



Achieving sustainability transformations for multi-species justice: assessing the potential of diverse legal pathways and societal struggles

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Received: 13 July 2024 / Accepted: 2 January 2025
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Abstract

This article explores the transformative potential of legal pathways and societal struggles to conserve biodiversity and achieve sustainability transformations toward multi-species justice. Exploring contemporary discourse on sustainability transformations, including emerging attention to relationality and critical perspectives, we analyse a range of legal instruments and measures to assess their transformative potential drawing upon their capacity to overcome rigid Cartesian dichotomies between humans and nature, to challenge capitalist accumulation imperatives and hence to contribute to a new societal sustainability goal of pluriversal, multi-species justice. Ranging from mainstream approaches in existing biodiversity and environmental instruments and supply chain instruments, such as environmental and deforestation due diligence, to newly emerging, more radical propositions of Rights of Nature, Ecocide and Restorative Justice, we review existing literature and empirical cases to interrogate and reflect upon their transformative potential, and to identify potentially effective combinations of socio-legal pathways.

Keywords Transformative multi-species justice · Biodiversity · Sustainability · Rights of nature · Ecocide · Restorative justice

Introduction

Socio-ecological damage is intensifying with planetary boundaries being exceeded, undermining a safe operating space for humanity (Steffen et al. 2015). This perilous situation is leading to growing academic and policy calls for sustainability transformations. Defining and achieving these remains challenging and, in this context, the role of legal pathways for achieving biodiversity conservation and sustainability transformations have not been fully explored.

The two research questions we seek to answer are as follows:

- To what extent and in what ways can legal pathways, instruments and mechanisms contribute to sustainability transformations?
- Which legal pathways have the most transformative potential for achieving multi-species justice?

We explore contemporary discourse on sustainability transformations, including emerging attention to relationality and critical perspectives for tackling socio-ecological damage, analysing a range of legal instruments and measures, ranging from mainstream approaches to newly emergent more radical propositions, interrogating their transformative potential.

Theoretical framework: sustainability transformations and multi-species justice

Transformative change theory

Policy discourse on sustainability frequently envisions change as part of sector or market transformations, or

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transformations in human systems based on technological fixes which omit critical and relational analysis (Meadows 1999). IPBES (2022) focuses on policy levers including legal and regulatory policy instruments, analysed according to their potential to shift economic paradigms and values of nature, differentiating those that promote the status quo (e.g. Environmental Impact Assessment, commodity chain regulation) or have incremental potential (e.g. legally protected areas, locally managed marine areas). The only transformative option is Rights of Nature (RoN).

In academia, socio-ecological systems or socio-technical systems (or dynamic systems) thinking dominates transformative change theory; the former frames change through interplays of niche innovations and regimes (Fisher and Brondizio 2022). Leverage points in dynamic systems theory are strategic interventions catalysing change across systems (Meadows 1999). Mobilizing changes in values, goals and paradigms (IPBES 2022) are challenging to achieve deeper leverage points, which reach beyond specific policies or resources (Abson et al. 2017). Leverage points thinking risks being reductive, employing mechanistic notions of reality. It can strategically refocus attention on values shifts, thereby, challenging singularized technical and accumulation-oriented solutions, in support of novel futures imaginaries, i.e. individual and collective identities of self and relations to others and place, which shape social orders (Castoriadis 1987; Taylor 2004). Another strand of transformative change theory envisions empowerment processes for marginal groups, involving democratic struggle, systemic and structural change (Scoones et al. 2020).

The relevance of relationality and More-Than-Human (MTH) thinking to sustainability has only recently emerged (West et al. 2020). Relationality understands the world as in constant flux, involving embodied, unfolding relations in complex assemblages, challenging the notion of a uniform world that can be observed by an external scientist. MTH thinking recognizes the agency, labour, sentience and value of non-humans in such assemblage processes. Shifting beyond anthropocentrism, some relational approaches embrace pluriversality, i.e. making space for plural ontologies (Feola et al. 2021). Critical perspectives on transformation address issues of power dynamics and interests, such as how capitalism causes socio-ecological damage. Capitalism controls not just economic structures, but invisibly shapes mental frameworks, influencing how people see the world and the possibilities within it. This prevents the development of alternative imaginaries (Fisher 2009). Commodifying nature, framing it as a resource, “subordinates the harms done to nature in favour of economic gain” (Doyle 2011, p. 21), what we might call a form of ecological imperialism with the potential to destroy ecosystems and biospheres (Crook and Short 2014). Active deconstruction of capitalist relations, plus practical efforts to co-create post-capitalist

realities are needed (Feola et al. 2021). The wealth accumulation inherent within capitalism is premised upon human-centred utility maximisation, which ultimately and increasingly is undermining the complex webs of life (Moore 2015). As Büscher (2022) argues, there are differentiated accountabilities along socioeconomic strata for the destruction being wrought upon such webs of life, and which is further marginalizing large shares of human populations, who are treated as ‘less than human’. Capitalist dominations, in Büscher’s critique of MTH research, diminish non-humans but also certain groups of humans. Therefore, the response should not just be non-anthropocentric, by decentring humans and their concerns, but should also clearly distinguish between human concerns and perspectives, as well as amplifying non-human experiences and agencies. More radical futures, challenging accumulation imperatives, and colonial modernities and patriarchies, are commonly deemed preposterous, but are needed for sustainability transformations.

A focus on specific levers can risk reproducing dominant expert-led depoliticized techno-science solutions (Lahsen and Turnhout 2021). We argue that reflexive interrogation of the broad designs of pathways, with attention to values, paradigms and ontologies, can be productive for insights on their potential and on design improvements. Drawing upon empirical cases, we can also see the messy, everyday nuances involved in efforts to achieve sustainability transformations (Feola et al. 2021). We explore the *potential* of legal pathways for sustainability transformations, given that evidence is necessarily limited (IPBES 2022). We evaluate which legal pathways have the capacity to shift economic paradigms (IPBES 2022) but also go beyond IPBES and its imperative to recognize other values of nature (IPBES 2022), to ask whether leverage points and levers challenge rigid Cartesian dichotomies. Also, we recognize that transformations cannot be achieved solely by policy levers, but in general require emancipatory social movements, cosmopolitics and relationality and deliberative democracy, for example, or might require changes beyond the latter, towards potentially eco-anarchism, because of the entanglement of nation states in capitalism (Smessaert and Feola 2023). In other words, legal systems are part of wider capitalist, patriarchal and colonial modernity superstructures and formations (Arora and Stirling 2023; Plumwood 1993).

Two key questions to interrogate pathways and levers are as follows: (i) To what extent does the initiative in question overcome rigid Cartesian dichotomies (human/nature, mind/body, subject/object) and thereby move beyond anthropocentrism? and (ii) To what extent does the lever or initiative challenge capitalist accumulation and colonial modernity imperatives, offering and co-developing alternative imaginaries, structures and practices in emancipatory processes? Further research should explore empirical cases and involve participatory action research to advance understanding (see

Escobar 2018; de Sousa Santos 2014; Mignolo and Walsh 2018; Barcelos 2019; Maldonado-Torres 2017).

Multi-species justice—a transformative goal?

