



# Fostering place-shaped responsibilities for biodiversity: An analytical framework with insights from the UK Overseas Territories

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## ABSTRACT

Accelerated human impacts on the earth system bring urgency to the question of how responsibility can be appropriately and justly distributed across scales and actors. Drawing together theory from international relations and human geography with empirical analysis on responsibilities for biodiversity, this paper has two aims: to develop a framework for examining responsibilities for biodiversity that is applied to the context of the UK Overseas Territories; and to draw out broader lessons for thinking about environmental responsibilities more generally. The analysis draws particular attention to the importance of place-shaped responsibilities for biodiversity, which emerge as localised narratives of responsibility that take account of the enabling and resisting conditions that matter in particular places. Applied in the context of biodiversity governance, this suggests a need to join up policy issues, embed equity, explore multiple meanings, bridge pro-active and retrospective responsibilities, and enhance the role of the social sciences in enabling responsibilities.

## 1. Introduction

The conservation and sustainable use of biodiversity are now acute concerns of governments worldwide. Following decades of research and deliberation, science and policy communities have recognised that halting the sustained degradation of ecosystems and loss of species will require transformational changes across social, technological and economic dimensions (Diaz et al., 2019). Indeed, the complexity and urgency of present environmental degradation is thought to need novel political arrangements in order to adequately respond (Biermann, 2014; Galaz, 2014). Scholarship seeking to support this so-called ‘earth system governance’ has identified the need for enhanced attention to the allocation of responsibilities for mitigating and remedying environmental impacts (Burch et al., 2019; Pattberg and Zelli, 2016). In this paper, I contribute to efforts to make sense of – and strengthen – responsibilities for environmental concerns through an analysis of responsibilities for biodiversity.

The first aim of this paper is to develop a framework for examining responsibilities for biodiversity that is worked through an empirical case study. I combine scholarship from international relations (Hansen-Magnusson and Vetterlein, 2021b) and human geography (Massey, 2004; Noxolo et al., 2012; Popke, 2003; Raghuram et al., 2009) to recognize responsibilities as more than an instrument of global governance (i.e. a mechanism to allocate obligations for environmental action

set out in an international agreement), and a legal mandate (i.e. a ruling of guilt determined following environmental harm), to recognize responsibility is also fundamentally an ideal and discourse underpinned by normative ideas about how the world should be in particular times and places, and who should be compelled to ensure this state is achieved. The framing adopted in this paper therefore takes responsibility to broadly refer to an assumed obligation held by an individual or collective that is defined by a pro-actively asserted or retrospectively decided mandate to avoid harm or to improve a given situation (Hansen-Magnusson and Vetterlein, 2021a: 7; Pellizzoni, 2004). This framing rests upon the contention that responsibilities for the environment are also situational and contingent: operating in different ways at different scales, and according to different cultures and materialities of human-nature relations. No doubt, this complexity presents a challenge for analysing and designing responsibilities. However, the analytical framework developed in this paper attempts to grapple with these complexities through paying attention to the narratives that structure responsible relations and the enabling and resisting conditions that shape their enactment.

The paper therefore begins with a reflection on the ways in which different academic traditions have sought to understand responsibility, and how these insights might inform an analytical framework for this paper. I then work with the framework to examine the empirical case of responsibilities for biodiversity in the UK Overseas Territories (UKOTs).

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The UKOTs are chosen for their internationally significant wildlife (Churchyard et al., 2016), which is subject to particular constitutional arrangements that play out across intersecting levels of governance. While the UKOTs are unique, examining this empirical case offers an opportunity to address the second aim of this paper, which is to draw out broader lessons from the analytical framework for thinking about environmental responsibilities more generally. The paper concludes with a discussion of how global governance arrangements for biodiversity might be nuanced and strengthened by attending to place-shaped responsibilities, including strong regard for the connections, disconnections and legitimization of multiple actors that are necessary to enable responsibilities in place and in practice.

## 2. Grappling with responsibilities for biodiversity

Biodiversity – the diversity of life on Earth – is a pertinent domain in which to consider responsibilities in earth system governance. Nature – in its myriad forms – is fundamentally entangled in people's lives as a source of food, livelihoods, cultural practices, and as the foundation of the environments in which they work, rest and play. The direct and indirect drivers of biodiversity loss implicate a range of actors, from landholders to polluters, and consumers to resource extractors (Diaz et al., 2019), and the question of who wins and who loses from action and inaction on biodiversity loss does not have straightforward answers (Schleicher et al., 2019; Trisos et al., 2021; Zaccai and Adams, 2012: 565). The complexity of human-nature relations is reflected in the relatively complex governance architecture of the biodiversity regime that cuts across multiple levels from the global to the local. At the global level, multilateral environmental agreements, such as the UN Convention on Biological Diversity (CBD, 1992) offer frameworks for nation states to set agendas and establish global norms, for the conservation and sustainable use of biodiversity. At sub-global levels, governance for biodiversity is shaped by a heterogeneous mix of national and subnational state actors, as well as diverse non-state actors, including private sector, civil society organisations, and partnerships between them (Kok et al., 2019: 7). The complexity of governance arrangements for biodiversity means that any analytical (or indeed policy) framework to consider responsibilities for biodiversity is going to be partial: revealing some things and concealing others.

There are, however, important insights that can be drawn from scholarship across a range of disciplines to think about responsibilities for biodiversity. In particular, responsibility has been increasingly considered important in both the scholarship and practice of international relations, where responsibility is seen as an instrument of governance for formally and informally allocating duties and obligations through international treaties, public-private partnership agreements, or in soft-law of goal setting (Hansen-Magnusson and Vetterlein, 2021a: 4). Significant examples of such responsibilities include obligations committed to as part of the Sustainable Development Goals (Biermann et al., 2017), or the moral and legal obligations arising from the UN Convention on Human Rights (Vetterlein and Hansen-Magnusson, 2020). As these examples attest, responsibility at the international level often places emphasis on pro-actively asserting responsibilities for voluntary action, rather than using force or sanctions to compel prescribed forms of action in others (Vetterlein, 2018). However, responsibility also has importance in legal settings with regards to retrospectively deciding and enforcing responsible action where duties of care set out in legislation or regulatory requirements have not been met, and in cases where loss and damage related to environmental harm are judicially determined (Phelps et al., 2019).

Scholarship in human geography has often sought to complement these political and legal conceptualisations of responsibility through recognising how responsibility also operates as an ideal and discourse that is tied to notions of morality, ethics and care that shape relations between people, places, and non-human others (Haraway, 2016; Massey, 2004; Popke, 2003: 298). Post-structuralist approaches to thinking

about responsibility have challenged the notion that predominates elsewhere that responsibility can be understood as something that can be individually assigned to autonomous rational subjects (Popke, 2006: 506). Rather they contend that responsibility should be understood as part of a collective agency: a form of responsibility towards others that arises “through the collective negotiation of rules, policies and practices that recognize and foster an ethos of care.” (Popke, 2006: 507) This differs from what is sometimes termed ‘collective responsibility’, where crowds or groups of citizens are identified as responsible agents. Rather, responsibility as collective agency includes a recognition of the different actors that adjudicate, resource, authorise, and willingly receive responsibilities in different contexts. Importantly, post-colonial scholars have also argued that responsibilities need to be allowed to be emergent and differentiated in context (Noxolo et al., 2012; Raghuram et al., 2009). They emphasise that some people and places “might also want to actively refuse some forms of responsible relationships that northern academics [and policy communities] want to imagine.” (Noxolo et al., 2012: 425, my own addition in square brackets) As Raghuram et al. (2009: 9) note: “lines of responsibility are not always clear because we have to always ask ourselves, responsibility in what spaces, places, times and for which people?” It is from this starting point that I work with the idea of *place-shaped responsibility* in this paper as a form of responsibility that is cognisant of and responsive to the places and peoples that are affected by it.

The multidisciplinary perspectives identified here add layers to the considerations that may be taken into account when conceptualising responsibility for analytical or practical purposes. Importantly, they highlight the need to understand responsibilities as plural, and to recognize that allocating responsibility requires negotiation, cooperation, and mutual understanding across different actors. In the following section, I draw upon these different literatures to inform a framework for exploring responsibilities for biodiversity in context.

