

The performance of global forest governance: Three contrasting perspectives

Bas Arts^{a,*}, Maria Brockhaus^b, Lukas Giessen^c, Constance L. McDermott^d

^a Personal Professor in Forest Governance, Forest and Nature Conservation Policy, Department of Environmental Sciences, Wageningen University & Research, Droevendaalsesteeg 3, 6708 PB Wageningen, the Netherlands

^b Professor of International Forest Policy, Department of Forest Sciences, University of Helsinki, Latokartanonkaari 7, 00014 Helsinki, Finland

^c Professor of Tropical and International Forestry, TU Dresden, Piennert Straße 7, 01737 Tharandt, Germany

^d Senior Research Fellow and Associate Professor in Land Use Governance, Oriel College, Environmental Change Institute, University of Oxford, Oriel Square, Oxford OX1 4EW, UK

ARTICLE INFO

Keywords:

Global forest governance
Performance
Regime complex
Global-local nexus
Critical global political economy

ABSTRACT

The scope and complexity of international forest-related governance have expanded tremendously over the last decades. As many as 41 ‘institutional elements’ were counted by scholars (from UNFF to UNFCCC to SDGs). The questions of how these governance arrangements ‘perform’, for what purpose and for whom are widely contested between scholars and practitioners. This paper compares three different analytical frames, which have been employed by some of the authors. These are 1) the consequences of a fragmented regime complex, 2) the global-local nexus and 3) the critical global political economy. The frames map out their contributions and key differences in analytical perspective and help focus and advance debates. Each perspective is based on different theories, epistemologies and methodological approaches and hence yields different key results. The first frame emphasises institutional and policy fragmentation, the symbolic nature of the agreements and the ineffectiveness of the policy measures; the second shows progress in discourses, institutional design, and on-the-ground performance, while the third finds global governance has reinforced inequalities in power and access to land and natural resources. All authors agree, however, that a shift in the balance of power and novel actor coalitions are necessary to change the current global forest governance trajectory significantly. They also acknowledge the need for much greater diversity in voice and representation in both the research and practice of global forest governance.

1. Introduction and overview

The roots of ‘global forest governance’, as in the setting of international agendas, goals, rules and collective action to steer forest use and conservation, can be traced back to two major periods. The first was the colonial period of empire forestry, with its focus on the expansion of ‘scientific forestry’ and sustained yield timber production across the Global South (Sivaramakrishnan, 1999; Bryant, 1996; Gautier et al., 2015). The second was the post World War II period, marked by the emergence of multilateral forest institutions. This second period saw the establishment of the forestry department in the Food and Agricultural Organisation (FAO), and the World Bank forest strategies and loans, the latter initially concerned with wood supply shortages for a post-war Europe in a ‘post-colonial’ world (World Bank, 1991). In the 1990s, a

series of International Arrangements on Forests emerged, now housed within the United Nations Forum on Forests (UNFF), along with a growing focus on the acceleration of tropical deforestation and the rapid expansion of the tropical timber industry (Rayner et al., 2010; McDermott et al., 2010a, 2010b; McDermott et al., 2022b, 2022a, Humphreys, 1996). Over time, the global agenda for forests has expanded to encompass an ever broader and more ambitious range of priorities, from halting biodiversity loss (Isbell et al., 2023) to reducing forest-related greenhouse gas emissions (Lamb et al., 2021) to protect the rights of indigenous and local communities, to ending the trade in tropical commodities produced from deforestation (Carmenta et al., 2023). This legitimisation and expansion of international steering have also driven ongoing contestation over who sets the political agendas, goals and priorities, what are acceptable means of achieving those goals, at whose

* Corresponding author.

E-mail addresses: bas.arts@wur.nl (B. Arts), maria.brockhaus@helsinki.fi (M. Brockhaus), lukas.giessen@tu-dresden.de (L. Giessen), constance.mcdermott@ouce.ox.ac.uk (C.L. McDermott).

<https://doi.org/10.1016/j.forpol.2024.103165>

Received 25 July 2023; Received in revised form 17 January 2024; Accepted 19 January 2024

Available online 1 February 2024

1389-9341/© 2024 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

expense and to whose benefit, and in what time frame.

Given such debates over the normative means and ends of global forest governance (McDermott et al., 2022b, 2022a; Delabre et al., 2020), it is hardly surprising that there is disagreement over how well it has performed. A wide body of academic research has contributed to this debate while also introducing its own contestations around the nature of research itself. Researching performance requires, firstly, defining what is meant by 'performance', of what and for whom (e.g. Peluso and Vandergeest, 2020; McDermott, 2017). For example, performance may be assessed against one or more of the stated environmental and/or social objectives of particular governance instruments, or some other a priori normative frame, or in terms of cost-effectiveness, or based on different definitions of outputs, outcomes and impacts (direct or indirect) or different approaches to attribution (Arts et al., 2019). Conversely, a more reflexive approach to 'performance' may view governance itself as being 'performed' by particular stakeholders for a particular purpose and/or assess the 'performativity' of policy discourses in shaping which does or doesn't have a voice to evaluate performance, and by what means (ibid).

A second broad area of contestation relates to the methodological approach. Research on forest governance may draw from diverse fields of social science, from international relations studies or political science to sociology, human geography, anthropology or legal or organisational studies, etc. (Arts, 2012; Maryudi et al., 2018). Scholars both within and across these fields may draw on conflicting ontologies (views on the nature of reality 'out there') and epistemologies (views on how to produce knowledge about that reality) (Ibid).

The purpose of this article is not to take sides in these debates over framings, epistemologies and methodologies. Rather we aim to embrace this diversity while also offering ways to navigate it better and generate shared learning across different schools of thought. For this purpose, our paper provides a comparative 'anatomy' of research approaches that helps illustrate and explain different findings of forest governance research and how they relate. We do this by comparing three contrasting research perspectives and associated research programmes, methodologies and overall findings, which have been developed and applied to global forest governance by several co-authors. This includes the first approach we refer to as the 'fragmented regime complex', the second as the 'global-local nexus' and the third as the 'critical global political economy'.

We stress that this paper is a *comparative meta-analysis* of three research programs, each of which is built on multiple Postdoc-, PhD-, master- and/or other research projects executed during the last two decades. These have produced a large quantity of data through several large-scale and smaller surveys, hundreds of interviews and content analyses of thousands of policy documents and media texts. We have cited this work where relevant, and encourage readers to review the cited sources for more information on their specific methods and findings.

The next section begins this analysis by comparing how each research perspective frames the problems that international forest governance aims to address and at what scale and time frame. The following section then considers the different epistemologies and methodologies these approaches entail and what this means for research methods and knowledge generation. Finally, we compare the different findings across the approaches and the implications of these differences for theory and practice. The conclusion discusses the significance of our analysis for shared learning on the governance of forests and the environment more generally.

2. Theoretical perspectives on global forest governance

2.1. A fragmented forest regime complex leading to domestic 'customisation' effects

International regimes are one quite common theoretical approach to

describe and explain cooperation within the international system in general and on forests in particular (Krasner, 1982; Young, 2011; Humphreys, 1996, 1999, 2008). It draws on Krasner's (1982, 186) seminal definition of international regimes as sets of 'implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations'. Although regime theory remained rather state-oriented in its early days (Arts, 2000), the advantage of this broad definition of regimes as international institutions is that it allows us to look at both, state-driven and non-state actor-driven regimes. Pattberg (2012), more precisely, however, refers to the former as international and the latter as transnational regimes. It thus enables international policy and regime research to go beyond formalistic and often rather juridical accounts, which tend to consider regimes only if based on *formal* agreements and treaties. Other than practised by large parts of regime research, this definition is capable of addressing highly formalised as well as informal regimes, covering a wide array of phenomena, ranging from tacit to dead letter to full-blown regimes (Levy et al., 1995). *Informal* regimes, as well as *informal* aspects of regimes such as tacit or implicit norms, goals and actors' interests and associated expectations, however, play a crucial role as well (Smieszek, 2019; Dimitrov, 2005) and might be a meaningful, yet missing part in arriving at a more comprehensive explanations for regime performance (Rahman and Giessen, 2017; Zhao et al., 2022).