‘Multi-species’ justice or ‘interspecies’ ethics are based upon “care for non-humans and ecological repair that is inclusive of more-than-human-worlds” (Biswas Mellamphy and Vangeest 2024, p. 8). Rather than thinking about how humans are *connected to* nature, it is important to understand that we are already always involved in some way or another alongside “objects, other animals, living beings, organisms, physical forces, spiritual entities” (de La Bellacasa 2017, p. 1). Further, humans are not the only living forms to undertake care work, which circulates in the natural world, in living webs of care (de La Bellacasa 2017). Ethics of care means recognising multi-species justice and accountabilities of (certain) humans for damage, moving beyond anthropocentric notions of justice (often based on notions of the white, heterosexual, male) towards a more inclusive blueprint of justice that treats all living beings as worthy of protection and respect (Winter 2022). Plural forms of knowledge and lifeways, such as Indigenous ones, have been obscured by Western centrism (Thaler 2022), which is grounded in human exceptionalism: the distinctiveness of humans and their separation from and superiority over other species and nonhuman nature (Srinivasan and Kasturirangan 2016, as cited in Celermajer et al. 2022 p. 120). The very notion of justice is expanded by multi-species concerns (Celermajer et al. 2022, p. 127).

Anthropocentrism prioritises human superiority over other species (Raymond et al. 2023), amplifying patriarchies through controlling, objectifying and exploitative relations pertaining to women and nature (Plumwood 1993). Bio-/eco-centric worldviews appreciate the value of nature for its intrinsic worth (IPBES 2022). To elaborate, ecocentrism “...is a worldview that recognizes intrinsic value in ecosystems and the biological and physical elements that they comprise, as well as in the ecological processes that spatially and temporally connect them” (Gray et al. 2018, p. 130). The interests of humans are considered secondary to those of ecosystems and the Earth. Biocentric approaches can go some way to responding to the failures of humanism, but risk reproducing rigid Cartesian separations of humans from nature (West et al. 2020). Many biocentric counter narratives do not go far enough because “humans remain the arbiter of value” (Biswas Mellamphy and Vangeest 2024, p. 6). Relational philosophies, common among Indigenous Peoples, some Eastern religions, and in some scholarship, do not involve such dualisms (Moore 2017). Giving space for these suppressed ontologies (Quijano 2000; Mignolo and Walsh 2018) is central to pluriversal politics (Escobar 2018). Achieving change requires, at minimum, a cosmopolitics

that recognizes the diversity of human and non-human actors and processes (Stengers 2010). Or going further, a pluriversal politics, i.e. struggles for plural ontologies or ‘world of many worlds’, drawing upon Indigenous knowledges, promoting conviviality (i.e. collectively and autonomously living well together) (Illich 1973) based on care ethics (de La Bellacasa 2017). Recognizing the agency, labour and value of nature, can be complemented by beliefs in which nature is kin (Rose 1992) with spiritual and sacred import, giving more reason to care about such diverse entanglements (de La Bellacasa 2017).

Methodological considerations

In the next section, we describe a range of legal pathways for biodiversity and sustainability, clustering these according to the extent to which they are (i) widely established in law and focus on biodiversity and environment, (ii) more recently established in certain jurisdictions and often lacking legal definition. We then analyse their transformative potential according to (a) the extent to which they address Cartesian dichotomies, particularly human–nature separations, and shift beyond anthropocentric and/or biocentric approaches, (b) the extent to which the lever can challenge capitalist and colonial modernity relations, taking into consideration both questions of design, but also implementation (see Table 1). The conceptual framing draws upon relevant literatures focusing upon transformative change, relationality, anthropocentrism, and ethics of care, to distil the two key criteria for reflexive learning on legal levers. The subsequent analyses are based upon an extensive exploration of the legal literature on biodiversity and environment, including identifying relevant studies on widely established legal mechanisms and instruments and more recent ones, as well as studies from sociology, development, green criminology and environmental fields of research, including empirical cases, which reflect upon the potential and limitations of these pathways. We also briefly explore measures which address accumulation imperatives, including at global macro-economic scales, to explore the possible necessity of mobilising these to create conditions for expanded place-based sustainability transformations.

Insights from relationality, MTH thinking and associated normative goals of ethics of care and multi-species justice can form the basis for reflexive analysis of legal and constitutional pathways for sustainability transformations. See Table 1 for broad guiding questions to explore the transformative potential of legal pathways and explore implementation challenges through several empirical cases. Rather than thinking about levers as tools for change, we are exploring deep leverage points through these guiding questions, e.g.

Table 1 A conceptual framework for reflexivity on potential levers for sustainability transformations (Nelson, submitted)

Assessing levers or initiatives for sustainability	Status quo	Less transformative/potential (blocking)	More transformative potential
To what extent does it overcome rigid Cartesian dichotomies and create space for care-oriented imaginaries recognizing entanglements, non-human agency and nature as kin (Onto-epistemological shifts)	Anthropocentric Prioritises human-oriented perspectives with a rigid dichotomy between humans and nature. Does not recognize nature as kin	Biocentric Prioritizes bio- or eco-centric perspectives, retaining the rigid dichotomy between humans and nature. Does not generally recognize nature as kin, i.e. having agency and labour	Pluriversal Recognizes interdependencies and entanglements between humans and nature, possibly including nature as kin, i.e. having agency and labour. Amplifies relational ontologies
To what extent do they directly or indirectly challenge accumulation and promote autonomous regeneration via pluriversal post-growth?	Status quo capitalist No constraints on consumption, no shifts in economic visions and structures	Reformist approach Seeks to modify or reform corporate practice to increase sustainability, treats market economy and growth as common sense, risks obscuring alternatives and does not tackle wider macro-economy and consumption governance	Convivial, diverse economies Promotes reciprocity focused, post-growth economies, tackles accumulation imperative and growth orientation. with a multi-species justice goal

shifts in values and onto-epistemologies, providing critical and relational analysis.

Legal pathways for transformative change for biodiversity and sustainability

Biodiversity and human rights and environmental due diligence

International law to protect the environment began to develop in the late nineteenth century and early twentieth century through the conclusion of bilateral agreements and disputes concerned with the protection of wildlife (United Nations 2007), or protection against specific issues such as pollution (United Nations 2006). As such efforts continued to develop, they began to take on a multilateral character following the creation of the United Nations (Sands et al 2018, pp. 26–29).¹ More inclusive approaches on protection, conservation and sustainable use of the environment through the concept of biodiversity were adopted in the 1980s, allowing for the recognition of the reciprocal relationships between species and ecosystems, rather than specific species in isolation (Sands et al. 2018, p. 384). Most notable is the Convention on Biological Diversity (CBD) (United Nations 1992) which takes a more holistic approach to the conservation and restoration of biodiversity, addressing both direct and indirect drivers of biodiversity loss, while mainstreaming biodiversity consideration across relevant policy areas (Sands et al. 2018, p. 387; United Nations 1992, art.

6). Initiatives adopted in response to and under the CBD are underpinned by the anthropocentric premise of nature as a vital resource for human life rather than the ecocentric premise of nature possessing value in and of itself (Taylor et al. 2020, pp. 1091–1092), and still less a relational and MTH understanding.