## 3. Analytical framework

In order to grapple with responsibility as something that can be described, analysed and enabled in science and policy settings for biodiversity, there is value in experimenting with different conceptualisations of the term. Previous scholarship on responsibility has sometimes used categories for parcelling it up into something more tangible to think with (Hansen-Magnusson and Vetterlein, 2021a: 7). Here, I build on this scholarship in constructing an analytical framework to explore responsibilities for biodiversity (Fig. 1.). The core of this analytical framework systematises and expands upon a broad consideration of ‘who is responsible to whom about what and how?’ Specifically, it makes the important addition that responsibility requires a ‘speaker of responsibility’, which either asserts or decides upon the responsibility of self or of others (drawn from Hansen-Magnusson and Vetterlein, 2021a: 2–8). The speaker then typically defines the subsequent four elements, including: the subjects of responsibility (who is responsible?); the premise of responsibility (according to what motivation and temporality?); the authority of responsibility (by what authorisation?); and the objects of responsibility (what are they responsible for?). Of these elements, the subjects and objects are the most intuitive, and often the most explicitly stated. In the context of biodiversity, for example, the convention text of the CBD (as speaker) asserts that member states (as subjects) are responsible for conserving and sustainably using the objects of biological diversity and biological resources, respectively (CBD, 1992: 1). As a multilateral agreement, the authority of responsibility is drawn from the sovereign rights of states set out elsewhere in United Nations charters, and is underpinned by a premise of responsibility focused on proactively taking care of and using the environment in the national interest.

The premise of responsibility described here draws from the four dimensions of responsibility identified in Pellizzoni (2004), which combine the motivations and temporal aspects of responsibility that are

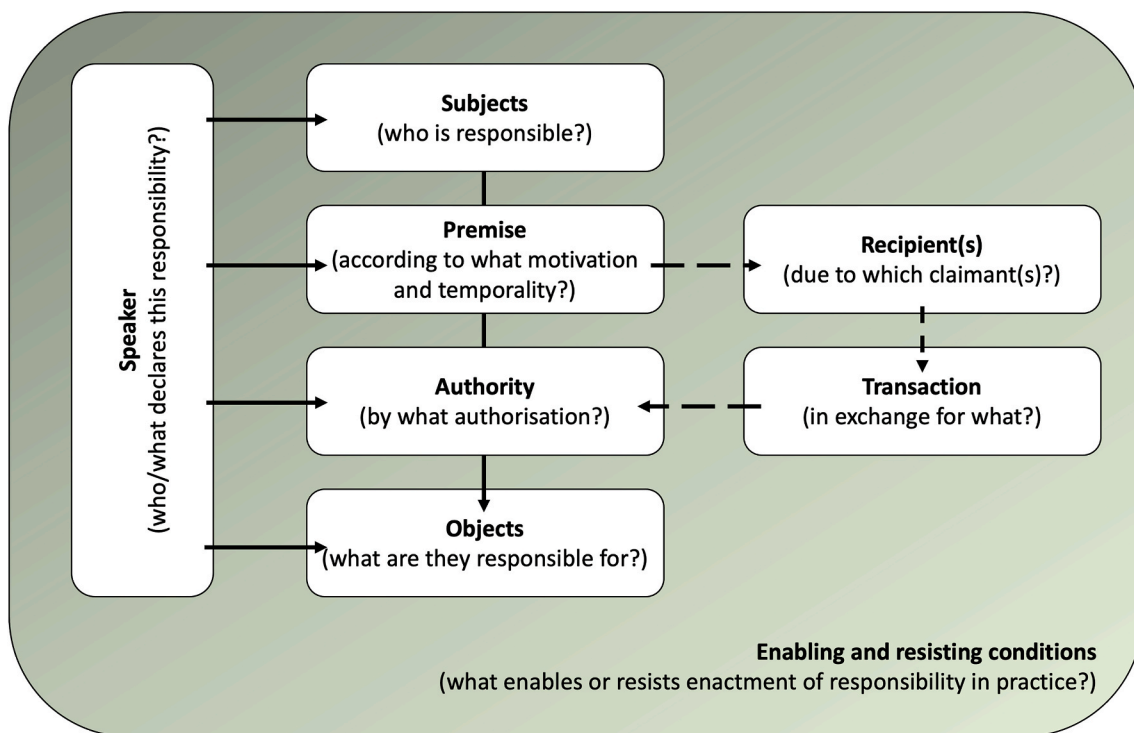


Fig. 1. Analytical framework to consider responsibilities for biodiversity.

deemed to be important in environmental governance (see my own adaptation in Fig. 2.). For the purposes of thinking about responsibilities for biodiversity, an initial four premises are recognised to be important, noting that these premises may operate concurrently, be differently interpreted, and the distinction between them may be blurred (i.e. Löfmarck et al., 2017; Sarkki et al., 2016). First, a premise of care is defined by a pro-actively asserted duty to avoid harm, which might be assumed by a national government that seeks to establish a marine protected area because biodiversity and its protection is deemed by multilateral agreement to be an obligation of the state. The premise of liability is defined by the same motivation but is often decided

retrospectively after failing to enact a duty of care. For example, liability may arise when an oil and gas company is deemed liable by environmental regulations for paying reparations following an environmentally-damaging oil spill. The premise of responsiveness, by contrast, is motivated by a pro-actively asserted promise to improve a situation, and might include the commitment of a conservation NGO to develop an adaptive management plan for an endangered species. Finally, the premise of accountability is based on a similar promise to improve a situation, but is decided retrospectively according to an assessment of the success or failure to meet that promise. For example, accountability might take the form of an electoral win or loss by a local



Fig. 2. Four premises of responsibility relevant for biodiversity combining the motivation (y-axis) and temporality (x-axis) in relation to environmental action (adapted from Pellizzoni, 2004).

government based on the extent to which they have delivered on environmental commitments that were made to voters.

Recognising that responsibility is relational, and that responsibility is often seen as being owed to another actor, the final two elements of the framework consider the question of 'to whom?' responsibility is owed and 'why?'. This includes: the recipients(s) of responsibility (due to which claimants?); and the transactions of responsibility (in exchange for what?). In the case of the CBD, the recipients of responsibility may be interpreted either as the citizens whose interests are represented by signatory governments in exchange for electoral support, or other member states of the CBD who exchange reciprocal rights and responsibilities with each other.

The elements of the framework are surrounded by the enabling and resisting conditions of responsibility (what enables or resists enactment of responsibility in practice?). These might otherwise be understood as the relevant contextual conditions that impact on responsibility in a given place and reflect the well-known maxim that 'context matters'. However, the explicit inclusion of these conditions as part of the framework is intended as a reminder that 'governance traps' emerge when responsibility is allocated to subjects, such as subnational jurisdictions, without the necessary authority, capacity and resources to enact it (i.e. Newell et al., 2015; Norman and Bakker, 2009) or when responsibility is allocated without regard for the needs, values and material relations that matter in the places that might be affected (Raghuram et al., 2009). For actors to become responsible agents, they not only need a recognised moral or legal duty, but also the authorities, resources, and capacities to act (Meisch, 2013; Wallbott, 2016).

This analytical framework provides a basis for examining how responsibilities for biodiversity might be understood in theory. However, there is a need to further explore the extent to which it is a useful way to think about responsibilities for biodiversity in practice. Furthermore, if – as the framework implies – enabling and resisting conditions are important to understanding how different places actively shape responsibilities, how can the complexities of the conditions be made more amenable to future empirical analysis? To address these questions, this paper now moves to examine responsibilities for biodiversity as they play out in the context of the UK Overseas Territories.

#### 4. Case and methodology

The UK Overseas Territories (UKOTs) are fourteen islands, archipelagos and peninsulas that are constitutionally tied to the United Kingdom as former British Crown Colonies (Cawley, 2015). Collectively, they harbour an abundance of unique wildlife across a range of iconic landscapes, from glacier topped mountains to coral reefs (Churchyard et al., 2016). There are a wide range of threats facing biodiversity in the UKOTs, including coastal development, extreme weather events, rising seas, ocean acidification, invasive species, overfishing, and plastic pollution (Loft, 2021; O'Leary et al., 2019; Weber and Weber, 2020). The UKOTs are a useful case to think about because they demonstrate in explicit terms the entanglement of history, geopolitics and economics as important dynamics in contemporary human relations with the natural world.

The environment is a devolved issue to the individual administrations of each of the UKOTs (Montana, 2022). These legislative and decision-making structures differ markedly, from the Tristan da Cunha Island Council to the Parliament of the Cayman Islands. The majority of UKOTs have departments of environment, conservation, fisheries or agriculture that take on management responsibilities for natural resources within their territories. And, non-governmental (civil society) organisations also play an important role within and across the territories supporting the UKOTs with research, fund raising, policy development and conservation actions. However, the UK retains responsibility in international law for the defence, security and good governance of the UKOTs, which includes their representation in the biodiversity-related conventions that have been extended to some, but

not all, of the UKOTs (Montana, 2022).

