox, and S. Awatere 2025. "Reimagining, Reclaiming, and Reconnecting Indigenous Voices in Urbanism: A Review of Indigenous Approaches for Urban Ecological Restoration." *Humanities and Social Sciences Communications* 12 (1): 1–8. <https://doi.org/10.1057/s41599-025-05065-7>

- Wani, S. N., and I. H. Malik 2023. "Disaster Vulnerability and Flood Management Policy Framework in the Himalayas." *Arabian Journal of Geosciences* 16 (11): 609. <https://doi.org/10.1007/S12517-023-11727-0>.
- Watts, M. 2017. "Political Ecology." *A Companion to Economic Geography* 2: 257–74. <https://doi.org/10.1002/9781405166430.ch16>
- Watts, M., and R. Peet 2004. "Liberating Political Ecology." In *Liberation Ecologies*, 3–43. London, UK: Routledge.
- Wheeler, H. C., and M. Root-Bernstein 2020. "Informing Decision-making with Indigenous and Local Knowledge and Science." *Journal of Applied Ecology* 57 (9): 1634–43. DOI: 10.1111/1365-2664.13734
- Whetung, M. 2019. "(En)gendering Shoreline Law: Nishnaabeg Relational Politics Along the Trent Severn Waterway." *Global Environmental Politics* 19 (3): 16–32. https://doi.org/10.1162/glep_a_00513
- White, E., K. A. Artelle, E. Brown, K. Brown, D. E. Chan, and W. Housty 2024. "M̐úxv?it Model for Centering Indigenous Knowledge and Governance." *Conservation Biology* 38 (6): e14398. <https://doi.org/10.1111/cobi.14398>
- Whyte, K. 2016. "Indigenous Food Systems, Environmental Justice, and Settler-Industrial States (SSRN Scholarly Paper ID 2770094)." *Social Science Research Network*. <https://Papers.Ssrn.Com/Abstract,2770094>.
- Whyte, K. 2017a. "Indigenous Climate Change Studies: Indigenous Futures, Decolonizing the Anthropocene." *English Language Notes* 55 (1): 153–62. <https://muse.jhu.edu/article/711473>
- Whyte, K. 2017b. "The Dakota Access Pipeline, Environmental Injustice, and US Colonialism." *Red Ink: An International Journal of Indigenous Literature, Arts, & Humanities* 19 (1): 154–169. <https://ssrn.com/abstract=2925513>
- Whyte, K. 2018. "Settler Colonialism, Ecology, and Environmental Injustice." *Environment and Society* 9 (1): 125–44. <https://doi.org/10.3167/ares.2018.090109>
- Whyte, K. 2020. "Indigenous Environmental Justice: Anti-Colonial Action Through Kinship." In *Environmental Justice*, 266–78. London, UK: Routledge.
- Whyte, K., C. Caldwell, and M. Schaefer 2018. "Indigenous Lessons About Sustainability are Not Just for 'All Humanity'." *Sustainability: Approaches to Environmental Justice and Social Power* 149: 147–179. <https://doi.org/10.18574/nyu/9781479894567.003.0007>
- Whyte, K. P. 2013. "On the Role of Traditional Ecological Knowledge as a Collaborative Concept: A Philosophical Study." *Ecological Processes* 2 (1): 7. <https://doi.org/10.1186/2192-1709-2-7>.
- Whyte, K. P. 2019. "Way Beyond the Lifeboat: An Indigenous Allegory of Climate Justice." *Climate Futures: Reimagining Global Climate Justice* 1: 11–20. <https://kylewhyte.marcom.cal.msu.edu/wp-content/uploads/sites/12/2018/07/WayBeyondtheLifeboat.pdf>
- Wildcat, D. R. 2010. *Red Alert!: Saving the Planet with Indigenous Knowledge*. Golden, CO: Fulcrum Publishing.
- Williams, L. 2024. "Indigenous Intergenerational Resilience and Lifelong Learning: Critical Leverage Points for Deep Sustainability Transformation in Turbulent Times." *Sustainability* 16 (11): 4494. <https://doi.org/10.3390/su16114494>
- Wilson, N. J., M. G. Lira, and G. O'Hanlon 2022. "A Systematic Scoping Review of Indigenous Governance Concepts in the Climate Governance Literature." *Climatic Change* 171 (3): 32. <https://doi.org/10.1007/s10584-022-03354-7>
- Wilson, N. J., E. Mutter, J. Inkster, and T. Satterfield 2018. "Community-based Monitoring as the Practice of Indigenous Governance: A Case Study of Indigenous-led Water Quality Monitoring in the Yukon River Basin." *Journal of Environmental Management* 210: 290–8. <https://doi.org/10.1016/j.jenvman.2018.01.020>
- Wilson, S. 2020. *Research is Ceremony: Indigenous Research Methods*. Halifax, NS: Fernwood publishing.
- Wily, L. A. 2011. "'The Law is to Blame': The Vulnerable Status of Common Property Rights in Sub-Saharan Africa." *Development and Change* 42 (3): 733–57. <https://doi.org/10.1111/J.1467-7660.2011.01712.X>.
- Wolf, E. 1972. "Ownership and Political Ecology." *Anthropological Quarterly* 45 (3): 201–5. <https://doi.org/10.2307/3316532>
- Wolf, E. R. 1982. *Europe and the People Without History*. Berkeley, CA: Univ of California Press.
- Wong, M. T. 2018. *Natural Resources, Extraction and Indigenous Rights in Latin America: Exploring the Boundaries of Environmental and State-Corporate*

- Crime in Bolivia, Peru, and Mexico*. London, UK: Routledge.
- Wright, K. 2016. *Transdisciplinary Journeys in the Anthropocene: More-Than-Human Encounters*. London, UK: Routledge.
- Wyly, E. 2024. "Regarding the Pain of Indigenous Others." *Dialogues in Urban Research* 2 (3): 321–63. <https://doi.org/10.1177/27541258241259389>
- Youdelis, M., J. Townsend, J. Bhattacharyya, F. Moola, and J. B. Fobister 2021. "Decolonial Conservation: Establishing Indigenous Protected Areas for Future Generations in the Face of Extractive Capitalism." *Journal of Political Ecology* 28 (1): 990–1022. <https://doi.org/10.2458/jpe.4716>
- Zanotti, L., C. Carothers, C. A. Apok, S. Huang, J. Coleman, and C. Ambrozek 2020. "Political Ecology and Decolonial Research: Co-production with the Iñupiat in Utqiagvik." *Journal of Political Ecology* 27 (1): 43–66. <https://doi.org/10.2458/v27i1.23335>
- Zimmerer, K. S. 2006. "Cultural Ecology: At the Interface with Political Ecology—the New Geographies of Environmental Conservation and Globalization." *Progress in Human Geography* 30 (1): 63–78. <https://doi.org/10.1191/0309132506ph591pr>
- Zimmerman, L. 2023. "Erosion and Culture: An Examination of Climate Displacement in Coastal Louisiana." *Voices in Bioethics* 9: 1–10. <https://doi.org/10.52214/vib.v9i.11582>
- Zuliyah, S. 2021. "Comparison of Indonesian and Malaysian Legal Systems in Rules, Traditions, and Community Behavior." *Journal of Transcendental Law* 3 (1): 15–29. <https://doi.org/10.23917/jtl.v3i1.15169>
- Zurba, M., and A. Papadopoulos 2023. "Indigenous Participation and the Incorporation of Indigenous Knowledge and Perspectives in Global Environmental Governance Forums: A Systematic Review." *Environmental Management* 72 (1): 84–99. <https://doi.org/10.1007/s00267-021-01566-8>