Legal actions focused upon biodiversity conservation, can have negative impacts on humans; while they begin to counter legal anthropocentrism by giving more attention to the environment, they continue to rigidly separate humans from nature in legal philosophy, enabling dispossessions of Indigenous Peoples and local communities. This is despite the relationality and ethics of care commonly underpinning many Indigenous philosophies and the effectiveness of Indigenous governance for territorial biodiversity. In the Indian case of *T.N. Godavarman Thirumulkpad vs Union of India and Ors* (1997), on the protection of Red Sanders trees from illegal logging, the court acknowledged how international treaties (CITES, CBD) and India's constitution embed an eco-centric approach (Supreme Court of India 1997, para. 18, 20, 26; Kodiveri 2023, pp. 191, 198, 200). This led to the establishment of a quasi-judicial committee to oversee executive decision making on deforestation. As a result, forest-dwelling communities were evicted (Kodiveri 2023, pp. 188, 195), demonstrating the negative effects when legal philosophies sustain Cartesian dichotomies, and view the environment through either an anthropocentric or biocentric lens. Pragmatically, the impact of biodiversity-oriented laws on human rights should be considered in current legal actions seeking the protection and restoration of biodiversity, but such legal levers clearly have limited transformative potential for both biodiversity and justice. The right to a healthy environment, while significant, is strongly influenced by western conceptions of human rights which

¹ For examples, please see High Seas Fishing and Conservation Convention 1958; Ramsar Convention 1971; CITES 1973).

place humans at the centre, and constructs rights-holders as individual humans (Aguila 2021). The conceptualisation of the right to a healthy environment in the African Charter on Human and Peoples' Rights (African Union 1981) has a more collective, but still anthropocentric approach (Aguila 2021), providing that "all peoples shall have the right to a general satisfactory environment favourable to their development" (African Union 1981, art. 24). The human rights of Indigenous Peoples and Local Communities, including those enshrined under UNDRIP, are critically important given the historical exclusion of these peoples' perspectives from law and policy making at both international (Mickelson 2000, p. 54) and national levels, and, if respected, may allow Indigenous relational philosophies to thrive.

Human Rights and Environmental Due Diligence (HREDD) laws are not specific to biodiversity conservation, but apply to diverse environmental harms, including where those environmental harms impact human rights. These laws are a specific supply chain instrument for reforming corporate practice through the hardening of the process of due diligence as defined in the UN Guiding Principles on Business and Human Rights (United Nations 2011, principle 17; Martin-Ortega 2014). Due diligence is the process by which businesses prevent, address and remedy impacts on human rights and the environment arising from their own operations and business operations to which they may be linked through their supply chain, including but not exclusively biodiversity. Various jurisdictions in Europe have approved HREDD laws, including the European Union, often imposing obligations on certain companies (e.g. over a certain size) to conduct due diligence in their supply chains (European Coalition for Corporate Justice 2016; BMAS 2021; European Parliament 2024). In complex global value chains, there is a great deal of room to hide poor practices and for companies to respond in partial ways due to the systemic constraints on responsible business (Nelson and Flint 2019). Where companies do not adhere to HREDD processes, civil society and community actors do have the potential to take companies to court (Jehangir 2023), but this can also be costly, time consuming and cumbersome, with little chance of success for claimants (De Schutter 2020, pp. 50–51; Savourey 2020; Lichuma 2021, pp. 527–528; Dehbi and Martin-Ortega 2023, pp. 937–939). Such laws reinforce Cartesian dichotomies and only seek to modify corporate behaviour, imposing standardized rules in reductionist approaches to the environment.

The EU recently adopted a Regulation on Deforestation (EUDR), which specifically focuses on supply chains but takes a wider approach to tackling deforestation compared to existing legislative approaches focused on direct drivers which have had limited impact, e.g. supply-side Voluntary Partnership Agreements (VPAs) (Zeitlin and Overdevest 2021) and demand-side EU Timber Regulation (EUTR)

(Sotirov et al. 2017).² The Regulation prohibits the import and export of seven forest-risk commodities (FRCs), namely, cattle, cocoa, coffee, palm oil, soy, rubber and wood, and any derived products should their production be linked to deforestation (European Parliament and Council of the European Union 2023, art. 3). It obliges value chain companies to exercise mandatory risk-based due diligence to assess and mitigate risks throughout supply chains. It further develops due diligence obligations on operators and traders, specifies minimum inspection levels, introduces a country benchmarking system, and significantly reduces the role of existing trade instruments such as timber legality licensing (under FLEGT VPAs) and private sustainability certification (European Commission 2021). These changes seek to institutionalize new foreign corporate accountability norms and standards in the global South (Berning and Sotirov 2023). FRCs are predominantly produced in third countries, where the EU does not have jurisdiction to dictate production processes. No effective legally binding global agreement exists that can justify and impose sustainability or legality standards for FRC production in both producing and consuming countries (Cashore and Stone 2014). Studies have shown that expectations for the mutual reinforcement of accountability and legitimacy between the state regulation of timber legality and private regulation of forest sustainability have so far fallen short (Bartley 2014; Dieguez and Sotirov 2021; Marx and Cuypers 2010) raising doubts over the efficacy of either strategy.

While the global and EU forest policy framework is well researched (e.g. Sotirov et al. 2020; Zeitlin and Overdevest 2021), there are few existing studies on the EU zero-deforestation policy. Mandatory due diligence of FRC supply chains, while a politically feasible policy option to reduce global deforestation (Bager et al. 2021), suffers persistent accountability weaknesses in the EUDR design (e.g. corporate reporting, legal liability, and state monitoring) (Schilling-Vacaflor et al. 2021) with an overly narrow scope (impacts on forests) excluding other critical ecosystems to avoid displacement of agricultural production to grasslands and wetlands. The European Commission may expand the regulation to other natural ecosystems within two years (Halleux 2022). There are potential negative impacts on smallholders, Indigenous Peoples and local communities (IPLCs) due to supply chain exclusions (price premiums on included commodities may be inadequate to cover the costs of compliance) and heightened land-use pressures which could result in smallholders and IPLCs being further pushed onto marginal lands (Zhusova et al. 2022). The EUDR may have quite far-reaching impacts (more research is needed), but there are clearly limitations in its reinforcement of human–nature dichotomies

² The EUTR is repealed by the EUDR.

and scope in seeking to reform corporate practice, rather than reshape economies by challenging capitalist relations, potentially advancing of corporate power and obscuring alternatives. The transformative potential of environmental laws and human rights and environmental and deforestation due diligence are summarised in the Table 2.

Rights of nature and legal personhood: exploring the transformative potential of Earth jurisprudence

In response to ongoing socio-ecological damage, there have been calls for the adoption of a new body of law, based on the philosophy of Earth Jurisprudence. In a broad legal philosophy, humans are “only one part of a wider community of beings” and “the welfare of each member of that community is dependent on the welfare of the earth as a whole” (Cullinan 2011, p. 13). This underpins the

legal approach to qualify natural entities as possessing legal personality and a subject of rights or right-holders. Stone suggested that trees should have legal standing in 1972 (Darpö 2021), and Berry (1999) introduced the concept of “Earth Law”, whereby “the Earth community has three rights: the right to be, the right to habitat, and the right to fulfil its role in the ever-renewing processes of the Earth community” (Darpö 2021). Some scholars identify the potential of the movement “...to create a world where people live in genuine harmony with nature” (Boyd 2017, p. 232). This would challenge anthropocentrism (Gonzalez 2015) and would prioritize the fundamental rights of all living things (the whole Earth community) to exist and live in a safe, clean, healthy and sustainable environment (Kauffman and Martin 2017, pp. 131–132). Within Earth jurisprudence, ecosystems granted legal personhood have the right to defend themselves against environmental

Table 2 Assessing the transformative potential of environmental laws and human rights and environmental and deforestation due diligence

Legal lever	Human–nature relations	Capitalist accumulation	Practicality/feasibility	Overall assessment
National and international Biodiversity laws	Moves beyond anthropocentrism, but at times reinforces Cartesian dichotomies, focusing on either biodiversity itself, or framing biodiversity as necessary for human survival. In both cases, implementation of such legal approaches has led to dispossession and violations of rights for Indigenous Peoples	May contribute to some limits on capitalist accumulation, but to a limited degree, simultaneously obscuring the potential for post-growth, pluriversal economic alternatives. Utilization of these laws in reducing global consumption and production patterns has been limited	International laws rely on national compliance with international agreements. Limited scope for sanctions in event of non-compliance. National laws rely on the establishment of effective institutional framework to monitor compliance	Less transformative potential
Human Rights Environmental Due Diligence	As above	May contribute to very small modification in corporate behaviour by requiring businesses to consider the impact of their (and their supply chains) operations on human rights and environment. But limits on capitalist accumulation are few. Obscures alternative economies and does not fundamentally transform economies. (May encourage intrinsic values of nature to be recognized)	Control-oriented, governmentality is key to this approach (e.g. standardized procedures) to fit a uniform world, nature viewed as a resource for management and exploitation	Less transformative potential
Deforestation Due Diligence	Mainly anthropocentric, although makes steps towards addressing damage to nature Nature is seen as a resource to be used, e.g. timber for global value chains, but wisely managed	As above	As above	Less transformative potential

degradation caused by anthropogenic interference, either through development or climate change (Challe 2021).