Although discussed here as a collective, the UKOTs are a highly diverse set of contexts, reflecting a range of historical, social, political, and biophysical conditions. Some UKOTs, such as those in the Caribbean, were implicated in the human and environmental exploitation of the Atlantic slave trade. Others, such as South Georgia and the South Sandwich Islands, have long been important sites for scientific research. Today, the diverse economies of the UKOTs centre around financial services, tourism, military bases, and other small-scale industries. However, despite their differences, they are tied together through their association with the UK and their predominantly small island status – being both limited in land area and population size (Montana, 2022).

To examine responsibilities for biodiversity in the context of the UKOTs, this research adopts an interpretive approach that focuses on the talk and text of individuals and organisations (following Bryman, 2015). The research applied qualitative data collection and analysis that proceeded in two-stages. First, policy documents and grey literature relevant to the sustainable use and conservation of biodiversity in the UKOTs were identified and collected. Documents for analysis were collected from online sources via key word searches on UK and UKOT government websites (policy documents, legislation and press releases) and websites of other relevant organisations, including public bodies in the UK (i.e. JNCC, Kew Gardens, etc.), NGOs in the UK (i.e. RSPB, Blue Marine, Pew Charitable Trust, etc.), and NGOs in the UKOTs (i.e. Jost van Dyke Preservation Society, Reef Keepers Association, etc.). A snowball sampling approach was used to broaden the identification of relevant organisations that were named in located documents. Second, semi-structured interviews were carried out with forty-five professionals from government departments, agencies, civil society organisations and scientists from the UK and UKOTs (note that the Pitcairn Islands, Cayman Islands, Sovereign Base Area of Cyprus, and Gibraltar were not represented in the data collection). Interviewees were identified from documents collected in stage one, and from participant lists in online and face-to-face workshops and meetings attended by the researcher, and were selectively sampled to represent a wide range of different roles. Interviewees were provided with information about the project via email and invited to participate on a voluntary basis. Interviews were conducted online using video call technology between September 2019 and February 2021 and lasted approximately 45–60 min each. Questions followed an evolving interview schedule, but all interviews included the direct questions: *Who is responsible for biodiversity in the UKOTs (or a specific UKOT)? And, what does responsibility look like in practice?* Interviews were transcribed for analysis and periodically reviewed to assess for theoretical saturation, whereby "new data no longer suggest theoretical insight or no longer suggest new dimensions to theoretical categories" (Bryman, 2015: 412), at which point interviews were then stopped. Policy documents and interview transcripts were analysed using computer assisted qualitative data analysis software (Atlas.ti) following a thematic analysis protocol (Bryman, 2015). Analysis focused on coding the interviews according to the elements of the analytical framework (using sub-codes: *object, subject, premise, authority, speaker, recipient, transaction, and enabling/resisting conditions*). The grouping together of narratives of responsibility were thereby determined inductively from the analysis.

Ethical approval for this research was obtained from the Central University Research Ethics Committee of the University of Oxford in June 2019. A positionality statement is included in Supplementary Materials, and the analysis is offered with humility and recognition of the considered relations that are already in place around biodiversity in the UKOTs and the lifelong commitments that individuals and organisations have made to improve the state of biodiversity across them. Of course, the narratives and conditions identified in this paper are contingent representations that are tied to the specific questions posed in this research and the modes by which I have analysed the data. They are therefore not complete representations of how governance arrangements are perceived in the UKOTs, nor are they immutable. It is

likely that in designing and implementing work to help conserve and enable the sustainable use of biodiversity, there are other mental models, frameworks and concerns that will enter into an understanding of responsibility. Indeed, there is also benefit in exploring and experimenting with alternative ways of thinking about responsibility that are not able to be captured by this narratively-structured way of thinking. However, these findings offer insights for thinking about responsibilities for the environment more broadly that can be taken into account.

## 5. Place-shaped responsibilities for biodiversity in the UKOTs

The analysis of place-shaped responsibilities for biodiversity in the UKOTs identified three dominant narratives of responsibility that were notably consistent across interviews and reports (Table 1.). Each narrative reflects a different distribution of agency across state and non-state actors in the UKOTs. But the narratives were notably also co-dependent and concurrent, reflecting attention to different objects of responsibility and the subjects mandated to be responsible for them.

The first narrative of responsibility is one of *environmental sovereignty*, which centres on the power and operation of the state (be it an administration in the UK or the UKOTs) as a distinct environmental actor with specific rights and responsibilities over the environment.<sup>1</sup> This narrative reflects a recognition of top-down forms of power that are typically associated with the nation state, including the external (supranational) and internal (national) authorities that are claimed and performed by states in the international system (Paterson, 1997). Indeed, the narrative of environmental sovereignty focused on the UKOT or UK governments themselves as the legally authorised and centralised locus of power for environmental action. This narrative depicted responsibility for biodiversity as tied to legislative authority, executive decision-making authority, budgetary authority and the authority to conclude international treaties. And, the allocation of these responsibilities are typically defined by legal texts and policy documents, such as the constitutions of each of the UKOTs or in the text of multi-lateral environmental agreements signed by the UK (see Montana, 2022).

The UK Government's Blue Belt Programme to formalise the protection of over 4 million square kilometres of ocean around some of the UKOTs (Cefas, 2017) is one current example of this narrative in action. The programme is an example of a command-and-control type intervention commonly associated with state-based forms of sovereignty. The Programme is led by the UK government who provide the funding, strategy and coordination, but recognises the constitutional devolution of the environment with the principle that the UKOT governments ultimately "take the decision on what it is they wish to do with their marine environment and their resources and their communities." (UK Government Interview, June 2020) The Blue Belt Programme can be understood as both an enactment of the UK's international obligations determined in the CBD Aichi Targets to ensure the protection of over 10% of marine areas by 2020, and a pro-actively asserted promise of the Conservative Party in their 2015 election manifesto to strengthen ocean protection around the UKOTs.

The second narrative is one of *environmental management*, focused almost exclusively on UKOT government departments with specific mandated responsibilities to oversee human-environment relations, such as fisheries or tourism. This narrative retains aspects of a top-down state-led form of power, but places it more at the interface with people

and their interactions with the environment. As a concept, environmental management has been defined as the "formulation and implementation of environmental laws, policies and regulations by officials acting with the legal and coercive backing of the state" (Bryant and Wilson, 1998: 323). Across the UKOTs the narrative of environmental management consistently focused on authorities related to administrative authority, environmental oversight and enforcement authority, including the ability to issue fines for transgressions that are legally mandated to specific government departments and ministries. However, in some cases environmental management is also delegated to NGOs, such as the British Virgin Islands National Parks Trust that oversee national parks or the Turks and Caicos Reef Fund that facilitates mooring sites for tourist operators. As these examples show, the narrative of environmental management typically relies on the object of biodiversity being carved up into specific components to be addressed by different actors, be it for example, agriculture, fisheries, natural resources, tourism, or the environment.

Across the UKOTs, the most prominent example of environmental management relates to fisheries. Responsibility for overseeing fisheries in the UKOTs is typically allocated to government departments and while the specific arrangements are distinct across the territories, there is a common framework of licensing, monitoring and enforcement that cuts across them. In the Caribbean territories, such as Anguilla, fisheries are largely classed as artisanal involving local resident fishers on small boats harvesting near shore marine species. By contrast, in South Georgia and the South Sandwich Islands, there is a large-scale commercial fishery involving vessels from countries such as Norway and Chile, targeting toothfish, icefish and krill. Fisheries are predominantly managed by small teams within the UKOTs themselves, although the UK does represent the UKOTs in international forums such as the Regional Fisheries Management Organisations.

The third narrative of responsibility is one of *environmental stewardship*, which foregrounds the responsibility of 'everyone' from businesses to NGOs, and schools to scientists, to assume both moral and legal duties to take responsible action with regards to particular aspects of biodiversity. This narrative by contrast reflects a more bottom-up and networked form of power. Environmental stewardship has been defined as "the actions taken by individuals, groups or networks of actors, with various motivations and levels of capacity, to protect, care for or responsibly use the environment in pursuit of environmental and/or social outcomes in diverse social-ecological contexts." (Bennett et al., 2018) For the UKOTs, the narrative of environmental stewardship suggested that the subjects and objects of responsibility were less likely to be explicitly codified in legal texts and mandates, and were instead defined by donor commitments, professional codes, social norms and personal preferences that cut across individuals and organisations.