What this early and rather institutionalist account of international cooperation is under-representing, however, is the role self-interested actors play in establishing, designing and administering such regimes as international institutions (Biermann and Siebenhüner, 2009; Koppell, 2010). In order to *explain* the formation and performance of (international) institutions, however, it is imperative to include the main actors as explanans (Howlett et al., 2009; on forests McDermott et al., 2010a, 2010b, Kimengsi et al., 2022, 2023). This is important as the key actors, with their interests and power capabilities, decide and command what and how their material and immaterial resources are utilised in any given institutional context. This includes, e.g., their effort that goes - or does not go - into framing a problem into a global political issue, setting policy goals, developing and equipping means for their achievement, or availing resources for producing knowledge and numbers for evaluating global policies. As a consequence, and based on one of the authors' research programme on international forest governance (Giessen, 2018; Giessen, n.d.),¹ we further developed Krasner's regime concept by strengthening: i) the actor dimension with the informal, often hidden interests they pursue (Rahman and Giessen, 2017; Zhao et al., 2022) and ii) the informal or implicit aspects of regimes and their policies, including informal norms and actors' expectations² (Gale and Cadman, 2014; Sahide et al., 2015; Sarker et al., unpublished). As these expectations might also include abstaining from meaningful policy, regulation and action, Dimitrov (2005) coined the concept of a non-regime. His example consists of an observed informal tacit agreement among UNFF members to employ an idle, hollow institution as a sort of decoy to prevent meaningful regulation (Dimitrov, 2005). Hence, under this research programme, we conceptualise an international regime as 'a set of principles, norms, rules, and decision-making procedures – each having formal and, in equal measure, informal aspects – around either of which actors' formal and informal expectations converge in a given area of international relations' (Giessen, 2018; Giessen, n.d.). Accordingly, we understand a non-regime as a set of principles (...) – around either of which actors' formal and informal expectations about non-action, non-regulation or non-decision converge in a given area of international relations (Giessen, 2018; Giessen, n.d.). These conceptual supplements to the Krasner

¹ This forthcoming monograph is based on a Habilitation thesis from 2018. It was accepted by the publisher pending minor editorial revisions.

² By the word 'formal', we refer to statements or claims which were stated in any meaningful public forum, whereas by informal, we refer to statements or claims which were not publicly stated.

definition allow future studies to more explicitly analyse the important role of informal aspects in explaining the formation, dynamics, consequences and performance of international forest-focused, forest-related and forest-relevant regimes (Giessen et al., 2016).

The concept of international regime originates from International Relations (IR) scholarship, in which academic consideration thought is traditionally dedicated to the broad politics, international cooperation structures and underlying reasons for (non-)cooperation, mainly among nation-states. IR research so far paid less attention to the detailed, often technical plans and courses of action in instances of cooperation enabled by regimes, which we refer to as regime policy (Giessen and Sahide, 2017; Sarker et al., 2018; Sarker et al., n.d.). Quite the contrary, regime policy, as opposed to regime structures, is often confused or conceptually not accounted for as a distinct feature of international relations and their domestic consequences. These plans and courses of action consist of: i) issues addressed by a regime's policy, ii) policy goals, iii) policy instruments, as well as iv) provisions for implementation, including implementing actors (Krott, 2005). A regime policy, hence, is the very part of a regime, which in addition to its structures, actually enables some kind of action from within a given regime.

At times, more than one regime might aim to regulate what is perceived as an issue area, a situation which can be captured using the notion of an *international regime complex* (Keohane and Victor, 2011; on forests, Rayner et al., 2010, Sahide et al., 2015, Rodríguez Fernández-Blanco et al., 2019). In the case of forest utilisation and conservation, scholars often imply that it is one issue area rather than two or even more, depending on, e.g. the huge variety of ecological and social conditions under which such utilisation and conservation are globally being performed. This question cannot be further elaborated here. Yet, a plethora of international initiatives trying to govern the world's forests have evolved since the late 20th century (Humphreys, 1996, 2008, Arts and Buizer, 2009, McDermott et al., 2010a, 2010b, Giessen, 2013, Rodríguez Fernández-Blanco et al., 2019, Begemann et al., 2021). The sum of these individual forest governance initiatives and regimes makes up the international forest regime complex (Rayner et al., 2010). Still, not all of these institutional elements of the regime complex come with the same political drive. At any point in time, some of them address more or less salient issues, receive more or less political attention, mobilise more or less powerful actors and coalitions, create more or less political momentum, set more or less ambitious goals, are equipped with more or less means, resources and institutional backing, implement provisions more or less rigidly, and draw lessons based on more or less reliable or valid knowledge. Rarely, however, any institutional element of a regime complex is actively being discontinued. Inevitably, this leads to an ever-growing set of forest-focused, forest-related as well as forest-relevant international policies within the international forest regime complex (Giessen et al., 2016).

A further inevitable consequence of this proliferation is the *institutional fragmentation of any regime complex*. In general terms, Biermann et al. (2009) conceptualise such fragmentation and distinguish it into synergistic, neutral, and conflictive types of fragmentation. Rodríguez Fernández-Blanco et al. (2019) then apply the concept to forests and analyse the degrees of fragmentation based on each element's policy goals and instruments. They find that the forest regime complex is synergistic among rather vaguely formulated elements, especially regarding sustainability as an empty formula. They also suggest that the more concrete a regime's policy is being formulated in terms of policy goals, instruments and implementing actors, the more conflictive the nature of fragmentation will be. This leads towards questions for future research as to which elements of a regime complex are producing stronger or weaker intended or unintended effects and broader consequences (Villanueva et al., 2023).

The domestic consequences, effects, outcomes and impacts of international environmental regimes were subject to an earlier research programme on regime effectiveness. It linked the formal goals of international regimes, or rather of their policies, with domestic political as

well as biophysical effects (Underdal and Young, 2004, Andresen, 2013, on forests Solberg et al., 2017). While this perspective created a number of highly valuable insights into some of the domestic effects of international regimes, it often treated the interface between the international system and domestic political as well as ecological systems as a black box, thus undervaluing the explanatory importance of key domestic actors (DeSombre, 2000, Bernstein and Cashore, 2012, Burns and Giessen, 2016). In this regard, powerful domestic actors, including national-level state bureaucracies as well as business and environmental associations, are assumed to either contribute towards shaping international cooperation structures or select elements of a regime (complex) which are favourable for their respective interests for further 'implementation'. Elsewhere (Börzel, 2002), these processes are referred to as uploading and downloading to international regimes. Under the present approach, both processes are considered and conceptualised as actor-driven 'customisations' (Thomann, 2015; Logmani et al., 2017), implying that each regime element will be further adapted to the interests and preferences of national and sub-national policy sub-systems and elites (Bernstein and Cashore, 2012).

Summing-up this section, some of the still salient questions for critical analysis on international forest regimes include: What are the formal and informal utilities of regimes, and for which actors are they realisable? How useful are regimes as compared to regime complexes in terms of effects and performance as well as in terms of actor-specific utilities and ways in which they can be manoeuvred, utilised and customised? How are regime policies established and changed over time, by who, and how far do they differ from the original regime structures and intentions? How do the domestic effects and broader political and biophysical consequences of regimes compare across different countries, politics and policy sub-systems? Answers to these questions may be contributed by multiple research programmes and approaches, some of which will be elaborated in the following chapters. These insights will inform us for individual empirical cases to which extent regime performance can be explained by the interests and power of key regime actors, by norms and rules as social structures, or by other explanatory factors.

2.2. The global-local nexus

As the previous section illustrates, the use of regime theory is quite popular in International Relations studies, not the least in the analysis of international environmental policy (Young, 2011). However, it exhibits some blind spots, particularly the versions from the 1980s and 1990s (Arts, 2000). Firstly, regime theory is state-centric, at least in its early days, with less or no interest in the role and influence of non-state actors (NGOs, industrial interest groups, social movements). With that, it is generally perceived as inter-state and intergovernmental in nature, thus ignoring transnational relations (which directly go from the local to the global, and vice versa, surpassing national boundaries and state bureaucracies). Secondly, regime theory often assumes a vertical architecture of international, multi-level governance (although mostly not explicit). The regime – the set of rules, norms, values and procedures in an issue-area – is 'at the top' of the international state system, while implementation should take place 'at the bottom' of individual states. In case such implementation is lacking, top-down sanctions should be placed upon the free riders in accordance with classical institutional theory (although sanctions mostly lack in international law). Finally, regime theory often prioritises formal rules and regulations above global norms, values and non-legally binding instruments. Such have silenced possible effects of international norms and discourses on local practices.