In North America, Pennsylvanian lawyers created the Community Environmental Legal Defense Fund (CELDF) to address environmental harms (Garver 2020), drafting legislation or constitutional provisions recognizing RoN. Elsewhere, Bolivia, Colombia, Ecuador, India, New Zealand have adopted various legal mechanisms granting RoN or legal personhood to various nonhuman phenomena (Garver 2020; Darpö 2021). Ecuador was the first country to adopt the RoN doctrine, referred to as the Rights of Pachamama (Mother Earth) (Challe 2021). The constitution acknowledges “an integral respect for nature’s existence and for the maintenance and regeneration of its life cycles, structures, functions, evolutionary processes, and restoration” (Berros 2015). This was groundbreaking for affording positive rights to nature, e.g. specific rights such as rights to restoration and providing legal standing to anyone in Ecuador to protect nature, regardless of their relationship to it (Republic of Ecuador 2008, pp. 10, 71–74). Bolivia has taken similar steps since 2010, hosting the first World People’s Conference on Climate Change and the Rights of Mother Earth, during which the ‘Universal Declaration of the Rights of Mother Earth’ was adopted (GARN 2010). In Colombia (2018) the Supreme Court of Justice ruled in favour of a group of indigenous youth to protect the Amazon from deforestation. The plaintiffs were able to demonstrate how the Colombian government had failed to meet its obligation to reduce deforestation by 2020 as required by the Paris Agreement. The court recognized the Colombian Amazon as a subject of rights; “entitled to protection, conservation, maintenance, and restoration led by the State and territorial agencies.”³ New Zealand’s Whanganui River was granted rights of personhood in 2017 (Tanasescu 2017). It now has legal standing, and two guardians are appointed to represent the rights of the river and its wellbeing—one from an Indigenous community and one from the Crown (Talbot-Jones 2014). The river Turag in Bangladesh was recognized as a ‘living legal entity with rights’ in 2019 (ClientEarth 2019), as was the Los Cedros Forest in Ecuador, generating the revocation of previously granted mining permits and the prohibition of any further extractive activities (GARN 2021; Prieto 2021). At the time of writing (April 2024) a new treaty was formed by Pacific Indigenous leaders from the Cook Islands, French Polynesia, Aotearoa (New Zealand) and Tonga, recognizing whales and dolphins as legal persons (Doornbos and Whitehead 2024).

RoN are classed as a ‘more transformative’ legal policy and regulatory solution to biodiversity losses (IPBES 2022), an argument we explore in more detail below. Some case

studies begin to provide insights into the potential and challenges of RoN. For Wesche (2021), success depends on the scale of implementation and degree of enforcement, based on his study of the first four years of implementation of the Constitutional Court of Colombia’s (2016) orders with respect to the Atrato River arising from its decision in the Centre for Social Justice Studies et al. v Presidency of the Republic et al. Following an analysis of monitoring committee implementation reports, and interviews with experts, Wesche found that the institutional arrangements ordered by the court (i.e. Commission of Guardians of the River) have led to a more coordinated and participatory approach to the formulation of public policies to enforce the Atrato river’s rights to protection and maintenance and related community biocultural rights (Wesche 2021, pp. 543–544, 547–548). Local communities have greater policymaking influence, “a major advance in a country, where public policies for far-off and historically neglected regions such as Chocó” are often developed by persons who have never visited and enhanced their environmental awareness (Wesche 2021, p. 548).

However, significant challenges also arose. In terms of enforcing the rights of the river through judicial means, it is unclear whether the Guardianship body and Colombia’s Ministry of Environment (MoE) possess such an ability to institute proceedings. Assumptions have been made about the Guardianship body’s ability, for example, whether it could become a party in criminal proceedings during which it could file applications and receive compensation. However, these have not been tested in Court (Wesche 2021, p. 550). As for the MoE, Ministry interviewees argue they lack possession of legal personality and argue grievances should be addressed by competent authorities (Wesche 2021, p. 550). Furthermore, communities focused on policy orders reflecting their overall vision for the territory, lifeways and autonomous development, rather than on seeking to enforce the rights of the river against actors in criminal or civil proceedings due to security challenges (Wesche 2021, p. 552). The presence of organised armed and criminal groups conducting illegal mining prevents guardians acting against local public or private actors due to security and physical integrity risks (Wesche 2021, p. 552). In terms of the action plans, whilst State entities invested considerable time into their development, only the eradication of illegal mining plan was adopted in the time limit of the court (Wesche 2021, p. 544). Efforts to strengthen legal and institutional frameworks to tackle illegal mining (improving relations with local communities, better articulation of intelligence activities, criminal investigations) lacked clear targets and baseline indicators against which performance could be measured and lacked community participation (Wesche 2021, pp. 544–545). The MoE engaged community guardians, local communities and relevant state entities. This led to the adoption of an extensive restoration plan that,

³ Ruling of the Supreme Court of Colombia Recognizing Rights to the Amazon Forest (5 April 2018).

according to community guardians, fully incorporated their views. Other state entities adopted a reactive approach to the ruling, not communicating with the river guardians and communities and essentially submitted plans which constituted inventories of their projects in the region (Wesche 2021, pp. 547–548). Community guardians lack resources to guide the implementation of the restoration plan over twenty years and legal education (Wesche 2021, pp. 549, 551). Thus, once legal recognition has been achieved (which is challenging as most legal systems are inherently anthropocentric), implementation barriers are significant. This impedes efforts to hold violators to account, as accumulation pressures remain high, such that economic development continues to supersede conservation. Transforming an entire economy dependent on illegal mining will be a complex process in contexts of poverty, conflict, weak institutions and corruption (Wesche 2021, p. 551). This raises questions about whether RoN can address capitalist imperatives without broader global actions for example (we discuss this in more detail below). Additionally, ecosystems often cross-cut political jurisdictions, which means that aligning local to global RoN laws and regulations will be necessary to protect ecosystems and address global scale climate and biodiversity challenges. Legal scholars have found that lack of precedent and legal clarity is a challenge (Kurki 2022) which prevent their uptake or lead to inconsistencies in application. Unintended impacts may include displacement of local communities relying upon natural resources. This lack of clarity stems from the clash between anthropocentric and biocentric approaches, which sustain divisions between humans and nature, which become embedded and retained in law.