There were many examples of environmental stewardship in the UKOTs. Relevant environmental actions included endangered species conservation interventions (i.e. the Caicos Pine Recovery Project on the Turks and Caicos Islands), the development of environmentally-sensitive tourism (i.e. the code of conduct for swimming with whale sharks on St Helena), or invasive species management projects (i.e. the Gough Island mouse removal). These projects are typically, but not always, NGO-led and seek to bring a diverse array of actors together, from governments, NGOs, scientific researchers and schools to respond to an environmental threat, recognising that each had a distinctive role to play. One interviewee emphasised that the support and the upkeep of threatened sites and species should: "try to have as much community and non-government involvement as you can." (UKOT Government Interview, July 2020) However, despite the positive portrayal of environmental stewardship, some interviewees noted that there was a general view in the community of their UKOTs that looking after nature "is the government's responsibility" (UKOT Government Interview, June 2020). As such, outside of NGOs, the narrative of environmental stewardship was seen more as an ideal than a well-developed reality.

Attending to place-shaped responsibilities recognises that multiple

<sup>1</sup> The narratives identified for the UKOTs may be relevant to other cases, and for this reason, the chosen terminology has been left open to be experimented with and revised, rather than fixed frameworks for environmental governance: i.e. referring to environmental sovereignty, rather than government, because if such an analysis were to be extended, the kinds of actions that constitute environmental sovereignty may also be enacted by other private land owners or Indigenous communities.

**Table 1**

Narratives of responsibility identified in the UK Overseas Territories, including subject, object, mode, speaker and enabling conditions of responsibility.

	Speaker	Subject	Object	Premise	Authority	Recipient/Transaction
Environmental sovereignty	Constitutions; Multilateral Environmental Agreements	UKOT and UK governments	The environment, e.g. 'Blue Belt' Marine Protected Areas	Care; Responsiveness; Accountability (risk of)	Legislative authority; Executive decision-making authority; Budgetary authority; International commitments	Citizens of UKOTs/ Continued support for UK association; UK voters/ Electoral support, Other sovereign states/Reciprocal benefits, ...
Environmental management	Mandates; Mission statements; Relevant legislation	UKOT Government Departments (delegated to NGOs in some cases)	Natural resources, e.g. Fisheries management	Care; Liability (risk of)	Administrative authority; Environmental oversight; Enforcement authority	Ministers/Funding; Citizens/Social licence to operate, ...
Environmental stewardship	Codes of conduct; Donor expectations; Social norms; Personal attitudes	'Everybody', including community groups, NGOs, businesses, scientists, etc.	Threatened species and sites, e.g. Caicos pine	Care; Responsiveness; Accountability (risk of)	Personal and professional actions	Citizens/Social licence to operate; Customers/ Business; Donors/Funding; Each other/Reciprocal benefits, ...

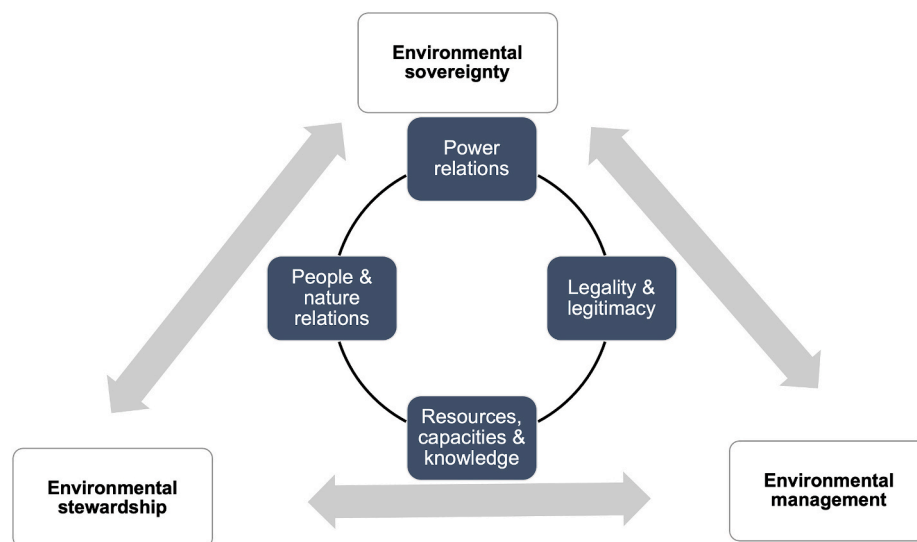
narratives of responsibility can co-exist and support one another in a particular place. In the case of the UKOTs, the prominence of the three identified narratives is perhaps unsurprising to those familiar with thinking about environmental governance. The presence of top-down state-led environmental action, supported by the administrative architecture of a civil service to oversee implementation, as well as a bottom-up more networked form of action facilitated through NGOs and collaborations with scientists and conservation professionals is conventional in many countries. However, there is still value in questioning how and why these shorthand narratives become so collectively shared across a wide community of people, and the work that they do in making some forms of responsibility appear natural and others not. The findings suggest that these narratives are a shorthand method (or mental model) used by those interviewed to rapidly arrive at a conclusive answer about who they think is responsible for biodiversity in the UKOTs and why. The narratives might therefore be seen to embody modes of 'knowing governance' (Voß and Freeman, 2016: 3), by which particular understandings of how to organise governments, civil society and scientific organisations to 'oversee', 'manage', or 'care' for biodiversity in the UKOTs are turned into collective knowledge about how governance is done. The narratives identified and reinforced by the analytical framework therefore embed ideas about the roles and responsibilities of different actors implicated in relations between people and biodiversity, determining what appropriate action looks like in practice. To better understand how place-shaped responsibilities are important, however,

the narratives need to be extended by attention to the heretofore externalised enabling and resisting conditions in the context of the UKOTs.

## 6. Grappling with enabling and resisting conditions of responsibility

It is widely acknowledged that context matters to the enactment of responsibility. However, there is the challenge of developing ways of thinking about responsibility that can take account of context without analytical frameworks becoming over-determined. The empirical results from the case of the UKOTs provide a fruitful example for thinking through how the enabling and resisting conditions might be made more amenable to empirical analysis by highlighting important focal areas and pointing towards questions that analysts might ask in scrutinising or designing place-shaped frameworks of responsibility for biodiversity. These focal areas were not particular to any one of the three narratives of responsibility identified, but rather cut across them (Fig. 3.). The examples used to illustrate these important focal areas are not to generalise about the UKOTs (which are each highly unique), but to show the kinds of issues that arise when attention is directed at these enabling and resisting conditions.

The first focal area of enabling and resisting conditions is **power relations**. In the case of the UKOTs, these played out most strongly in relation to the colonial identity of the inhabited UKOTs as non-self-



**Fig. 3.** The three narratives of responsibility identified for biodiversity in the UK Overseas Territories (outer triangle), and the focal areas of enabling and resisting conditions that mediate them (inner circle).

governing territories. Despite the constitutional devolution of the environment to the UKOTs, interviewees noted that the balance of powers between the UK and the UKOTs was highly variable and dependent upon the enabling and resisting conditions in different UKOTs (see for further discussion Montana, 2022). There was a lot of tension identified by interviewees about whose priorities, values, and needs are being attended to in the definition of responsible action for biodiversity. There is a strong rhetoric around the UKOTs in relation to their self-determination: the need for the UKOTs to be given the freedom to decide their own trajectories. However, inequalities in access and control over resources, capacities and knowledge (see below) places limitations on this, with those UKOTs that are more financially independent from the UK also being seen as the most autonomous. Similar power struggles operate across environmental management, whereby different government departments are more enabled than others to enact their allocated responsibilities. Planning departments in some of the Caribbean UKOTs, for example, have considerably more sway over the progress of coastal development than environment departments. The question raised by this focal area then is: *whose priorities, values, and needs are being attended to in responsible action, and how are appropriate actions being decided?*

The second focal area of enabling and resisting conditions is **legality and legitimacy**. In the UKOTs, there is a clear emphasis on the importance of ensuring legal authority is in place to define jurisdictions of responsibility by different actors, as well as the required legitimacy that enables different actors to act. There were noted tensions related to the distribution of legal mandates, such as for fisheries, tourism, protected areas, or terrestrial ecosystem management. One UKOT Government interviewee, for example, noted that there was a legal gap in the allocation of responsibility for marine parks management and that: “Right now, legally nobody is responsible for marine parks management. It doesn’t fall under the department’s regulations.” (UKOT Government Interview, July 2020) There were also tensions where those with legal mandates to take environmental action were reluctant or unable to do so often due to lack of resources. Interviewees noted the importance of UKOT and UK-based NGOs in filling these resource gaps, but noted that NGOs sometimes lack the required local legitimacy to do so. As one interviewee explained, efforts to run education and awareness campaigns about the marine environment by an NGO in a UKOT was at times challenged by members of the public, who questioned: “Why are you so vocal on social media? Why are you going into schools? You don’t have any legal jurisdiction here. Why are you doing this work?” (UKOT NGO Interview, July 2020) The question raised about legality and legitimacy then is: *who can or cannot legally or legitimately act responsibly, when, where and how?*