It should be acknowledged, though, that regime theory has relaxed its state-centric, vertical and formal perspective on international relations and international governance over time - see the previous section - but one could argue that such revisions are not sufficiently radical to understand the current international system better. An alternative perspective that is proposed here is 'the global-local nexus' (Milne and

Ateljjevic, 2001). A nexus refers to a connection or a series of connections linking two or more things; in this case, global discourses, policies, rules, norms, labels, etc., on the one hand and local practices on the other. This may happen through the channels of national state agencies or just bypassing them, for example, through ‘glocally’ operating NGOs, civil society or business organisations (Arts, 2004).

This approach is inspired by three schools of thought: global governance, network society and practice theory. Particularly James Rosenau (1988) has stressed the importance of transnational relations of non-state actors for understanding international politics, besides the power and interests of states. Castells (2000) further radicalised this view by looking at global, transboundary and expanding networks of individuals and organisations, fuelled by the ICT-revolution and the worldwide web, while showing how such has shaped new identities and counterforces as well as new winners and losers in the global economy. Shove et al. (2012) finally conceptualise the world as transboundary bundles of practices in which so-called elements of practices (meanings, materials, competencies) travel from one place to the other through various carriers (people, vehicles, books, internet, etc.). Contrary to the hierarchical view of politics and society, this perspective is deliberately horizontal and flat. This is not to say, though, that power is not exercised in such a network, but it does not work hierarchically but through connections and positions in the network, and the resulting uneven exchange of meanings, materials and competences. The more central an agent is positioned in a network and the more interactions he/she is involved in, the more powerful he/she is. And such power is definitely unequally divided among agents in networks.

Jointly, these three schools shape a perspective in which: (1) ideas and discourses; (2) rules, norms and values; as well as (3) materials and resources travel among sites in the worldwide economy and society (see Fig. 1). These ‘travelling elements’ are based on the work of Shove et al., see above, but also draw inspiration from Bernstein and Cashore's (2012) pathways of influence between global governance and domestic policies.

Ideas about a state of affairs or a wish for change, and the communication about those ideas (discourse), stretch beyond national borders in our globalised society, although not everywhere (e.g., North Korea). While travelling, these are always translated to local contexts (e.g., different interpretations of sustainable forest management in different countries) or contested by certain parties (e.g. alternative facts about climate change). Nonetheless, some ideas become institutionalised and mainstreamed into rules, norms and values through policy-making processes at various levels (national, global) and then travel through the world in this different form, which may be copied or translated to local policies elsewhere. Finally, raw materials like wood, minerals and oil flow from one locality to the other through various carriers, while resources like money, technologies and know-how do the same. As said, some in the network have (much) more access to these ideas, rules and materials than others, and such marks the implied power processes in the global-local nexus.

Figure 1 can be applied to ‘glocal’ forest governance. For example, ideas and discourses about Sustainable Forest Management, rules and norms for National Forest Programs, and funds for and knowledge about REDD+ travel from the globe to local places and practices, and while doing so, become translated to local sites and conditions (Arts et al., 2016; Den Besten et al., 2014). In reverse, these local translations may

again influence global discourses and policies, for example, through social media or transnational diplomacy. Hence, while taking a global-local nexus lens, the following research questions can be posed: How is the nexus between global policies and discourse on the one hand and local practices on the other shaped in a particular issue area? What's the role of discourses, rules and resources in this two-way nexus? What carriers are relevant for the ‘travelling’ of these elements? Who is best or least positioned in this nexus, and why? How can this nexus work for public goods?

2.3. A critical and global political economy analysis

A third perspective on global forest governance - critical global political economy - is explicitly concerned with those who carry the burdens in global forest and forestland governance and those who are marginalised when decisions are made over forests and forest lands in the Global South (Brockhaus et al., 2021). Hence, the ontological roots of the proposed approach are essentially Marxist in its investigation of the social and economic complexities and contradictions reflected in forest governance and provide a critique of the processes, underlying flows and social relations that (re)produce inequality (Cox and Schechter, 2002; Harvey, 1996).

Traditionally, global political economy analysis assumes a set of interlinked relationships between people, the State, society and markets, as well as actors such as international organisations, multinational enterprises, commodity roundtables and global networks. These interlinked relationships are defined by law, politics, economics, customs and, most importantly, by power. Together, they determine the outcome of trade and transactions and the distribution of wealth within and between states, economies and social groups. Among the different theoretical strands within political economy, a critical perspective moves beyond an often positivist examination of the nation-state or the individual within; instead, it acknowledges the historical, social context in which the political and economic are jointly constructed and co-evolve dynamically over space and time. Consequently, a critical global political economy perspective, more explicitly than other approaches such as political ecology, allows us to analyse inequality related to such topics as globalisation, financialisation, and the underlying forest-based material, monetary and ideational flows within and beyond a global forest sector, all of which shape and are shaped by global forest governance.

Global forest governance - and the problems it supposedly aims to solve - can be characterised by taking place in multi-actor, multi-level, and multi-interest policy domains. Here, forests and forestlands are highly contested spaces and are claimed for a myriad of global interconnected interests. These interests are embodied in plantations and extractive concessions in colonial and contemporary territories to provide materials such as oil palm, rubber, hard woods as well as so-called colonial crops of addiction (e.g., tea, coffee, sugar, tobacco and opium) to markets in the Global North (Peluso and Lund, 2011; Wolford, 2021). Even though often carried out by a myriad of local forest stewards, forest conservation is also led by international interests in parks and reserves. The interests at play, ranging from forestland concessions and conversion to global commodities, incl. Tree plantations, to nature conservation and local land uses, have produced social inequalities within and across countries over centuries (Assemble-Mvondo et al., 2013; Wong et al., 2019). These have been legitimised by powerful discourses and

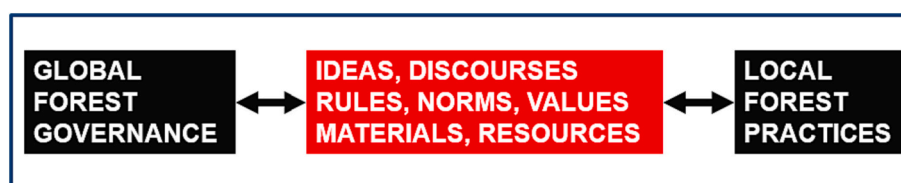


Fig. 1. The global-local nexus in forest governance.

imaginaries within dichotomies of modernity versus backwardness, large versus small, global versus local, and the capable versus the incapable (Delabre et al., 2020). Hence, analysing phenomena related to global forest governance and identifying pathways for change away from inequalities and social and environmental injustices requires a problematisation of the very structure that performs and has performed global forest governance over time.

Inequality within and among societies is currently part of many public debates (Chancel et al., 2022; Sen, 1997). Yet, inequalities in opportunities and outcomes are ‘produced’ by multidimensional, socio-political processes that often feed into the governance machinery of inequality (Afonso et al., 2015). Inequality resulting from uneven distribution of, and access to and right over, the many materials and immaterial benefits from forests in the tropics have been increasingly recognised in recent literature (Ribot and Peluso, 2003; Cotula, 2012). One example is the emerging body of work around the ‘plantationocene’ (Wolford, 2021; Kenney-Lazar and Ishikawa, 2019). Here, particular attention is brought to the conversion of forest land to plantations for the production of tree biomass or other commodities – often in the name of development – and the distal flows (or teleconnections) that have enabled profits and change in one geography (e.g., Europe and North America, more recently China) at the expense of another (e.g., in the Global South).

Hence, we propose a critical global political economy approach to global forest governance, drawing on the interdisciplinary field of critical and global political economy (Wigger, 2022; Scherrer et al., 2023) together with critical discourse analysis (Van Dijk, 1993). We ask who governs forest and forest lands, who and what is problematised in policy and practice, and who benefits and who loses? Answering this question, as we argue, requires a lens that enables us to unpack what shapes, what enables or what hinders social and environmental justice in forests and forest lands of the Global South (and North). A critical global political economy analysis provides this lens as it explicitly: “chooses the perspective of those who carry the burden and suffer most, and critically analyses those in power, those who are responsible, those who have the means and the opportunity to solve such problem, and investigates what is represented to be the problem in current policy” (adapted from Van Dijk, 1993).