To assess the transformative potential of RoN, we return to our key questions. While offering a promising framework for protecting and preserving ecosystems—a clear advance on purely anthropocentric approaches—there remain not only practical challenges, but also potential risks of reproducing human–nature dichotomies, which has real-world effects. Gómez-Betancur (2020) questions the RoN doctrine, arguing that a purely conservationist model of rights of nature (which recognizes the intrinsic value of nature free from interference from humans) may preclude humans from accessing the natural environment. This then reproduces an antagonistic relationship between humans and nature and enables the forced removal of indigenous groups to create human-free zones (Büscher and Fletcher 2019). Ignoring the historical relations of local Afro- and Indigenous communities to land, the RoN reinforces these dichotomies (Gómez-Betancur 2020, p. 76) which are part of colonial modernities (Arora and Stirling 2023). Garver (2020) also reviews RoN and suggests that granting legal personhood to nature is insufficiently radical, due to the focus on ensuring humans care for nature rather than endowing nature with rights: “the overarching goal of the rights of nature movement is to

prohibit or constrain human activity that overly harms other elements of the ecosystems in which humans are embedded, or those ecosystems as a whole” (Garver 2020, p. 94). Alternatively, a pluralistic approach entangles humans into nature; drawing on Braverman he states: “Instead of incorporating rights that give nature legal personhood, ecological law should ultimately be about adopting principles and rules that give people naturehood in the law” (Braverman 2018, p. 135 as cited in Garver 2020, pp. 90–91). Naturehood involves “...new understandings of the proper balance between humans and other members of Earth’s life systems (Garver 2020, p. 100). It draws upon Indigenous Peoples and other relational and animist philosophies which respect the spirituality, value and interdependent nature of all life. Indigenous Vedda ontologies (Sri Lanka) and Aboriginal worldviews (Australia) also challenge categorisation, homogenisation and colonisation of ontologies (Edirisinghe and Suchet-Pearson 2024) in the same vein. Without naturehood to humans, RoN may fall short of its transformative potential, except in cases where local communities themselves already have relational philosophies and ethics of care guiding their Guardianship of nature with rights. The granting of naturehood to people is needed, around the world, where such philosophies and values are not widely held and practiced. This means more than legal shifts but ontological ones as well (Edirisinghe and Suchet-Pearson 2024).

Ecocide

Ecocide is not an internationally recognized crime, so individuals or states cannot yet be prosecuted for destroying the Earth (Robinson 2022; Minkova 2023). The international crime of ‘environmental destruction’ exists, applying solely during wartime without broader applicability. The organization ‘Stop Ecocide International’ (SEI n.d.), established in 2017, seeks to add Ecocide to the Rome Statute of the International Criminal Court (ICC) to sit alongside other core international crimes: genocide, war crimes and crimes against humanity, to make it an arrestable offence, liable to criminal prosecution (SEI n.d.). Using international criminal law—the only international legal system that focuses on individual criminal responsibility—this would hold individual actors rather than states accountable for their actions and subject them to harsh penalties for crimes (Minkova 2023). “By levying responsibility on persons, not legal fictional entities (i.e. a corporation), the cycle of destruction and accrual of silent rights (the right to pollute, the right to destroy) will die” (Higgins 2012 as cited in Minkova 2023 p. 71). As environmental harms are often committed by wealthy actors situated in the global north (while those who are disproportionality impacted are often located in the global south), the crime of Ecocide can be used to target and prosecute the crimes of the powerful (Robinson 2022).

SEI commissioned an Independent Expert Panel (IEP) for the Legal Definition of Ecocide: “unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts” (Stop Ecocide Foundation 2021). Five key terms were defined:

1. ‘Wanton’: with reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated.
2. ‘Severe’: damage which involves very serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life or natural, cultural or economic resources.
3. ‘Widespread’: damage which extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings.
4. ‘Long-term’: damage which is irreversible, or which cannot be redressed through natural recovery within a reasonable period of time.
5. ‘Environment’: the earth, its biosphere, cryosphere, lithosphere, hydrosphere and atmosphere, and outer space (SEI n.d.).

Adding Ecocide to the Rome statute of the ICC would have practical/operational benefits as the ICC provides an enforcement mechanism and symbolically, the Statute underscores the gravity of the crime (Robinson 2022). It would act as a deterrent, reinforcing existing environmental laws and making non-binding multilateral agreements (e.g. the Paris agreement) easier to adhere to and would render the destruction of nature as culturally taboo. However, there are major challenges. The ICC is already failing to manage the crimes it currently has under its remit (Robinson 2022) and the threshold for this crime is unrealistic: it cannot prosecute corporations as the ICC only has jurisdiction over natural persons (Bilotta 2019). In other words, it can only prosecute individuals working within a corporation, not the corporation itself.⁴ Environmental crimes often are transboundary involving diverse decision-makers (Gill 2023) and there is a lack of consensus on criteria, making Ecocide difficult to prosecute (Bilotta 2019; Gill 2023). Finally, the ICC has limited reach; certain countries have not ratified the Rome Statute such as China, Russia and the US (Gill 2023).

Alternatively, a convention could incorporate Ecocide into state domestic laws, as well as a range of lesser environmental crimes broadening the proposition and extending the

definition beyond intentional action to include negligence (Robinson 2022). Furthermore, states could agree on a declaration of what constitutes the crime of Ecocide, alongside a commitment to add the crime into domestic legislation (Robinson 2022). Nationally, several countries have or are seeking to make Ecocide a crime (Kaminski 2023). Belgium was the first European country to recognize Ecocide under international law. The crime applies to “individuals in the highest positions of decision-making power and to corporations” (Cottam 2024). Punishment for the crime could include a 20-year prison sentence or a €1.6 million fine. In July 2023 Mexico submitted a bill to its parliament to criminalize Ecocide, drawing on the IEP definition (Kaminski 2023). Brazil has proposed an Ecocide bill. Other states have criminalized Ecocide including Vietnam, Ukraine and Russia (Kaminski 2023), while several European countries have submitted draft laws. Enforcement issues are significant. In Guatemala, despite legally recognizing Ecocide and finding a palm oil corporation guilty of damaging waterways and associated eco-systems, the corporation has resumed polluting the river despite the initial ruling. This case supports arguments for the establishment of an internationally recognized crime of Ecocide (Muir 2023) where, as outlined above, the ICC would provide an enforcement mechanism.

Legislative processes aside, further shortcomings remain. Firstly, despite the potential of Ecocide to challenge capitalist relations, the inclusion of the “wantonness element” reinforces existing dichotomies between humans and nature. The wantonness criteria included in the definition—which concerns itself only with actions considered in *excess* to social and economic benefits resulting from certain actions—will exclude actions that do not meet this threshold (Minkova 2023, p. 74). The current definition of Ecocide “allows those instances of environmental damage that do not “clearly” exceed the benefits to society to escape the reach of the law” (Minkova 2023, p. 74). In other words, the cost to the environment is deemed secondary to the benefits of humans.

At present, the IEP measures the wantonness criteria against the concept of sustainable development which it believes will provide a solid foundation for ensuring a proper balance between nature and society (Minkova 2023; Branch and Minkova 2023). This is problematic, as in reality, sustainable development envisions continued growth and does not tackle accumulation imperatives. Furthermore, using dam construction as one example, Minkova demonstrates how “the IEP’s definition creates the misleading perception that abstract concepts such as ‘environmental costs’ and ‘socio-economic benefits’ can be separated and determined in practice” (Minkova 2024, p. 82). In this instance, while some actors may benefit from better access to water or hydroelectric power, this does not negate the environmental damage caused by the construction of the dam, nor the potentially extensive impact on displaced communities. This

⁴ A natural person is a living human being which is distinguished from a legal person, which is a nonhuman entity that has been granted legal personhood status.

raises the question; ‘Who and what interests and values are taken into account? We will return to this shortly.