The third focal area of enabling and resisting conditions is **resources, capacities, and knowledge**. For the UKOTs, the extent to which governments and their environment departments have the resources, capacities and knowledge that they need for environmental action was a concern across interviews. The environmental management of fisheries, for example, is recognised to be highly limited in some cases by small operational budgets, and the absence of key equipment such as boats for carrying out enforcement. Environmental governance in the UKOTs is typically carried out by very small teams, and interviewees remarked about the common challenge of staff-turnover where accumulated knowledge and experience is lost as staff leave to other positions elsewhere. The establishment of effective data collection and management plans for the UKOTs was seen as one way in which to ameliorate the challenge of lost capacities. If environmental data could be collected and effectively stored then institutional baselines could be maintained. As elsewhere, knowledge was seen by many as key to supporting responsible decision making. As a UK Government Scientist explained, developing a clear sense of where threatened plants and animals are located across the UKOTs can ensure that when a request for planning permission is submitted for development “they might think twice and then at least know they are doing something wrong if they approve it.” (UK Government Scientist Interview, 2020) Here, the

question raised is: *who has the resources, capacities, and knowledge that are needed to act responsibly, and how are they shared and maintained?*

The fourth focal area of enabling and resisting conditions is **people and nature relations**. In the UKOTs, these were both cultural (i.e. traditions) and material (i.e. physical features and processes). These relations between people and their environments concern the ways in which long-standing cultural practices, identities and traditions shape the ways in which responsibility might be perceived. As one interviewee noted: “If you are born on an island you are innately connected to nature, so I think it is part of your DNA that you have an affinity with nature.” (UKOT NGO Interview) Indeed, many of the endemic species of the UKOTs also have important cultural associations. For example, native species of conservation concern, such as the national tree of the Turks and Caicos Islands, the Caicos Pine, also form part of the national living memory in culture and traditions (Manco et al., 2016). Important people and nature relations also include natural disasters and the continuing resource extraction needs of communities, such as subsistence fishing, which remain crucial to understanding place-based responsibilities. As small islands, many of the territories are united in their experience of environmental disturbances as well as on their reliance on a small set of local resources. As such, a central question might also be: *how do people-nature relations, physical impacts of natural disasters, and resource dependencies on nature shape or limit responsible action?*

Interviewees were clear that biodiversity in the UKOTs is faced with persistent threats, and that the above narratives of responsibility are insufficient unless the enabling conditions of responsibility for biodiversity are strengthened and resisting conditions better navigated. Many also offered suggestions for how this could be – and is already being – enhanced. Power relations stemming from the colonial and decolonial relations of the UKOTs and the UK, for example, are navigated through processes such as the Joint-Ministerial Council, which allows the UKOTs to “speak together” and “back each other up” when engaging with the UK on environmental issues (UK NGO Interview 2019). The legitimacy for governments and other actors to take environmental action can be strengthened, according to another interviewee, by ensuring that the other immediate concerns of the UKOTs, such as the maintenance of infrastructure and ensuring social welfare, are supported in tandem, rather than in competition, with environmental action. As the representative of a UK-based NGO explained, conservation has to be associated “with something beneficial, economically, socially, in terms of soft benefits, bringing more attention to their island, bringing tourism, bringing further philanthropic donations, etc. The two must be inextricably entwined.” (UK NGO Interview, July 2020) It is arguably through the identification and navigation of these enabling and resisting conditions that the narratives of responsibility for biodiversity are able to be put into practice.

## 7. Securing responsibilities for biodiversity across scales

According to the 2019 Global Assessment Report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), meeting global goals to halt the loss of biodiversity and achieve sustainable development will require transformative change across social, technological, and economic dimensions, as well as new approaches to innovative governance that are inclusive, informed, adaptive and integrative (Diaz et al., 2019). Given the insights derived from thinking about responsibilities for biodiversity in the case of the UKOTs, what effective routes might there be to securing responsibilities for biodiversity as part of this shift to more innovative governance approaches across scales? In this section, I consider how to further responsibilities in earth system governance, and to consider what the implications might be for biodiversity in implementing global governance processes. I offer this discussion not to prescriptively suggest that responsibility is a singular problem to be ‘solved’, but rather to further the conversation about how place-shaped responsibilities might be fostered as part of enabling transformative change going forward

(Scoones et al., 2020).

The post-2020 Global Biodiversity Framework (GBF) is currently under negotiation as part of the CBD. The GBF follows previous international environmental agreements in setting out a range of both quantified and aspirational goals and targets for countries to commit to, as well as mechanisms for financing and monitoring their implementation (Biermann et al., 2017; Leadley et al., 2022). Those analysing the GBF have sought to draw lessons from other international environmental agreements, such as the Paris Agreement of the UN Framework Convention on Climate Change (UNFCCC), and indeed to ensure that the GBF is specifically shaped around the priorities for the conservation and sustainable use of biodiversity (Pattberg et al., 2019; Perino et al., 2022). As I contend here, lessons can also be learnt from considering the arrangements for biodiversity in specific contexts such as the UKOTs.

In thinking about the allocation of responsibilities for biodiversity, non-state actors can have important contributions to make (Perino et al., 2022). This is highlighted in the case of the UKOTs, where NGOs play an important role in species recovery, nature restoration, research, fundraising, education campaigns, and more. The importance of non-state actors is also clear in settings where businesses and major industries (including construction, manufacturing, agriculture, etc.) have a significant role in using and destroying biodiversity (Smith et al., 2020), and where Indigenous peoples and local communities have long-standing customary relations to land and sea (Fleischman et al., 2022; Joji and Maurizio Farhan, 2021). Scientific advances in understanding telecoupled dependencies that people hold with distant biodiversity through supply chains and other mobilities such as travel also inscribes a need to take account of forms of 'remote responsibility' that enrol external non-state actors across multiple scales (Perino et al., 2022). The research on the UKOTs suggests that fostering a wider set of legitimised actors that contribute to enabling responsibilities for biodiversity and help to make narratives of responsibility work in practice. This might also include recognising those actors that are needed for the enablement of responsibility, but are heretofore excluded from simple narratives. This might require the addition, for example, of an additional element for 'subsidiary subjects of responsibility' to the analytical framework that reflect the question of 'supported by who?'. Taking account of and maximising the potential contributions of state and non-state actors to the GBF has been recognised and advocated, by scholars and practitioners alike, so that it is "relevant for a whole of government and a whole of society approach" (Perino et al., 2022). But doing so within the context of a multilateral setting is not always straightforward. The goals and targets of the GBF risk re-telling a narrow narrative of responsibility that foregrounds environmental sovereignty enacted by nation states as the chief subjects and recipients of responsibility, which can overemphasise the importance of command-and-control types interventions – such as protected areas – and side-line place-based relations. Bringing responsibilities down to earth also requires attending to joining up policy issues, embedding equity, exploring multiple meanings, bridging pro-active and retrospective responsibilities, and enhancing the role of the social sciences in enabling responsibilities.

Observations of environmental governance-in-situ reveals a wide range of parallel and competing agendas. A previous study of responsibilities for biodiversity in Finland, for example, found that other policy agendas are often in conflict with the biodiversity agenda and although emphasis had been placed on fostering ownership across sectors and scales, 'responsibility gaps' prevailed between environmental and other policy sectors (Sarkki et al., 2016). Similar tensions were evident in the UKOTs. Focusing on responsibility for biodiversity, therefore, requires having an eye on the parallel responsibilities that may be seen as competing agendas. And scholarship suggests that those tasked with focusing on environmental issues would do well to listen, communicate, and negotiate joint agendas with their counterparts working in other sectors, such as business and the built environment (Scott et al., 2022). Indeed, other government departments and

non-government actors may even be enrolled as subsidiary subjects to explicitly support subjects of responsibility through finance, knowledge brokering, resource sharing, and more (Pattberg et al., 2019). Furthermore, non-state actors can contribute to strengthening the accountability of states in implementing their commitments (Ulloa, 2022).

Indeed, there is scope for the premises of responsibility that are evoked in environmental governance to be given more critical attention (Pellizzoni, 2004; Sarkki et al., 2016). There is already clear efforts to ensure that compliance and accountability mechanisms for the promises made under the GBF are effectively tracked (Xu et al., 2021). As the analysis here suggests, environmental managers and scientists have a tendency to be present and future focused in their thinking about responsibilities for biodiversity.<sup>2</sup> This is perhaps understandable given the existence of current prominent threats to biodiversity in these territories today. However, if some of the underlying resisting conditions of responsibility are to be better understood and navigated, more attention may be given to temporalities of responsibility according to a *longue durée* that acknowledges histories of land clearance, colonialism, slavery, economic development, and global trade, to name but a few. Retrospective responsibilities may also be relevant considerations when developing policies, such as zero-deforestation policies, which can place the burden of due diligence and changed practices onto producers that are already locked-in to production practices driven by historic consumer patterns in other countries (i.e. McDermott et al., 2020). If indeed global goal setting is an important instrument for earth system governance, then attention to responsibilities might suggest that ambitious pledges that proactively assert desired future global directions of travel might be effectively coupled with comprehensive historic accounting of retrospective responsibilities that can ensure equity is centred within the process.