To capture these dynamics, we argue that the analytical framework needs to focus on power relations and processes of change away from a business as usual (BAU) approach that produces ongoing forest and biodiversity loss and related social and environmental injustices and inequalities (Brockhaus et al., 2021; Pendrill et al., 2022). Particular attention is needed to: 1) institutional context and path dependencies to shed light on the history and the institutional stickiness that keeps (re)producing inequality, 2) the actors and their interests, as well as 3) flows of ideas and 4) information - the 4I framework (Brockhaus and Angelsen,

2012; Di Gregorio et al., 2012a; Brockhaus et al., 2021). As shown in Fig. 2, this approach supports unpacking of actor's specific interests and beliefs, material or non-material, but also brings out the specific problematisations and legitimating discourses in policy and practice.

Such a framework enables us to ask and assess whose voices matter when forests are governed? Whose interests are more powerful? In addition, the proposed framework needs to pay particular attention to the politics of numbers, as it seems that who counts, counts, and only what is counted, counts - while what is ‘unaccounted for’ is silenced in global forest governance (Brockhaus et al., 2021; Wong et al., 2020; Pham et al., 2021; De Sy et al., 2018). Information in global forest governance is not value free, but politics and science are deeply entangled. Unpacking these dynamics and the interlinkages among the 4I's can help answering how the current ‘business as usual’ approaches come about and is being maintained or reproduced? Which are possible (and desirable) pathways towards transformations towards more just futures?

3. Methodological perspectives on the performance of global forest governance

This section provides some insights in the methodological approaches of the three research programmes presented in this article.

3.1. Explaining regime ‘customisations’ by employing a positivist political ethnography

This particular research programme (Giessen, 2018; Giessen, n.d.) on domestic effects of international forest regimes subscribes itself to the empirical-analytical approach to social research, which is rooted in the ontological school of objectivism and the epistemological school of positivism (Bryman, 2001, Popper, 2010, Krott and Giessen, 2014, Kleinschmit et al., 2016). A basic assumption here is that the society and distinct groups within it operate according to general patterns in analogy to (other) natural phenomena following natural laws. Such regularities are based on factors or variables which are in a causal relation to each other. In a value-neutral, agnostic-analytical manner, this research programme aims to detect such dependent and independent variables through (i) assumptions or hypotheses on their causal relations and (ii) their empirical proof or falsification, followed by (iii) a refinement of the assumptions and further development of the theories from which they were derived. In abstaining from implicit or explicit value judgements on which empirical phenomena and developments in global forest governance are perceived as good or bad, positive or negative, desirable or condemnable, this programme focuses on merely explaining phenomena. This does not mean ignoring why certain developments and empirical phenomena are perceived as ‘positive’. Quite the contrary, it

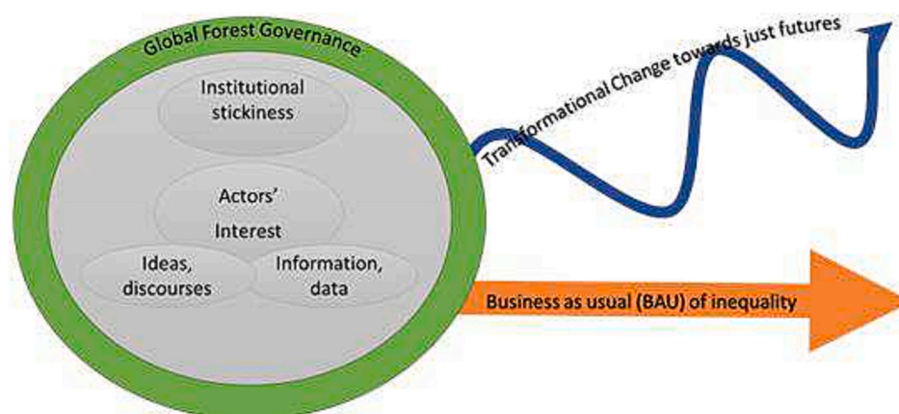


Fig. 2. The 4I's shaping and being shaped by Global Forest Governance and producing business as usual and transformational change.

means asking ‘positive for who?’, pointing towards the utility in material and reputational terms for specific actors. Such a perspective on the actor-specific utility of forest regimes, their policies and domestic customisations is the basic argument for analytically explaining empirical phenomena. Based on such agnostic-analytical scrutiny, further steps might then be to take advocacy by developing normative strategies and policies towards preferred ends, to be defined by any advocate such as a researcher, organised interest groups or representatives of relevant organisations (Kleinschmit et al., 2016). Similarly, more normative-analytical approaches might include preferred ends such as democracy or justice in their studies to support specific preferred changes within their study subject.

The overall aim of this research programme was to explain the architecture of the international forest regime complex and its domestic political consequences. Deep and thick empirical insights were needed to more fully explore the black-box processes at the complex international-domestic interface. This is important for revealing the actor-specific utilities of the fine-grained political customisations and effects of international regimes in specific domestic polities, policy sectors and sub-systems. As a consequence, and contrary to the largely quantitative research on regime effectiveness, this research programme deliberately chooses a qualitative design, with deep empirical insights into the detailed customisation processes at various international-domestic interfaces. It builds on interpretative case studies (Lijphart, 1971) following a qualitative-analytical approach (Bryman, 2001) in order to empirically trace the detailed processes of how international institutions and policies were implemented, transposed, ‘translated’, or otherwise employed in domestic contexts. This was done by supplementing a classical top-down perspective on international regimes with a ‘from-below approach’ and perspective on these very international institutions (Giessen and Sahide, 2017). The individual case studies were performed by various collaborating researchers, mostly PhD candidates in the context of this programme. The key selection criterion was their deep field access to such processes and data, including, for example, a long-standing civil servant from a domestic administration with access to formal and informal data and tacit knowledge of internal customs. Taken together and elaborated elsewhere (Giessen, 2018; Giessen, n.d.), these epistemological and methodological features compiled into the research programme’s overall methodology may be considered a ‘political ethnography’ (Schatz, 2009a, 2009b). Still, we developed this political ethnography within a positivist epistemology (Krott and Giessen, 2014; Kleinschmit et al., 2016). In line with what Arts et al. (2012, Eds.) refer to as ‘thick’ empirical insights, deep field access is the core of our methodological approach, which Schatz (2009b, 1) refers to as ‘ethnographic immersion’ into the ‘natural habitats’ of political actors. Given the above-mentioned objectivist ontological and positivist epistemological orientation of this research programme, this may come as a methodological surprise, as many deem those as irreconcilable with deep qualitative inquiry. From our perspective, however, this innovative combination is considered one of the key methodological contributions of this programme, especially given that such methodologies are rare in broader international relations and governance studies (Giessen, n.d.).

In order to reveal the fine-grained customisations and related utilities, such multiple case studies were built on deep field access and genuine, fine-grained data. Based on the assumption that such customisations are driven by the utility expectations of specific actors, we used an actor-centred approach by asking: which types of actors in general and which actors in particular benefit from the customisation of international institutions and policies? By leaning towards behavioralism, this approach runs the risk of underestimating specific aspects, such as discourses and institutions (Arts and Buizer, 2009). In doing so, however, it follows the logic of action within social structures and institutional settings, not social structures alone (Howlett et al., 2009; Fischer et al., 2020).

Data was collected based on some 10 full and 4 partite PhD projects,

as well as the author's postdoctoral collaborative works between 2012 and 2023. The studies mainly focused on the global forest regime complex as such, selected regional regimes such as the EU, Forest Europe, COMIFAC, CBFP, SAARC, SACEP, ACTO/OTCA, Montreal Process, and selected regimes' domestic effects in Argentina, Armenia, Bangladesh, Germany, Indonesia, and Poland. The data regularly included a bulk of qualitative materials, at times supplemented with simple quantitative materials such as funding figures and simple statistical data. The bulk data was derived from content analysis of some hundreds of policy and media documents, some few hundred interviews with key informants, as well as observations by the researchers of participating and non-participating nature (Friedrichs, 1990). Multiple triangulations were performed, including triangulation among authors from different cultural backgrounds, lead authors with genuine, deep field access and own professional experiences in the field, and theory triangulation.

3.2. Linking the global to the local: A critical-pragmatist approach

For assessing how the global-local nexus ‘works’ in forest governance, ‘mixed method research’ (MMR) seems most appropriate (Tashakorri and Teddlie, 2010). On the one hand, we are interested in how global forest governance interventions may – or may not – produce certain impacts on the ground. Here, in-depth case studies seem a logical choice (to follow manifestations, translations and implementations of global ideas, rules and resources in specific sites), as are contrasting cases to identify impacts (intervention cases versus control cases). On the other hand, to say something sensible about the performance of global forest governance in general, quantitative analyses of many interventions and their (non)impacts on the ground seem the most appropriate. One can, for example, think of analysing multiple case studies through QCA (Qualitative Comparative Analysis), doing large-N field experiments and/or conducting systematic reviews of available impact studies around the world. In a third step, local cases and global performance can be linked by studying the nexus between the two, so how ideas/discourses, rules/norms and materiality/resources might have mutually affected one another at local and global levels. Such a third analysis is again qualitative in nature.