Interestingly the IEP offers little in terms of clarifying which socio-economic benefits it is referring to. It briefly mentions that these could include “housing developments and transport links”, but it does not outline how the social or economic benefits of these examples outweigh the environmental damage they would cause (see Minkova 2024). Furthermore, terms such as these suggest one-off events (Minkova 2024). Robinson (2022) reminds us that our everyday activities, such as travel, work, and consumption, all contribute to ecological harms. Hence, cost–benefit analysis would need to cover both one-off events linked to public, private and third sectors and daily practices. Doing so could be paralysing and imply more far-reaching degrowth solutions, which are proving hard to build public and political support for. The lack of support should not rule out consideration of such an approach, but they would be ambitious and would require a means of implementation.

Some suggest that green growth ecomodernist approaches could fit with a sustainable development approach that can deliver on the needs of current society without compromising the needs of future generations to avoid such trade-offs (Branch and Minkova 2023). However, evidence that green growth is being achieved on the timescale, duration and magnitude required is lacking. Another approach would be to engage in a process of ‘compartmentaliz[ing]’ socio-ecological harms (Boukli and Kotsakis) by dividing harms into separate components and applying different legal instruments to address each one (as cited by Minkova 2024). Creating flexibility in judgements is another alternative. Minkova (2024) recommends the ICC embrace principles of reflexivity and normativity to recognize the interconnect-edness between social and environmental harms. This would allow for more flexibility in cases of ecocide where moral judgements could replace objective legal practice and where terms such as ecological degradation would not be restricted to scientific meanings. This approach would encourage value judgements on expert knowledge, and judges would be expected to ask questions such as: Who has the authority to represent such expert knowledge and whose voices have been silenced? Allied to this is the question of how impact is measured and whose interests, values and voice matter more. Here Minkova offers two options: the egalitarian approach (ascribing equal value to the benefits of all) or the prioritarian approach (ascribing more value to the benefits of the worst-off). This discourse completely ignores non-human agency and casts Nature as a passive, external entity, rather than as something that could be represented in such moral judgements—something which could, obviously, be changed with public pressure and by social movements.

Ultimately, it is our contention that the wantonness criterion undermines the central tenet of this crime: to punish

those who commit environmental crimes that result in the destruction of the earth. As Heller (2021) argues: it “has no place in the definition of Ecocide...How the IEP can justify calling such an anthropocentric understanding of environmental destruction ‘Ecocide’ is difficult to understand.” Instead, “Ecocide” should be defined as “acts committed with awareness that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts, where a reasonable person would know that the expected environmental damage would be clearly excessive in relation to the social and economic benefits anticipated” (Heller 2021). On this basis, a moral judgement is made on the severity and temporality of the harms being caused.

The authors concede, that from a purely legal standpoint, the wantonness criteria, as outlined in the draft article to amend the Rome Statute, does recognise criminal recklessness. For some, the current definition, despite the caveats outlined above, can be a good solution, especially when considering other alternatives.⁵ Nevertheless, we maintain the importance of highlighting the inherent anthropocentrism underpinning the definition. Ideally, by removing the wantonness element, such a definition (and naming of the crime) would enable the concept of Ecocide to better capture the entanglement of human–nature relations.

As noted above, Ecocide has the potential to challenge capitalist relations; however, we envisage barriers in this regard. In stark terms, capitalism is leading to ‘ecologically induced genocide’ (Crook and Short 2014, p. 299), because of the accumulation and extraction of products and resources which is destroying environments and human populations being dispossessed and expelled from the land. Scholars refer to this as the genocide–Ecocide nexus (Crook and Short 2014; Crook et al. 2018). They posit that the ‘invasion’ and ‘annexation’ of indigenous land—resulting in cultural and social destruction of Indigenous Peoples forcibly removed from their land—meets the criteria contained within definition of genocide (Crook and Short 2014; Crook et al. 2018). “[F]or those Indigenous Peoples fighting to retain or regain their lands, they are fighting for their life as distinct peoples since, for them, their spirituality and cultural vitality is based in and on and with their lands. If we take this point seriously when this relationship is forcibly interrupted and breaks down due to expansionist land grabs driven by global capitalism, the genocide lens becomes appropriate” (Crook and Short 2014, p. 313).

⁵ These might include focusing solely on the concept of pure intention (which would be considered far too high a bar to be workable in practice) or strict liability (which no sovereign State would ever agree to be bound).

In terms of transformative potential, Ecocide is clearly driven by colonial modernities, which cast nature and certain peoples as being of lesser value and available for control and exploitation (of which capitalism is one manifestation, another example being state socialism). Ecocide could present a transformative option if the definition is clarified to more fully address capitalist pressures and colonial modernities. It also needs to remove the wantonness element to overcome the rigidity of human–nature dichotomies, recognizing that it is not only in Indigenous Peoples’ contexts where human–nature entanglements are central to sustainability futures. In some ways, the concept of Ecocide has a bio- or ecocentric framing and might better be conceptualised as socionaturecide, to recognize the existential threats of harms to the flourishing of all life on Earth.

Environmental courts and tribunals

Given some of the implementation challenges of RoN and Ecocide, we explore here their application in court processes. Several international agreements and policing initiatives address international environmental crimes (Walters and Westerhuis 2013),⁶ e.g. environmental courts and tribunals (ECTs), which have existed since the 1970s. There are 2,115 operational ECTs in 67 countries (UN Environment Programme 2016), ranging from fully formed independent judicial branch bodies, made up of trained expert staff with large budgets to small, underfunded village courts, with rotating judges that deal with environmental cases once a month (UNEP 2016). Environmental tribunals can be either complex administrative-branch bodies or local community land use planning boards (see UNEP 2016). There are challenges associated with ECTs, e.g. risks of sidelining environmental cases, plus issues relating to the definition of what is considered an environmental issue. Overall, however, ECTs could provide a pathway for implementing RoN. The expertise, efficiency, visibility and lower costs of ECTs are positives, offering greater accountability for crimes against nature, visible government support and a focus for public attention (UNEP 2021). They increase opportunities to use alternative dispute resolutions, such as Restorative Justice, which enable prosecutions, but promote non-adversarial dispute resolving processes.

⁶ It is worth noting that a coalition of environmental, legal, business, academic and NGO stakeholders have called for an international court for the environment (ICE) to redress the current limitations within the existing ‘environmental legal order’ (ICE coalition n.d.).

Restorative justice

Restorative Justice is a form of justice that considers the needs of the victim, offender, and the wider community, giving voice to victims through active listening, bringing together the victim, offender, and others impacted by the crime, to reach a resolution. Emphasis is placed on “harm reparation, social restoration, community harmony, and problem-solving” (White 2014, p. 43). Restorative Justice gives victims “opportunity to express their needs and to participate in determining the best way for the offender to make reparation...” (Preston 2011, p. 3). This is more difficult when the victim is a nonhuman entity. Used in environmental crime cases, active listening extends beyond the human world to hear the voice of nature and ascertain differing significance that people attach to different nonhuman entities (White 2014). To tackle the politics of representation within multi-species justice, initiatives are underway to allow non-humans to speak with ‘an active voice’, e.g. via arts-based methods.⁷

Restorative Justice has been used in cases of small-scale environmental offences by local companies in Australia, New Zealand, and Canada. In the latter two, trees and rivers have been acknowledged as victims of environmental crime and represented by Indigenous organizations (Wijdekop 2019). In their review of case law from these countries, the International Union for Conservation of Nature identified the following outcomes in these cases: apologies, restoration of the harm done to the environment, including prevention of future harms, monetary compensation to victims and community service work (Wijdekop 2019).