Embedding equity into processes of designing and implementing governance frameworks, so that global goals do not drive perverse outcomes when they hit the ground means more than providing adequate finance as an enabling condition (McDermott et al., 2022; Meyfroidt et al., 2022). Fostering equity is likely also to include recognising and enabling opportunities for disconnection and refusal that have been advocated for in post- and de-colonial scholarship on responsibility and care (Noxolo et al., 2012: 425; Raghuram et al., 2009), as well as enhanced focus on responsiveness based on more participatory knowledge and decision-making processes as part of environmental governance (noted in Pellizzoni, 2004). There is therefore a need to be attentive to the fact that Indigenous peoples and local communities may demand different configurations of responsibility that align better not only with their worldviews and values, but also local economies, systems of livelihood, and established modes of governance (i.e. customary land tenure and territorial management, see for example Armitage et al., 2020; Bernstein et al., 2021; Joji and Maurizio Farhan, 2021). And it is for this reason that scholars have challenged the reliance on global mapping projects and universal indicators as guides for environmental responsibility without being cognisant of the values, needs and priorities of already marginalised local communities that may otherwise be obscured from these modes of knowledge production (i.e. Fleischman et al., 2022; Wyborn and Evans, 2021). Indeed, given the importance of knowledge in shaping understandings of governable objects and values that are held about them, there is a need to be critical of who has access

<sup>2</sup> The centring of narratives of responsibility on pro-active premises in this paper is partly an artefact of the interviewees selected for the study. No doubt, the inclusion of interviewees working on environmental litigation or community groups campaigning for environmental justice may have resulted in a wider range of narratives that also include a more significant consideration of liability and accountability. However, the focus on pro-active premises of responsibility amongst environmental managers also functions to avoid the more politically-charged consideration of past harm caused to the environmental, social and economic conditions in the UKOTs.

to information and the kinds of information that counts as appropriate evidence to inform and legitimise environmental action.

There is also an opportunity in allowing place-shaped narratives of responsibility to open up the meanings of different elements – be it the speaker, subjects, objects, premises, authorities, recipients, or transactions – in order to strengthen responsible relations (i.e. Bernstein et al., 2021; Joji and Maurizio Farhan, 2021; McDermott et al., 2022). Scholarship has previously shown that the definition and representation of objects of responsibility – the way nature is understood in public and policy discourses – can be a powerful lever of change that not only facilitates shift in policy, but also the reorganisation of social relations, allowing new coalitions of actors that care about the environment to form (i.e. Agrawal, 2005; Haraway, 2016; Jasanoff, 2004; Thompson, 2004). Reframing understandings of different natures (and their place-based entanglements with people) therefore becomes an important site for strengthening responsibilities in earth system governance as much as tightening the arrangements that formalise responsibilities in international law. Indeed, if people and nature are together advanced as joint priorities of plural desirable futures, then biodiversity itself might be rethought as to whether it is still the most appropriate object for responsibility in global governance (Wyborn et al., 2021). Indeed, in response to the IPBES Global Assessment, it may be that transformative change itself could become an object of responsibility within the GBF (Bulkeley et al., 2020).

Fostering place-shaped responsibilities for biodiversity will benefit from a stronger engagement with the critical and interpretive social sciences in documenting and deliberating the kinds of responsibilities that are equitable and appropriate in different places. There is a need for more localised analyses and social theory-informed reflection to support the development and implementation of governance agendas. Alongside important pragmatic questions about how responsibility should be allocated and enabled, there are also critical questions that are needed to interrogate the implications of these decisions: including questions, such as, Who should be enabled to be responsible and who shouldn't? Who should decide? What norms of citizenship are being evoked and embedded in the use of narratives of responsibility? What forms of nature are being represented as desirable? Efforts to unsettle responsibility – as called for by post-colonial scholars – is not intended to make the allocation of responsibility more difficult, but rather to make it more responsive to those who are often placed on the receiving end of responsible actions: It is “a means of opening possibilities, rather than closing them.” (Popke, 2003: 301) Social sciences can contribute to this challenging but fruitful work.

## 8. Conclusion

The growing prevalence of responsibility in the multilateral system is seen as a response to growing recognition of differences in the values, meanings, interests, and rights of different parties in the international arena (Vetterlein, 2018). In this context, this article offers a partial response to the question posed by earth system governance scholars about the way responsibilities for action should be appropriately and justly distributed across different scales and amongst state and non-state actors for global environmental change (Burch et al., 2019). The overarching contribution of the paper is a synthetic analytical framework for examining responsibilities for biodiversity, which is explained and interrogated here in relation to the biodiversity of the UK Overseas Territories. As set out in the discussion, this understanding offers some scope for probing the development of global governance frameworks currently emerging for biodiversity, and ultimately suggests a need for more ontological pluralism with regards to the question of ‘who is responsible to whom about what and how?’

Recognising the collective agencies of responsibility for biodiversity should not be reductively read as an endorsement of the contention that everyone is responsible to everyone else, and hence no one is responsible (a ‘governance trap’ identified in relation to climate change where “both

the governing and the governed seek action from the other but where none is forthcoming” in Newell et al., 2015: 536). Instead, it suggests that responsibilities for environmental concerns are inescapably complex. They are underpinned by relations that are both conceptual and organisational, place-based and translocal, and they are shaped by a wide range of enabling and resisting conditions. It is the intention of this paper to suggest that these complexities can still be understood in satisfactory ways without resorting to what is sometimes called ‘distributed irresponsibility’, but that doing so will take challenging and careful place-based work to get right. If scholars are to attend to the ambiguous moral basis that has been noted for the Anthropocene (Pattberg and Zelli, 2016: 730), then there is value in placing a greater emphasis on the place-shaped responsibilities that weave themselves around the surface of the planet. In this respect, understanding responsibility in earth system governance will have to walk the tightrope between globalized governance frameworks that call for unity and collective action, and the diverse and contingent relations that make peopled-places such as the UKOTs culturally, geologically, and biologically unique priorities for protection.

## CRedit authorship contribution statement

**Jasper Montana:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendix A. Supplementary data

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## References

- Agrawal, A., 2005. *Environmentality: Technologies of Government and the Making of Subjects*. Duke University Press, Durham.
- Armitage, D., Mbatha, P., Muhl, E.-K., Rice, W., Sowman, M., 2020. Governance principles for community-centered conservation in the post-2020 global biodiversity framework. *Conserv. Sci. Pract.* 2, e160.
- Bennett, N.J., Whitty, T.S., Finkbeiner, E., Pittman, J., Bassett, H., Gelcich, S., Allison, E. H., 2018. Environmental stewardship: a conceptual review and analytical framework. *Environ. Manag.* 61, 597–614. <https://doi.org/10.1007/s00267-017-0993-2>.
- Bernstein, J., Heinz, V., Schouwink, R., Meunier, M., Holland, E., Roe, D., 2021. *Strengthening the Foundational Elements of the Post-2020 Global Biodiversity Framework*. IIED, London.
- Biermann, F., 2014. *Earth System Governance: World Politics in the Anthropocene*. MIT Press, Cambridge, MA.
- Biermann, F., Kanie, N., Kim, R.E., 2017. Global governance by goal-setting: the novel approach of the UN Sustainable Development Goals. *Curr. Opin. Environ. Sustain.* 26–27, 26–31. <https://doi.org/10.1016/j.cosust.2017.01.010>.
- Bryant, R.L., Wilson, G.A., 1998. Rethinking environmental management. *Prog. Hum. Geogr.* 22, 321–343. <https://doi.org/10.1191/030913298672031592>.
- Bryman, A., 2015. *Social Research Methods*, fifth ed. Oxford University Press, Oxford.