Epistemologically, MMR is often linked to philosophical pragmatism, although not exclusively (Tashakorri and Teddlie, 2010). This school of thought is, first of all, critical towards objectivism/positivism (see previous subsection). Objects, experience and empirical observations are indeed important sources of knowledge, but not the only ones, so these should neither be absolutised nor universalised. Besides, subjects (reason, wisdom) and intersubjective relations (culture, communication, language) are also important sources of knowledge. Secondly, pragmatism is also critical towards constructivism. ‘Truth’ is more than a social construction - it exists as long as it works in practice - and ‘reality out there’ is knowable, although it is not ‘given’ by simple observation because cognitive limitations, cultural interpretations and social dynamics intervene in knowing the world. For all these reasons, pragmatism advocates ‘pluralism’, which is a critical and ongoing engagement with multiple theories and methodologies in scientific research and applied inquiry. Some also refer to this as ‘critical pragmatism’ (Kadlec, 2006).

One example of how ‘we’ (the Forest and Nature Conservation Policy group at Wageningen University in the Netherlands) applied MMR is an analysis of Participatory Forest Management (PFM) through the lens of the global-local nexus. Firstly, we analysed PFM as a global phenomenon, being referred to as an important forest governance approach in many global instruments, such as the Rio Declaration, Agenda 21, UN Declaration on the Rights of Indigenous People, Non-legally Binding Instrument on all Types of Forests, Aichi Targets, SDGs and the Global Forest Objectives (Arts et al., 2016). Jointly, these instruments have constituted influential ideas and norms about PFM, which have trickled down to domestic arenas, as well as have mobilised additional resources

for implementing PFM locally. Secondly, colleagues conducted several case studies on PFM and its performance in various countries around the world (see Arts and de Koning, 2017 for an overview). Some of these countries have become real leaders in implementing PFM in their territories and have thus also influenced global discourses and national responses (like India and Nepal that inspired UN organisations, individual countries and donor organisations to table and finance PFM as a 'good' governance mechanism). In a next step, we subsequently synthesised these PFM-studies through QCA, which allows for semi-quantification and for some generalisation (Arts and de Koning, 2017). Thirdly, we conducted a systematic review of the scientific literature on the environmental impacts of PFM in order to go beyond mere case studies, while adding systematic reviews in the social-economic realm of other scholars in the overall analysis (Burivalova et al., 2017; Di Girolami et al., 2023). Finally, we integrated all these qualitative and quantitative findings into one comprehensive analysis (Arts, 2021).

3.3. *Bringing out the critical and reflective - mixed methods in critical global political economy analysis*

The epistemological underpinning of critical global political economy is open to a wide range of methods, but leans towards historic and interpretivist analyses. By all means, it calls for epistemological awareness and reflection, as knowledge is understood as historically and socially produced - and reproduced. Unpacking who and how forest and forest lands are governed in the Global South (and North), to the benefit of whom, and how institutions, interests, ideas and information and their interlinkages (re)produce particular outcomes in space and time calls for a diverse set of methods.

Performance of global forest governance in the critical global political economy perspective is then a starting point (there is inequality); an analytical objective (forest governance performs to the benefit of whom); and finally, it is a call for an inquiry into performativity (what and who is problematised in forest policy since colonial times, what has been proposed as a 'solution', what is being silenced). Shedding light on performance and performativity in global forest governance allows this perspective to challenge the status quo of inequality, while drawing attention to the actors' agency to change this situation. This agency is expressed in and enabled through shifting discursive practices, incentive structures, and shifts in power relations.

When conducting a critical global political economy analysis through the operationalisation of the 4I framework as introduced earlier, we bring together institutional analysis with critical discourse analysis and policy network analysis. A mix of qualitative methods (e.g. in-depth interviews and focus group discussions, analyses of policies, texts, images) and quantitative methods (e.g., surveys, statistics incl. trade data, systematic reviews) can be used to build up a comprehensive data corpus. The data corpus has to allow for relational analysis, assess structural conditions within policy domains at different levels and countries, as well as to measure distal flows and international influences shaping local and global processes and outcomes of forest governance. Finally, detecting patterns in and among these structures and across actors, groups, and societies calls for comparative research designs, for example, when we want to identify the diverse conditions enabling transformational change across different governance levels. Then, in-depth case studies are required to provide a 'thick' understanding of causal relations and interferences.

One example of such an analysis is based on the policy, politics and power module of CIFOR's global comparative study of REDD+, ongoing since Schatz, 2009a. Institutional stickiness and related histories and path-dependencies can be investigated through institutional policy analysis, e.g. in country context studies, for which we developed a joined methodology to ensure comparability across the 15 country cases that form part of the programme (Brockhaus et al., 2012). We co-produced with local colleagues from research, state and civil society

organisations new understandings of institutional histories and policy outcomes through the review and analysis of legal frameworks and statistics, incl. Trade and investment patterns, also supported through archival work (see, for example, Dkamela, 2011, Dwisatrio et al., 2021). For the analysis of 'ideas, discourses and beliefs', we took a mainly quantitative approach and analysed media frames in newspaper articles related to REDD+ of main newspaper outlets with high circulation numbers, combined with qualitative coding of arguments put forward by diverse actors in these frames, following a code-book (Di Gregorio et al., 2012b). We also developed a joined database for all country cases to facilitate the comparative analysis. In addition, the 'discourse network analyser' developed by Leifeld (2010) enabled a network analysis of actors' arguments as put forward in the newspaper articles and the detection of subgroups and discourse coalitions in countries' REDD+ policy domains. Data from a network survey that used a Likert scale to identify actors positions related to particular policy stances helped us to understand polarisation in the policy domain and changes in beliefs over time (Gronow et al., 2022; Di Gregorio et al., 2017). More qualitative approaches accompanied the quantitative analysis. We also applied a WPR (What's the problem represented to be - Bacchi, 2009), which allowed us to identify problematizations (and silences) in deforestation-related policies.

Actors' interests as well as the politics of numbers that characterise information - and the lack thereof - in the REDD+ policy domain, can be identified and highlighted through all of the above methods, as well as dominance and power to realise one's own interests. In our design, policy network analysis was the main quantitative method to assess power in the often global policy domain of deforestation and forest degradation (Brockhaus et al., 2014). Here, we combined a survey with in-depth interviews to understand reputational power, as well as networks of information, conflict and collaboration, and finance. The collected data helped us dissect competing interests in policy arenas and allowed for testing hypotheses related to policy learning and a wide range of structural features of the policy arena. Finally, a qualitative comparative analysis (QCA) integrated the findings of the different methods employed in the REDD+ research design as described above, combined with expert assessments (Korhonen-Kurki et al., 2014, 2019). The analysis allowed us to identify enabling conditions for transformational change (or not) in the REDD+ policy arena. This research across 15 countries with more than 100 researchers and activists involved benefited from investments in joined databases, budgeting of time for quality control and the use of free software to enable an analysis of text material and other data across the different research teams.

4. Key research findings and contributions

This section provides some key findings stemming from each of the three research programmes presented in this article.

4.1. *'Who benefits?' Actor-specific utility of a fragmented regime complex*

A key finding of our research programme on the forest regime complex (Giessen, 2018, Giessen, n.d. for an overview) reveals its extraordinarily high degrees of institutional fragmentation. By further and continuously asking 'cui bono' - who benefits - the key results further suggest that this fragmentation may partly be explained by the utilities and benefits this fragmentation and continued proliferation of multiple forest regimes provides for specific international and domestic actors. These differentiated utilities for specific international as well as domestic actors illustrate that each international regime needs to be looked at as having two faces: One international face, viewed from an international perspective, and another domestic face (hence, actually multiple ones) from multiple distinct domestic perspectives.

4.1.1. *The international face of forest regimes and their utility*

High degrees of institutional fragmentation of the forest regime

complex were observed horizontally, among different domains or policy fields, and vertically, at different scales of governance from global to regional to bilateral regimes (Giessen et al., 2014; Singer and Giessen, 2017; Rodríguez Fernández-Blanco et al., 2019). Horizontal fragmentation into multiple policy elements of the regime complex was found to be synergistic among many elements. This, however, was due to a number of decisions not being taken (yet), which we refer to as non-decisions. They include a lack of concretely formulated goals and instruments of such elements, as well as the use of ‘sustainability’ as a non-defined empty formula. In contrast, conflictive fragmentation prevails among elements of the regime complex, which do address a concrete subject matter and display clear and technically refined goals and instruments (Rodríguez Fernández-Blanco et al., 2019).