Using Restorative Justice in cases of environmental crime can (i) empower victims by giving them a voice, (ii) require the offender to take responsibility and listen to the harm they have caused, and (iii) offers the community an opportunity to take control of the case, allowing them to have an active role in reaching a resolution (Preston 2011). Giving nature a voice has the potential to transform humanity’s relationship with environments other than humans (Preston 2011). Preston (2011) identifies the following victims of environmental crime: specific individuals, classes of persons, members of a community, future generations, and environment other than humans. Members of a community are inextricably linked to the environment in which the community exists. Therefore, when the environment is harmed or damaged so too is the community (Preston 2011, p. 11). Humans are not and will not be the only victims of environmental crime. “The biosphere and non-human biota have intrinsic value independent of their utilitarian or instrumental value for humans. When harmed by environmental crime, the biosphere and

⁷ <https://mothrights.org/category/arts/>

non-human biota also are victims (Preston 2011).⁸ While we concur with the sentiment that both humans and nature are affected by environmental crimes, we note that Preston's argument reinforces human–nature dichotomies. He argues for privilege to 'the Indigenous voice' because of their intrinsic identification with the land (White 2014), but care is needed to avoid essentializing Indigenous Peoples and instead focus on their ontologies which can vary and are changing. In some instances, they may include relationality and ethics of care values; however, in many other contexts globally, such philosophies and values are sidelined.

Below we review two cases to assess the transformative potential of using Restorative Justice in environmental courts.

Garrett v Williams 2007

Restorative Justice was used in a case involving environmental crime—Garrett v Williams in 2007. In this case, a mining company, without consent, excavated Aboriginal lands, causing harm to Aboriginal objects thereby contravening the National Parks and Wildlife Act 1974. Williams, the guilty party, pleaded guilty to the offence against s 90(1) of the National Parks and Wildlife Act 1974 (NPW Act) (NSW 1974). The act states that: "A person who, without first obtaining the consent of the Director-General, knowingly destroys, defaces or damages, or knowingly causes or permits the destruction or defacement of or damage to, an Aboriginal object or Aboriginal place is guilty of an offence against this Act. Maximum penalty: 50 penalty units or imprisonment for 6 months, or both (or 200 Penalty units in the case of a corporation)" (Hamilton 2008). Before sentencing, the Judge set up a Restorative Justice conference between Williams, the local Wilyakali people and prosecutors (McDonald 2008; Walters and Westerhuis 2013). Harm was deemed to have been done to both 'place' and those identifying with the 'place', i.e. harm was done to both humans and nonhumans. The Court only explicitly addressed the impact on humans (White 2014). Recognizing the nature–human relations imbued in many Indigenous cosmologies, "the specific material and cultural positioning of Indigenous people within certain landscapes is vital to understanding the nature of environmental victimisation in cases such as Williams" (White 2014, p. 47). In the words of Dodson: "Everything about Aboriginal society is inextricably interwoven with, and connected to, the land. Culture is the land, the land and spirituality of Aboriginal people,

our cultural beliefs or reason for existence is the land. You take that away and you take away our reason for existence. We have grown the land up. We are dancing, singing and painting for the land. We are celebrating the land. Removed from our lands, we are literally removed from ourselves" (Dodson 1997 as cited in White 2014, p. 48). This shows the importance of challenging "'white' understandings of nature and the nature–human relationship" (White 2014) and privileging the knowledge and lived experience of Indigenous Peoples. This, White (2014) argues, is what occurred in *Garrett v Williams* 2007. The New South Wales Land and Environment Court went to great efforts to ensure that the Indigenous voice was given primacy over and above other types of so-called expert evidence (White 2014, p. 50).

Restorative Justice in this case embraced a different philosophy to the dominant colonial modernity and hence represents a way of overcoming Cartesian dichotomies and challenging capitalist relations. "Restorative remedies... promise to tackle environmental damage not per se, but *vis-à-vis* the broader harm to relation. Thus, restorative solutions are better suited than traditional punishments to rebalance the anthropocentric and eco-centric components embedded in environmental harm" (Porfido 2021, p. 114).

Given its recognition that human–nature relations are entangled, (often) spiritual and sacred, Restorative Justice has the potential to support transformative change for multi-species justice, when combined with RoN. However, we suggest that this is only the case where local communities have relational philosophies and ethics of care or are supported to unlearn them. Contemporary imaginaries of human–nature relations are constrained, with material effects, suppressing more pluriversal MTH imaginaries and formations. In some contexts, local communities have very instrumental imaginaries of rivers, for example, and Nature as a whole, but not in all: continuity is assumed between the Whanganui River in New Zealand and Maori peoples for example. In Bangladesh, more limited rights are granted to rivers; rather than being treated as persons, rivers are in the stated custody of human persons, who should protect them for the public good, not for the intrinsic values of nature, and certainly no naturehood is ascribed to humans, aligning with normative Muslim perspectives (Khan n.d.). In Bangladesh, there has not been facilitation of Indigenous perspectives to inform RoN discourse and reimagine rivers both in legal jurisprudence/instruments and more broadly (Khan n.d.). In many modern societies, imbued with invisible colonial modernities (Arora and Stirling 2023) processes of unlearning and undoing colonial modernities and co-creating new river–human and more broadly nature–human relation imaginaries and formations will be ever more essential for pluriversal sustainability transformations. Restorative Justice could be combined with emancipatory education processes, as well as support for social movements.

⁸ See the report, Restorative Justice Responses to Environmental Harm, written by Wijdekop for the International Union for Conservation of Nature for cases where trees and rivers have been represented by surrogate victims on RJ conferences in Canada and New Zealand.

More specifically, within legal contexts, mock trials can advance awareness of new propositions. In 2011 a Mock Ecocide Trial was held in the Supreme Court of England and Wales to demonstrate the viability of introducing this crime. Two fictional Chief Executive Officers (CEO) were put on trial for causing Ecocide. The cases in question were the Deepwater Horizon Oil Disaster in the Gulf of Mexico and Unconventional oil extraction in Alberta, Canada (Wijdekop 2019). Both CEOs were found guilty of Ecocide. Following their convictions, a Restorative Justice hearing was established (The Hamilton Group 2011). Only one of the CEOs took part. He was joined by various spokespersons: one for the birds impacted by the environmental crimes, one for future generations, one for the wider community, one for the Earth and a representative from the Indigenous People affected by the crimes. The mock trial was considered successful in enabling dialogue between diverse human and non-human entities, all aimed at giving voice, healing and restoration, generating pathways for mending damage (Wijdekop 2019).

Discussion

A combination is needed of RoN (especially embracing naturehood to persons), Ecocide, Restorative Justice and environmental courts, plus emancipatory education, social movements and socio-cultural engagements, and arts with communities who are steeped in solely instrumentalist relations to enable recovery and creation of new MTH ontologies and praxis. This is relevant especially in specific geographies where colonial modernities are intense.

Multi-species justice, from an ontological viewpoint, treats all beings as equal. This aligns with African and indigenous notions of collective rights which seek to replace individualized notions of human rights (see IPBES 2022). The former refers to the rights of all living beings: “trees, forests, other plant and animal species, water bodies, and a variety of other physical and metaphysical entities, whether visible or otherwise, such as sacred landscapes” (Crawhall 2023). While such expansive understandings of rights challenge Cartesian dichotomies and colonial modernities (Quijano 2000; Arora and Stirling 2023)—which have enabled the appropriation of nature—they still work with the concept of ‘rights’, rather than ancestral claims to territory. The imposition of proprietary rights on non-proprietary lands with ancestral claims, while giving scope to create Indigenous rights, created potential for their alienation, which continues to this day (German 2022). Onto-epistemologically, pluriversality and justice are thus challenging to combine given that Western notions of justice are inherently limiting, but multi-species justice thinking can at least promote deeper changes in legal systems and socio-cultural norms,

focusing attention on empathy and care between humans and more-than-human-worlds. See Table 3 for a summary of the transformative potential of Rights of Nature, Ecocide, environmental course and Restorative Justice.