- Bulkeley, H., Kok, M., Dijk, J.v., Forsyth, T., Nagy, G., Villasante, S., 2020. Moving towards Transformative Change for Biodiversity: Harnessing the Potential of the Post-2020 Global Biodiversity Framework. Report Prepared by an Eklipse Expert Working Group. UK Centre for Ecology & Hydrology, Wallingford, UK.
- Burch, S., Gupta, A., Inoue, C.Y.A., Kafagianni, A., Persson, A., Gerlak, A.K., Ishii, A., Patterson, J., Pickering, J., Scobie, M., Van der Heijden, J., Vervoort, J., Adler, C., Bloomfield, M., Djalante, R., Dryzek, J., Galaz, V., Gordon, C., Harmon, R., Jinnah, S., Kim, R.E., Olsson, L., Van Leeuwen, J., Ramasar, V., Wapner, P., Zondervan, R., 2019. New directions in earth system governance research. *Earth Syst. Gov.* 1, 100006 <https://doi.org/10.1016/j.esg.2019.100006>.
- Cawley, C., 2015. *Colonies in Conflict: the History of the British Overseas Territories*. Cambridge Scholars Publishing, Newcastle upon Tyne.
- CBD, 1992. Convention on biological diversity. United Nations, Online: <https://www.cbd.int/doc/legal/cbd-en.pdf>.
- Cefas, 2017. *Introducing the Blue Belt*. Cefas. Marine Management Organisation, Lowestoft.
- Churchyard, T., Eaton, M.A., Havery, S., Hall, J., Millett, J., Farr, A., Cuthbert, R.J., Stringer, C., Vickery, J.A., 2016. The biodiversity of the United Kingdom's Overseas Territories: a stock take of species occurrence and assessment of key knowledge gaps. *Biodivers. Conserv.* 25, 1677–1694. <https://doi.org/10.1007/s10531-016-1149-z>.
- Diaz, S., Settele, J., Brondizio, E.S., Ngo, H.T., Agard, J., Arneeth, A., Balvanera, P., Brauman, K.A., Butchart, S.H.M., Chan, K.M.A., Garibaldi, L.A., Ichii, K., Liu, J., Subramanian, S.M., Midgley, G.F., Milosavljevic, P., Molnar, Z., Obura, D., Pfaff, A., Polasky, S., Purvis, A., Razzaque, J., Reyers, B., Chowdhury, R.R., Shin, Y.J., Visseren-Hamakers, I., Willis, K.J., Zayas, C.N., 2019. Pervasive human-driven decline of life on Earth points to the need for transformative change. *Science* 366, eaax3100. <https://doi.org/10.1126/science.aax3100>.
- Fleischman, F., Coleman, F., Fischer, H., Kashwan, P., Pfeifer, M., Ramprasad, V., Rodriguez Solorzano, C., Veldman, J.W., 2022. Restoration prioritization must be informed by marginalized people. *Nature* 607, E5–E6. <https://doi.org/10.1038/s41586-022-04733-x>.
- Galaz, V., 2014. *Global Environmental Governance, Technology and Politics: the Anthropocene Gap*. Edward Elgar, Cheltenham.
- Hansen-Magnusson, H., Vetterlein, A., 2021a. Responsibility in international relations theory and practice: introducing the handbook. In: Hansen-Magnusson, H., Vetterlein, A. (Eds.), *The Routledge Handbook on Responsibility in International Relations*. Routledge, Abingdon, Oxon, pp. 1–27.
- Hansen-Magnusson, H., Vetterlein, A., 2021b. *The Routledge Handbook on Responsibility in International Relations*. Routledge, Abingdon, Oxon.
- Haraway, D.J., 2016. *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press, Durham.
- Jasanoff, S., 2004. Heaven and Earth: the politics of environmental images. In: Jasanoff, S., Martello, M.L. (Eds.), *Earthly Politics: Local and Global in Environmental Governance*. MIT Press, Cambridge, MA; London, pp. 31–52.
- Joji, C., Maurizio Farhan, F., 2021. Negotiating the futures of nature and cultures: perspectives from indigenous peoples and local communities about the post-2020 global biodiversity framework. *J. Ethnobiol.* 41, 192–208. <https://doi.org/10.2993/0278-0771-41.2.192>.
- Kok, M., Widerberg, O., Negacz, K., Bliss, C., Pattber, P., 2019. Opportunities for the Action Agenda for Nature and People. PBL Netherlands Environmental Assessment Agency, The Hague.
- Leadley, P., Gonzalez, A., Obura, D., Londoño-Murcia, M.C., Millette, K.L., Radulovic, A., Rankovic, A., Shannon, L.J., Archer, E., Armah, F.A., Bax, N., Chaudhari, K., Costello, M.J., Dávalos, L.M., Roque, F.d.O., DeClerck, F., Dee, L.E., Essl, F., Ferrier, S., Genovesi, P., Guariguata, M.R., Hashimoto, S., Ifejika Speranza, C., Isbell, F., Kok, M., Lavery, S.D., Leclère, D., Loyola, R., Lwasa, S., McGeech, M., Mori, A.S., Nicholson, E., Ochoa, J.M., Öllerer, K., Polasky, S., Rondinini, C., Schroer, S., Selomane, O., Shen, X., Strassburg, B., Sumaila, U.R., Tittensor, D.P., Turak, E., Urbina, L., Vallejos, M., Vázquez-Domínguez, E., Verburg, P.H., Visconti, P., Woodley, S., Xu, J., 2022. Achieving global biodiversity goals by 2050 requires urgent and integrated actions. *One Earth* 5, 597–603. <https://doi.org/10.1016/j.oneear.2022.05.009>.
- Löfmark, E., Uggla, Y., Lidskog, R., 2017. Freedom with what? Interpretations of “responsibility” in Swedish forestry practice. *For. Pol. Econ.* 75, 34–40. <https://doi.org/10.1016/j.forpol.2016.12.004>.
- Loft, P., 2021. *The UK Overseas Territories: Climate Change and Biodiversity*. UK House of Commons Library, London.
- Manco, B.N., Sanchez, M.D., Blaise, J., Hamilton, M.A., 2016. *Caicos Pine Recovery Project Socio-Cultural History Report: Results and Findings of Pine Yard Interviews with Caicos Islanders*. Royal Botanic Gardens, Kew, Richmond, Surrey, UK.
- Massey, D., 2004. Geographies of responsibility. *Geogr. Ann. Ser. B Hum. Geogr.* 86, 5–18. <https://doi.org/10.1111/j.0435-3684.2004.00150.x>.
- McDermott, C.L., Hirons, M., Setyowati, A., 2020. The interplay of global governance with domestic and local access: insights from the FLEGT VPAs in Ghana and Indonesia. *Soc. Nat. Resour.* 33, 261–279. <https://doi.org/10.1080/08941920.2018.1544679>.
- McDermott, C.L., Montana, J., Bennett, A., De Mendonca Gueiros, C., Hamilton, R., Hirons, M., Maguire-Rajpaul, V., Parry, E., Picot, L., 2022. Transforming land use governance: global targets without equity miss the mark (in press). *Environ. Pol. Govern.* <https://doi.org/10.1002/eet.2027>. <https://onlinelibrary.wiley.com/doi/full/10.1002/eet.2027>.
- Meisch, S., 2013. Green food consumption: whose responsibility? In: Röcklinsberg, H., Sandin, P. (Eds.), *The Ethics of Consumption: the Citizen, the Market and the Law*. Wageningen Academic Publishers, Wageningen, pp. 160–165.
- Meyfroidt, P., de Bremond, A., Ryan Casey, M., Archer, E., Aspinall, R., Chhabra, A., Camara, G., Corbera, E., DeFries, R., Diaz, S., Dong, J., Ellis Erle, C., Erb, K.-H., Fisher Janet, A., Garrett Rachael, D., Golubiewski Nancy, E., Grau, H.R., Grove, J.M., Haberl, H., Heinemann, A., Hostert, P., Jobbágy Esteban, G., Kerr, S., Kuemmerle, T., Lambin Eric, F., Lavorel, S., Lele, S., Mertz, O., Messerli, P., Metternicht, G., Munroe Darla, K., Nagendra, H., Nielsen Jonas, O., Ojima Dennis, S., Paquer Dawn, C., Pascual, U., Porter John, R., Ramankutty, N., Reenberg, A., Roy Chowdhury, R., Seto Karen, C., Seufert, V., Shibata, H., Thomson, A., Turner Billie, L., Urabe, J., Veldkamp, T., Verburg Peter, H., Zeleke, G., zu Ermgassen Erasmus, K.H.J., 2022. Ten facts about land systems for sustainability. *Proc. Natl. Acad. Sci. USA* 119, e2109217118. <https://doi.org/10.1073/pnas.2109217118>.
- Montana, J., 2022. Mediating sovereignty for the environment in the British Overseas territories. *Small States Territ.* 5, 103–120.
- Newell, P., Bulkeley, H., Turner, K., Shaw, C., Caney, S., Shove, E., Pidgeon, N., 2015. Governance traps in climate change politics: re-framing the debate in terms of responsibilities and rights. *WIREs Clim. Change* 6, 535–540. <https://doi.org/10.1002/wcc.356>.
- Norman, E.S., Bakker, K., 2009. Transgressing scales: water governance across the Canada–U.S. Borderland. *Ann. Assoc. Am. Geogr.* 99, 99–117. <https://doi.org/10.1080/00045600802317218>.
- Noxolo, P., Raghuram, P., Madge, C., 2012. Unsettling responsibility: postcolonial interventions. *Trans. Inst. Br. Geogr.* 37, 418–429. <https://doi.org/10.1111/j.1475-5661.2011.00474.x>.
- O’Leary, B.C., Fieldhouse, P., McClean, C.J., Ford, A.E.S., Burns, P., Hawkins, J.P., Roberts, C.M., 2019. Evidence gaps and biodiversity threats facing the marine environment of the United Kingdom’s Overseas Territories. *Biodivers. Conserv.* 28, 363–383. <https://doi.org/10.1007/s10531-018-1660-5>.
- Paterson, M., 1997. Sovereignty. *Global Environ. Change* 7, 175–177. [https://doi.org/10.1016/S0959-3780\(96\)00049-0](https://doi.org/10.1016/S0959-3780(96)00049-0).
- Pattberg, P., Widerberg, O., Kok, M.T.J., 2019. Towards a global biodiversity action agenda. *Glob. Pol.* 10, 385–390. <https://doi.org/10.1111/1758-5899.12669>.
- Pattberg, P., Zelli, P., 2016. *Environmental Politics and Governance in the Anthropocene: Institutions and Legitimacy in a Complex World*. Routledge, Abingdon.
- Pellizzoni, L., 2004. Responsibility and environmental governance. *Environ. Polit.* 13, 541–565. <https://doi.org/10.1080/0964401042000229034>.
- Perino, A., Pereira, H.M., Felipe-Lucia, M., Kim, H., Kuhl, H.S., Marselle, M.R., Meya, J. N., Meyer, C., Navarro, L.M., van Klink, R., Albert, G., Barratt, C.D., Bruelheide, H., Cao, Y., Chamoin, A., Darbi, M., Dornelas, M., Eisenhauer, N., Essl, F., Farwig, N., Forster, J., Freyhof, J., Geschke, J., Gottschall, F., Guerra, C., Haase, P., Hickler, T., Jacob, U., Kastner, T., Korell, L., Kuhn, L., Lehmann, G.U.C., Lenzner, B., Marques, A., Svara, E.M., Quintero, L.C., Pacheco, A., Popp, A., Rouet-Leduc, J., Schnabel, F., Siebert, J., Staud, I.R., Trogisch, S., Svara, V., Svenning, J.C., Pe’er, G., Raab, K., Rakosy, D., Vandewalle, M., Werner, A.S., Wirth, C., Xu, H.G., Yu, D.D., Zinngrebe, Y., Bonn, A., 2022. Biodiversity post-2020: closing the gap between global targets and national-level implementation. *Conserv. Lett.* 15 <https://doi.org/10.1111/conl.12848>.
- Phelps, J., Jones, C.A., Pendergrass, J., 2019. Liability for environmental harm as a response to the Anthropocene. In: Lim, M. (Ed.), *Charting Environmental Law Futures in the Anthropocene*. Springer, Singapore, pp. 171–180.
- Popke, E.J., 2003. Poststructuralist ethics: subjectivity, responsibility and the space of community. *Prog. Hum. Geogr.* 27, 298–316. <https://doi.org/10.1191/0309132503ph429oa>.
- Popke, J., 2006. Geography and ethics: everyday mediations through care and consumption. *Prog. Hum. Geogr.* 30, 504–512. <https://doi.org/10.1191/0309132506ph622pr>.
- Raghuram, P., Madge, C., Noxolo, P., 2009. Rethinking responsibility and care for a postcolonial world. *Geoforum* 40, 5–13. <https://doi.org/10.1016/j.geoforum.2008.07.007>.
- Sarkki, S., Niemelä, J., Tinch, R., Jäppinen, J.-P., Nummelin, M., Toivonen, H., Von Weissenberg, M., 2016. Are national biodiversity strategies and action plans appropriate for building responsibilities for mainstreaming biodiversity across policy sectors? The case of Finland. *J. Environ. Plann. Manag.* 59, 1377–1396. <https://doi.org/10.1080/09640568.2015.1076384>.
- Schleicher, J., Zaehring, J.G., Fastré, C., Vira, B., Visconti, P., Sandbrook, C., 2019. Protecting half of the planet could directly affect over one billion people. *Nat. Sustain.* 2, 1094–1096. <https://doi.org/10.1038/s41893-019-0423-y>.
- Scoones, I., Stirling, A., Abrol, D., Atela, J., Charli-Joseph, L., Eakin, H., Ely, A., Olsson, P., Pereira, L., Priya, R., van Zwanenberg, P., Yang, L., 2020. Transformations to sustainability: combining structural, systemic and enabling approaches. *Curr. Opin. Environ. Sustain.* 42, 65–75. <https://doi.org/10.1016/j.coust.2019.12.004>.
- Scott, A., Holtby, R., East, H., Lannin, A., 2022. Mainstreaming the Environment: exploring pathways and narratives to improve policy and decision-making. *People Nat.* 4, 201–217. <https://doi.org/10.1002/pan3.10276>.
- Smith, T., Beagley, L., Bull, J., Milner-Gulland, E.J., Smith, M., Vorhies, F., Addison, P.F. E., 2020. Biodiversity means business: reframing global biodiversity goals for the private sector. *Conserv. Lett.* 13, e12690 <https://doi.org/10.1111/conl.12690>.
- Thompson, C., 2004. Co-Producing CITES and the African elephant. In: Jasanoff, S. (Ed.), *States of Knowledge: the Co-production of Science and Social Order*. Routledge, London, pp. 67–86.
- Trisos, C.H., Auerbach, J., Katti, M., 2021. Decoloniality and anti-oppressive practices for a more ethical ecology. *Nat. Ecol. Evol.* <https://doi.org/10.1038/s41559-021-01460-w>.
- Ulloa, A.M., 2022. Accountability as constructive dialogue: can NGOs persuade states to conserve biodiversity? *Global Environ. Polit.* 1–26. [https://doi.org/10.1162/glep\\_a.00673](https://doi.org/10.1162/glep_a.00673).