Besides the high degrees of institutional fragmentation as well as continued proliferation, UNFF as the forest core regime, over the past decade, has politically been hollowed-out. This process is characterised by: (i) reduced political attention to UNFF, (ii) an increasing lack of material resources of UNFF and its secretariat in light of its comprehensive and high ambitions, and (iii) the ‘climatisation’ of forests as an issue (Singer and Giessen, 2017).

The observed proliferation of forest-related regimes and the resulting fragmentation of the regime complex actually benefit specific actor types. Firstly, state bureaucracies, as compared to non-state entities, benefit from constant public budget and staff resources for participating in multiple international fora, in multiple localities, and over relatively long periods of time (Giessen et al., 2014). Among those bureaucracies, cross-cutting high-politics departments are increasingly representing member states in the negotiations to the benefit of sectoral line ministries. In particular, however, it seems to be utilitarian as opposed to conservation-oriented bureaus increasingly taking the lead (Giessen et al., 2014). An open aspect remains the role of multi-domain, hybrid administrations as well as newly emerging climate departments.

Beyond such individual actor types, specific transnational policy sectors at large are also observed benefitting from the fragmentation and proliferation (Giessen, 2018; Giessen, n.d.). Foremost, the transnational forestry sector, with its utilitarian as well as non- and de-regulation interests (Humphreys, 1996), benefits from a large number of competing and ambivalent regimes, non-decisions and resulting non-regulation. In similar lines of reasoning also the global (free) trade sector benefits. To a lesser extent also, the transnational nature conservation sector benefits from the plethora of political avenues and access to forest policy processes and forests as political issue areas.

4.1.2. The multiple domestic faces of forest regimes and their utilities

Key insights from this research program suggest that international forest regimes are not merely implemented or transposed, but strongly customised towards specific domestic contexts and elite preferences (Thomann, 2015). Such findings are individual mosaic pieces and were generated for selected regimes in selected countries without strong systematic selection. Yet, it was shown that domestic political action could customise regime policy and its implementation in three ways: 1) Adapting the domestic relevance of regimes, 2) Adapting regime policy implementation domestically, and 3) Adapting domestic administrative structures. On the former, our findings suggest that specific regimes that are not relevant in a domestic context from a problem point of view can still be made relevant domestically by bureaucratic actors to be responsible for and benefit from that very issue and regime (Sahide et al., 2015). In the second and third aspects, the results show how regime policies were customised to domestic elites' and bureaucratic preferences in multiple ways. To name a few, this includes for instance: (i) how international community forestry policy was harnessed in domestic social forestry policy to benefit domestic central forest bureaucracies in Bangladesh and Indonesia (Sarker et al., 2017; Rahman et al., 2016); (ii) making the issue area of forests ‘arable’ for international agricultural investments to benefit domestic agricultural administrations by dismantling comprehensive forest bureaucracies (Burns and

Giessen, 2016; Burns et al., 2017); (iii) how international funds and ODA on community forestry were harnessed in the re-centralisation efforts of forestry bureaucracies in Indonesia (Sahide et al., 2016); (iv) redefining Natura 2000 as an EU nature conservation instrument in support of logging interests in Poland (Logmani et al., 2017); and (v) how the existence of visible as well as hidden super-bureaucracies in Indonesia and Bangladesh enabled international forest-climate REDD+ policy to maintain hidden domestic power structures vis-à-vis different international donors, respectively (Wibowo and Giessen, 2015; Rahman and Miah, 2017).

Taken together, the key results indicate that any international forest regime, in order to explain its existence as well as its institutional design and policy, must be viewed and analysed from an international as well as from a particular or rather multiple domestic viewpoints. Hence, classical analyses which take a rather top-down perspective on international regimes and their policies, which ought to be implemented at lower scales, need to be supplemented with from-below approaches (Singer and Giessen, 2017) in order to fully assess their shape as well as international and domestic performance(s).

4.2. Making a difference in the global-local nexus: ‘Small wins’ for a change

In the methodological section on mixed methods research (MMR) above – linked to the global-local nexus perspective – we went into participatory forest management (PFM). In this example, the findings of multiple case studies (‘the local’) and of systematic reviews of quantitative studies (‘the global’) were considered coupled through ‘travelling’ ideas and discourses; norms, values, and rules; and materials and resources. Based on this analysis, we concluded that PFM reaches about 600 million hectares globally and shows a ‘success rate’ of about 75% in the environmental domain (meaning that about three-quarters of available environmental assessments of PFM report more or less positive impact on the ground) and of about 50% in the social-economic domain (meaning that about half of the social-economic assessments of PFM report more or less positive impact). We also concluded that PFM might be expected to increase forest biodiversity – in terms of an increase of ‘mean species abundance’ (MSA) – between 20%-points (forest enrichment by PFM) to even 70%-points (avoided deforestation of tropical forests by PFM) in the longer run, compared to the 100%-baseline of the undisturbed state of a specific forest ecosystem (Arts et al., 2017). The key pathways to explain performance in this global-local nexus are influential discourses, persuasive knowledge, social norms and finance, but definitely not formal rules because a legally-binding agreement on forests, let alone on PFM, is lacking. Yet, PFM is not the ‘golden bullet’. Forests are better off than people in most PFM-initiatives; positive impacts generally refer to ‘small wins’; these small wins are still captured by local elites in many instances; and empowerment of marginalised people is often neglected in these initiatives (Baynes et al., 2015; Arts, 2021; Fletcher, 2010; Hajjar et al., 2021).

In a similar vein, analyses of forest certifications, FLEGT and REDD+ were conducted besides PFM (Arts, 2021). Combined, these four forest governance initiatives reach about 1.4 billion ha of forests – about one-third of all forests worldwide – and as far as these are implemented on the ground, about half of these initiatives exhibit some degree of positive, socio-economic and/or environmental performance (given the systematic reviews of impact assessments available, particularly on PFM and certification, and to a much lesser extent on REDD+ and FLEGT).

But how to interpret these findings? It seems that the glass is half full, half empty. The reach of the forest governance initiatives is impressive (one-third of all forests), but implementation lags behind in many instances. And for as far implementation does occur, initiatives show a ‘50% success rate’, while the impacts assessed are often to be considered ‘small wins’ at best. In Arts (2021), I use two metaphors to interpret this double-faced situation. *Chloris* — the goddess of flowers in Greek mythology — presents a positive interpretation of forest governance

performance. The many initiatives are then viewed as: ‘thousands of flowers sown of which at least a few will blossom’. The hope is that the many small wins can make a big difference in curbing deforestation, degradation and forest-related poverty trends in the long run. *Hydra*, the critical interpretation, refers to the ‘many-headed monster’ from Greek mythology. You can cut off a head, but two will grow back in its place. In other words: the initiatives seem to address forest-related problems but fail to truly address the politico-economic root causes of deforestation, forest degradation and the marginalisation of forest-dependent people. Initiatives such as certification, PFM, FLEGT and REDD+ just touch the surface of these problems, so the latter simply persist just under that surface.

Termeer and Dewulf (2018) developed a framework to make a distinction between small wins that are likely to contribute to transformational change and small steps that reflect mere window-dressing. Hence, ‘true’ small wins are small but not trivial and thus have the potential to accumulate into a series of steps that may finally result in transformational change. For the latter to occur, Termeer and Dewulf (2018) identify characteristics of such transformational steps: concrete visible results (as opposed to vague promises), in-depth change and new practices (as opposed to more of the same), local level change (as opposed to large scale) and benefits for most involved (as opposed to losses for many). In order for these small wins to accumulate and accelerate, the authors also identify a number of ‘propelling mechanisms’, such as an energising discourse (‘yes, we can’), learning by doing, celebrating successes, bandwagon effect, coupling of various wins in different domains, and robust institutionalisation.

It would be very interesting to test the small wins of PFM, certification, FLEGT and REDD+ in accordance with this framework, but this has not been done so far. One might expect that results will differ. For example, certification is accused of just absorbing low-hanging fruit in many developed countries, so it does not really add to the improvement of forest management there. In such cases, the small wins become trivial. PFM does, on the other hand, bring in-depth change and visible benefits in some communities, but in others, it shows that only elites benefit and thus contribute to the status-quo. Hence, it is too early to conclude whether the on-the-ground impacts of the forest governance interventions identified do or do not contribute to transformational change, thus supporting either Chloris or Hydra’s views on the matter. However, this would be an interesting research agenda for the near future.