Tackling capitalism and colonial modernities

Specific measures and struggles are needed to dismantle capitalist relations and the broader colonial modernity formation of which they are an example. We cannot cover these in depth, but legal examples that could contribute to challenges to capitalist relations might include the following: legal levers to control corporate power and re-shape financial systems (e.g. anti-monopoly regulation, prevention of mergers and acquisitions that create excessive market concentration, expansion of public banking); laws to redistribute wealth and power (including progressive taxation, given that environmental impacts are disproportionately higher among high-net-worth individuals see Oxfam International 2023); stricter rules on corporate political lobbying to prevent the thinning of democracy (Standing 2016); legal measures to redistribute land from private control to enable community land ownership and enterprise; deliberative democracy (e.g. citizen assemblies and participatory budgeting). This includes political will, public acceptance, international coordination and economic stability (Kallis et al. 2012). Some of these critical eco-Marxism propositions are strong on challenging capitalist relations, but do not yet address anthropocentrism (e.g. labour laws currently focus solely on human workers, neglecting the labour of non-human species) nor colonial modernities. They leave political logics intact and so are not trans-hegemonic in nature in terms of sustainability transformations (Hamilton and Ramcilovic-Suominen 2023). Shifts in onto-epistemologies and values created by social movements and converging coalitions are needed to facilitate pluriversal, trans-hegemonic approaches that address and escape colonial modernities. This means support for ontological recovery and creativity, through struggle, arts, and critical pedagogy, to curate shifts in consciousness and ways of being relating to the agency and vitality of non-humans as part of more-than-human assemblages—underpinned by ethics of care for flourishing earthly life (Nelson et al. forthcoming).

Conclusion

Seeking to establish whether the law has a role in the achievement of pluriversal, multi-species justice sustainability transformations, we have explored the ability of legal pathways and levers to challenge rigid Cartesian dichotomies and other related dimensions of colonial modernities, including capitalist accumulation. We find that existing

Table 3 Analysis of the transformative potential of rights of nature, ecocide, environmental course and restorative justice

Lever	Human–nature relations	Capitalist accumulation	Practicality/feasibility	Overall assessment
RoN-Legal personhood	Moves beyond anthropocentrism by ensuring humans respect and care for nature by observing its rights, but it retains distinctions between humans and nature in a more biocentric approach (dichotomies are to a certain extent, upheld)	May challenge capitalist relations with recognition that nature needs to be protected and by giving local communities more power to defend ecosystems	Economic interests often overshadow environmental concerns Enforcement challenges exist, especially in contexts of threat of violence Lack of legal precedent. Cultural, economic, ideological challenges	Less transformative potential
RoN-naturehood for people	Challenges rigid human–nature dichotomies, making space for plural philosophies which recognize human–nature entanglement and non-human agency and value (care ethics) by giving people naturehood in law	May challenge capitalist relations with greater recognition of human–nature interdependencies and impacts of capitalism on these highlighting a greater need for protection. Gives local communities more power to defend socio-natures	As above	More transformative potential when supported by relational, community philosophies and Restorative Justice
Ecocide ICC	The wantonness element gives primacy to human benefits (anthropocentric) while also retaining/reinforcing distinctions between humans and nature (biocentric perspectives are also, to a certain extent, upheld)	The IEP definition would allow for prosecuting wealthy actors guilty of committing Ecocide crimes. The cost–benefit analysis of the damage done to the earth versus the economic gain favours the latter. Ecocide tackles the consequences of capitalist accumulation (destruction to the earth) rather than the driving force: capitalism It can act as a deterrent	The ICC would provide an enforcement mechanism Prosecuting individuals is more realistic than prosecuting states. Despite the international focus of the ICC, it still does not have global reach	Less transformative potential, unless it addresses the inextricable link between capitalism, Ecocide and genocide
Ecocide as convention	Potential to move beyond anthropocentrism and biocentrism, if the wantonness element contained within the IEP definition is removed and a convention is drafted as outlined by Robinson (2022) and the crimes listed are informed by the RoN-naturehood for people doctrine	If the wantonness element is removed from the definition of Ecocide, then there is the potential to challenge capitalist relations Has more potential to tackle the root cause of Ecocide if specific laws are in place that target extraction, annexation and invasion of Indigenous lands	State-level implementation may be more feasible as outlined above. It does not address Ecocide committed by the state. Enforcement issues, especially in contexts of insecurity and violence	More transformative potential but only if the wantonness element is not part of local/state definitions of Ecocide

Table 3 (continued)

Lever	Human–nature relations	Capitalist accumulation	Practicality/feasibility	Overall assessment
RoN, Restorative Justice and the environmental courts	This combination moves beyond anthropocentrism, where it supports the idea of an Earth community, where all members (human and nonhuman) are valued and protected from harm	Potential to challenge capitalist relations, by collapsing rigid dichotomies, promoting ethics of care. Gives greater voice to Indigenous Peoples and local communities and their expertise. Can punish those who commit crimes against the earth creating a deterrent effect, but it does not dismantle the capitalist system	Environmental courts already exist. They vary operationally and there is a lack of a uniform definition on environmental crime. Courts cannot address transnational environmental crimes or crimes committed by transnational corporations. Requires communities with relational philosophies (which highlight the need for emancipatory processes to unlearn colonial modernities and co-create new imaginaries of human–nature relations)	More transformative potential

environmental laws and supply chain legal measures have significant limitations in this regard. Such laws continue to reinforce anthropocentrism and fail to transform (hence likely reproducing) capitalist relations, while potentially having some localized benefits, but leaving political logics and ontologies unchallenged. Earth jurisprudence and RoN are a significant step forward. These will have most efficacy when Indigenous and relational philosophies are embraced more broadly in society and in their design, e.g. granting naturehood to persons in mainstream ontology and amplifying relational philosophies in communities or co-creating these where absent. These advances can be put into practice in contexts where environmental courts and Restorative Justice can be applied. Solely biocentric approaches risk the reinforcement of human–nature dichotomies. We recognize that more far-reaching changes are needed in justice systems and beyond in colonial modernity formations to recognize Indigenous and relational philosophies and allow space for speculations and prefiguring of alternative futures. Challenges of violence and insecurity stem from accumulation imperatives and colonial modernities and hence need to be countered by measures that tackle them, such as Ecocide deterrents and dismantling measures, while in the shorter term investing in peace building. Inclusion in the ICC is a long-term project for Ecocide. In the more immediate future, combining RoN, Ecocide and Restorative Justice can provide a practical way to re-balance concerns for human needs and ecological ones. This will give voice to communities that prioritize reciprocity and care as a step on the way towards opening more radical pluriversal futures, which involve ontological regeneration and changes. Achieving transformative change will require struggle and political coalitions, well-designed governmental levers and possibly eco-anarchist approaches and speculative art engagements which escape the entanglements of the nation state in capitalism and colonial modernities. Reframing the law and justice systems to embrace MTH philosophies and multispecies justice is needed, where this is linked to critical pedagogy and decolonial and relational artistic, academic and transdisciplinary action-research to challenge and shift public ontologies. The latter can help to escape from colonial modernities by creating new future sustainability possibilities. This can represent a step—for it is only a step—on a path towards more foundational shifts away from dominating and controlling colonial modernities to care-and solidarity-based ethics and formations.

Acknowledgements We would like to thank Rachele Girardi for her help in preparing the manuscript for submission.

Funding This article is part of the EU/Horizon Transformative Change for Biodiversity and Equity project which was funded by European Research Executive Agency.

Declarations

Conflict of interest No conflicts of interest were identified.

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