- Vetterlein, A., 2018. Responsibility is more than accountability: from regulatory towards negotiated governance. *Contemp. Polit.* 24, 545–567. <https://doi.org/10.1080/13569775.2018.1452106>.
- Vetterlein, A., Hansen-Magnusson, H., 2020. *The Rise of Responsibility in World Politics*. Cambridge University Press, Cambridge.
- Voß, J.-P., Freeman, R., 2016. *Knowing Governance: the Epistemic Construction of Political Order*. Palgrave Macmillan, Hampshire.
- Wallbott, L., 2016. The practices of lobbying for rights in the Anthropocene era: local communities, indigenous peoples and international climate negotiations. In: Pattberg, P., Zelli, P. (Eds.), *Environmental Politics and Governance in the Anthropocene: Institutions and Legitimacy in a Complex World*. Routledge, Abingdon, pp. 213–230.
- Weber, N., Weber, S., 2020. Impacts and management of invasive species in the UK Overseas territories. In: Walsh, S.J., Riveros-Iregui, D., Arce-Nazario, J., Page, P.H. (Eds.), *Land Cover and Land Use Change on Islands: Social & Ecological Threats to Sustainability*. Springer International Publishing, Cham, pp. 277–298.
- Wyborn, C., Evans, M.C., 2021. Conservation needs to break free from global priority mapping. *Nat. Ecol. Evol.* 5, 1322–1324. <https://doi.org/10.1038/s41559-021-01540-x>.
- Wyborn, C., Montana, J., Kalas, N., Clement, S., Davila Cisneros, F., Knowles, N., Louder, E., Balan, M., Chambers, J., Christel, L., Forsyth, T., Henderson, G., Izquierdo Tort, S., Lim, M., Martinez-Harms, M.J., Merçon, J., Nuesiri, E., Pereria, L., Pilbeam, V., Turnhout, E., Wood, S., Ryan, M., 2021. An agenda for research and action towards diverse and just futures for life on Earth. *Conserv. Biol.* 35, 1086–1097. <https://doi.org/10.1111/cobi.13671>.
- Xu, H., Cao, Y., Yu, D., Cao, M., He, Y., Gill, M., Pereira, H.M., 2021. Ensuring effective implementation of the post-2020 global biodiversity targets. *Nat. Ecol. Evol.* 5, 411–418. <https://doi.org/10.1038/s41559-020-01375-y>.
- Zaccai, E., Adams, W.M., 2012. How far are biodiversity loss and climate change similar as policy issues? *Environ. Dev. Sustain.* 14, 557–571.