4.3. Dissecting and transforming the ‘business as usual’ of global forest governance by giving voice to the marginalised

The main argument for the choice of a critical approach to unpacking global forest governance is perhaps also its main weakness, at least as viewed by some of the other analytical frames presented here: critical global political economy enables us to deconstruct and challenge dominant policy and practice and the underlying views and values purposefully, with the researcher taking an explicit position as to draw attention to inequalities embedded in historical and current structures and elevating ethical considerations, with the explicit aim to bring about change and identify transformative pathways towards a more just future.

Hence, when we ask how did global forest governance perform, the evidence base suggests that the destruction of forests, the related local livelihoods, and social and economic inequality in the global North and South is not reversed but continues, in some regions, at an even more accelerated speed (Ometto et al., 2022). Meanwhile, politics continue to promise to change away from a ‘business as usual’ forest loss on a nearly annual basis in declarations at global forest and climate conferences, in domestic debates, and through State, private sector and research proposing ever ‘new’ solutions. We define ‘business as usual’ (BAU) as unsustainable and unjust, as it reinforces unbalanced power structures that favour large-scale business interests driving unsustainable practices

and facilitating state capture of forests and forest lands.

In this context, the wider environmental and forest governance literature points to the need for change away from BAU, and, partly in contrast to the small wins proposed in the above section, the critical analysis calls for more radical or broader structural transformations. Here, transformational change is defined as a ‘just transition’ breaking up pre-existing power structures, reducing power imbalances and empowering actors that support sustainability, supported by changing discursive practices and incentive structures. A performing global forest governance delivering transformational change would be visible within three larger areas: i) we would see radical changes in the dominant economic system as well as in regulatory and governance frameworks, e. g. over the distribution of benefits; ii) removals of perverse incentives, such as subsidies and concessions that serve selective economic interests and stimulate deforestation and forest degradation; and iii) reforms of forest industry policies and regulations that effectively remove unsustainable large-scale extraction at the expense of local people and environments (Kanninen et al., 2007; Brockhaus and Angelsen, 2012).

Institutions understood as the rules of the game, as well as actor’s interests, ideas and information, can work in favour of the desired transformational change or maintain and reinforce BAU. For example, when formal power structures reflected in land laws remain as colonial legacies or when powerful Ministries deciding over large resources such as forests or agriculture resist change. Transformations require major institutional change to break these structures, even though theory provides different views over pathways for change, e.g. related to the effectiveness of new versus reformed institutions and organisations.

Interests, in particular material interests, often drive BAU, especially in situations where there is a lack of autonomy of the State from selected, private interests and a lack of transparency when decisions over forest resources are made. Transformation usually requires a shift in incentive structures and power relations to ensure societal needs and ambitions for just transitions are served rather than selected interests.

Ideas, beliefs and discourse, closely related to Interests and Information, can reinforce the status quo as they shape what and who is problematised in forest policy and practice, what is proposed as solutions or put forward as ‘the possible’ (e.g. benefits from forests for those who operate in the current economic system effectively and efficiently by linking local forests to global value chains, versus benefits for those who have moral rights based on equity considerations). Unpacking those problematisations and highlighting what is silenced can open pathways for transformation by shifting discursive practices towards social and environmental justice.

Information is an important source of power, as data, knowledge and evidence are often selected, interpreted, and put in context in ways that may reflect the interests of the information provider (e.g. when forest definitions are provided). Improved access to information or new information can contribute to shifts in power balances and facilitate desired changes.

All these processes may occur in parallel and have to enable and hamper effects on BAU or transformational change over time. For example, in the case of REDD+, we saw new coalitions coming about in the early 2000s, explicitly calling for environmental and social safeguards - remarkable when compared to other forest governance initiatives built within colonial or neoliberal structures and a market-based rationale. In addition, new incentives were mobilised to tip finance in favour of standing forests, and new power relations seemed imaginable, with safeguards being high on the agenda (Brockhaus et al., 2021). Yet, after the initial honeymoon phase, such transformations seem to be moving further and further away (McDermott et al., 2022b, 2022a, chapter 2). It seems that those formulating policy and those facilitating science policy dialogues lack a track record in successfully delivering change, which raises the question to which extent more radical transformations are required, in the way how forests are governed, by whom, and to the benefit of whom. Interesting avenues for more radical change might be social movements in Global South and North related to forest

governance and changes in legal and regulatory frameworks that would allow holding those accountable who benefit from inequality in the forest and land sectors (e.g. by strengthening accountability frameworks regarding climate action or finance of extractive activities). Research could inform these pathways with a critical analysis of performance and performativity in global forest governance.

5. Conclusions

This paper has compared three broad research programmes on global forest governance with their analytical frames for distilling their findings on the ‘performance’ of global forest governance. It has explored their different theoretical and epistemological foundations, as well as how the different authors of these frames have used them to guide their research programmes and choose their methodologies.

The first analytical frame, ‘fragmented regime complex’, emphasises the absence of coherence and coordination among multiple elements of an expanding and proliferating international forest regime complex (IFRC). While arguably a wide diversity of epistemologies and methodologies could be applied within this frame, the above author applies an ‘actor-centred political ethnography’. Such an approach enables the detailed tracking of how policies are ‘customised’ at global and regional as well as national and sub-national levels to serve the specific political interests of powerful actors. The utilities resulting from such fragmentation for the interests of different actor types, in turn, help explain how institutions and policies within the IFRC may be established and survive despite or even because of their ineffectiveness in addressing their stated objectives – e.g. stopping global or tropical deforestation or biodiversity loss. They also help us understand how a commonly communicated ‘international face’ of a governance arrangement may translate into quite distinct ‘domestic faces’ and their political realities.

On a ‘glass is half full’ note, a ‘global-local nexus’ perspective argues for a diffused and networked understanding of policy discourses, governance norms and power resources as fluid and dynamic entities ‘travelling’ through various scales (from the global to the local). This allows new coalitions of actors to catalyse, new ideas to emerge, and new resources to be mobilised while diffusing positive change within particular contexts and localities, even despite the failures of mainstream institutions. They highlight the importance of mixed methods research (MMR) to understand these processes, including discourse, network and power analysis, and the combination of detailed, qualitative, ‘in-situ’ studies, large N field experiments, systematic reviews and meta-analyses. The application of such methods has revealed how participatory governance, for example, has gained both discursive and institutional power and produced some measurable ecological and social benefits.

Finally, the ‘critical global political economy’ frame centres our attention on the power inequalities behind dominant IFRC approaches and their role in perpetuating inequalities in access to land and resources. This author advocates a ‘4I’ approach that draws attention to how power – and a socially and environmentally unjust ‘business as usual’ approach in forestry and forest governance – is constructed and reproduced through institutional stickiness and vested interests, through the dominance of certain actors in framing ideas of what actions are acceptable or possible, and through the selective use of information for political ends. This author advocates for mixed methods, including institutional, discursive and network analyses and qualitative comparative analysis.

Subtle variations in author ontologies and epistemologies may go partway to explaining some of the differences in their viewpoints and findings. The author advocating a ‘fragmented regime complex’ lens focuses primarily on explaining the formal and informal making of policy mainly based on analysing who is capable of acting and ‘who wins’. They place a premium on ‘positivism’ and ‘objectivity’ as the critical and unique contribution of science to global forest governance. The second author adopting the ‘global-local nexus’ broadens the focus

to include wider networks of actors, ideas, norms, rules and resources, both within and outside the making of specific policies. They argue for critical pragmatism, emphasising the need for academics to critique both positivist universalism and constructivist relativism while engaging with a multitude of theories, methods and studies to seek opportunities for ‘positive’ research, action and change. The third author advocating for ‘critical social science’ takes a reflexive view of science and academia as implicated in the power dynamics of what is being studied. They consider power dynamics in a yet broader context, beyond policy-makers and norm-setters to include ‘those who lose’, the disenfranchised, and call on academics to challenge and resist power inequalities, thereby allowing room for different kinds of knowledge, and pushing for transformative change.

Yet despite these ontological and epistemological differences, the findings of these three research frames share some strong and remarkable similarities. All three frames highlight the critical role of differing actor interests and power in shaping the design and outcomes of global forest governance. They likewise imply that progress in changing the current social and ecological trajectory of global forest governance requires significant redistributions and deliberate, novel power coalitions.

This paper’s effort to reflect diverse perspectives also raises ontological and epistemological questions about the role and, in particular, the political economy of academia itself and whose voices are included and excluded in it or by it (Wong et al., 2022). There is a growing body of research assessing inequalities in the distribution of academic literature between the global North and South, between and within countries, and across gender and social diversity, to name just a few (Collyer, 2018; Hagemann, 2022; Rudd et al., 2021). Furthermore, growing efforts to ‘decolonise’ research critique the relatively high value placed on ‘expert’ scientific knowledge as opposed to indigenous, local and place-specific knowledge (Thambinathan and Kinsella, 2021). These inequalities in voice and representation, while a systemic challenge in all fields, are arguably among their most acute for global forest governance, given its predominant focus on tropical deforestation in remote frontiers far removed from global negotiations (McDermott et al., 2022b, 2022a). We, therefore, conclude this paper with a call not only to ‘embrace’ diversity in researchers’ origins, research approaches, and methods but also to consider how it might be further expanded to achieve more triangulated insights and transformative futures for forests and people (Begemann et al., 2021).

Author statement

The authors declare that all four of them contributed on an equal footing to this manuscript. The first and corresponding author took care for the coordination among the authors, and for submission and resubmission of the manuscript.

CRedit authorship contribution statement

Bas Arts: Conceptualization, Investigation, Methodology, Supervision, Writing – original draft, Writing – review & editing, Data curation, Formal analysis, Funding acquisition, Project administration, Validation, Visualization. **Maria Brockhaus:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Supervision, Writing – original draft, Writing – review & editing, Visualization. **Lukas Giessen:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Supervision, Validation, Writing – original draft, Writing – review & editing. **Constance L. McDermott:** Conceptualization, Formal analysis, Methodology, Writing – original draft, Writing – review & editing.

Declaration of competing interest

No conflict of interests related to this article is to be reported.

Data availability

Data will be made available on request.

Acknowledgement

The authors wish to thank all researchers who contributed to their respective research programs.

References

- Afonso, H., LaFleur, M., Alarcón, D., 2015. Concepts of Inequality. Development Issues No. 1. UN/DESA. Available online at: https://www.un.org/en/development/desa/policy/wess/wess_dev_issues/dsp_policy_01.pdf.
- Andresen, S., 2013. International regime effectiveness. *Handbook Global Clim Environ. Policy* 304–319.
- Arts, B., 2000. Regimes, non-state actors and the state system. A 'structuralist' regime model. *Eur. J. Int. Rel.* 6 (4), 515–544.
- Arts, B., 2004. The local-global nexus: NGOs and the articulation of scale. *J. Econ. Soc. Geogr.* 95 (5), 498–511.
- Arts, B., 2012. Forest policy analysis and theory use: overview and trends. *Forest Policy Econ.* 16, 7–13.
- Arts, B., 2021. *Forest Governance: Hydra or Chloris?* Cambridge University Press, Cambridge.
- Arts, B., Buizer, M., 2009. Forests, discourses, institutions: a discursive-institutional analysis of global forest governance. *Forest Policy Econ.* 11 (5–6), 340–347.
- Arts, B., de Koning, J., 2017. Community Forest management: an assessment and explanation of its performance through QCA. *World Dev.* 96, 315–325.
- Arts, B., Behagel, J., van Bommel, S., de Koning, J., Turnhout, E., 2012. Prelude to practice: Introducing a practice based approach to forest and nature governance. In: *Forest and Nature Governance*. Springer, Netherlands, pp. 3–21.
- Arts, B., Kleinschmit, D., Pülzl, H., 2016. Forest governance: Connecting global to local practices. In: *Practice Theory and Research*. Routledge, pp. 218–244.
- Arts, B., Buijs, A., Gevers, H., et al., 2017. The Impact of International Cooperative Initiatives on Biodiversity (ICIBs). Research Report of the Forest and Nature Conservation Policy Group. Wageningen University & Research (the Netherlands (in collaboration with: PBL Netherlands Environmental Assessment Agency, the Hague).
- Arts, B., Ingram, V., Brockhaus, M., 2019. The performance of REDD+: from global governance to local practices. *Forests* 10 (10), 837.
- Assembe-Mvondo, S., Brockhaus, M., Lescuyer, G., 2013. Assessment of the effectiveness, efficiency and equity of benefit-sharing schemes under large-scale agriculture: lessons from land fees in Cameroon. *Eur. J. Dev. Res.* 25, 641–656.
- Bacchi, C., 2009. *Analysing policy*. Pearson Higher Education AU.
- Baynes, J., Herbohn, J., Smith, C., Fisher, R., Bray, D., 2015. Key factors which influence the success of community forestry in developing countries. *Glob. Environ. Chang.* 35, 226–238.
- Begemann, A., Giessen, L., Roitsch, D., Roux, J.L., Lovrić, M., Azevedo-Ramos, C., Winkel, G., 2021. Quo vadis global forest governance? A transdisciplinary delphi study. *Environ. Sci. Pol.* 123, 131–141.
- Bernstein, S., Cashore, B., 2012. Complex global governance and domestic policies: four pathways of influence. *Int. Aff.* 88 (3), 585–604.
- Biermann, F., Siebenhüner, B. (Eds.), 2009. *Managers of Global Change: The Influence of International Environmental Bureaucracies*. MIT Press.
- Biermann, F., Pattberg, P., van Asselt, H., Zelli, F., 2009. The fragmentation of global governance architectures: a framework for analysis. *Global Environ. Politics* 9 (4), 14–39.
- Börzel, T.A., 2002. Member state responses to Europeanization. *JCMS: J. Common Mark. Stud.* 40 (2), 193–214.
- Brockhaus, M., Angelsen, A., 2012. Seeing REDD+ through 4Is: A Political Economy Framework. *Analysing REDD+: Challenges and Choices*. Center for International Forestry Research, Bogor, Indonesia, pp. 15–30.
- Brockhaus, M., Di Gregorio, M., Wertz-Kanounnikoff, S., 2012. *Guide for Country Profiles*. Center for International Forestry Research (CIFOR), Bogor, Indonesia.
- Brockhaus, M., Di Gregorio, M., Carmenta, R., 2014. REDD+ policy networks: exploring actors and power structures in an emerging policy domain. *Ecol. Soc.* 19 (4).
- Brockhaus, M., Di Gregorio, M., Djoudi, H., Moeliono, M., Pham, T.T., Wong, G.Y., 2021. The forest frontier in the global south: climate change policies and the promise of development and equity. *Ambio* 50, 2238–2255.
- Bryant, R., 1996. Romancing colonial forestry: the discourse of 'forestry as progress' in British Burma. *Geogr. J.* 162 (2), 169–178.
- Bryman, A., 2001. *Social Research Methods* 4th Ed.
- Burivalova, Z., Hua, F., Koh, L.P., Garcia, C., Putz, F., 2017. A critical comparison of conventional, certified, and community management of tropical forests for timber in terms of environmental, economic, and social variables. *Conserv. Lett.* 10 (1), 4–14.
- Burns, S.L., Giessen, L., 2016. Dismantling comprehensive forest bureaucracies: direct access, the World Bank, agricultural interests, and neoliberal administrative reform of forest policy in Argentina. *Soc. Nat. Resour.* 29 (4), 493–508.
- Burns, S.L., Krott, M., Sayadyan, H., Giessen, L., 2017. The World Bank improving environmental and natural resource policies: power, deregulation, and privatization in (post-soviet) Armenia. *World Dev.* 92, 215–224.
- Carmenta, R., Barlow, J., Lima, M.G.B., Berenguer, E., Choiruzzad, S., Estrada-Carmona, N., Hicks, C., 2023. Connected conservation: rethinking conservation for a telecoupled world. *Biol. Conserv.* 282, 110047.
- Castells, M., 2000. *The Information Age: Economy, Society and Culture, Volume I. The Rise of the Network Society*, 2nd ed. Blackwell.
- Chancel, L., Piketty, T., Saez, E., Zucman, G. (Eds.), 2022. *World Inequality Report 2022*. Harvard University Press.
- Collyer, F.M., 2018. Global patterns in the publishing of academic knowledge: global north, global south. *Curr. Sociol.* 66 (1), 56–73.
- Cotula, L., 2012. The international political economy of the global land rush: a critical appraisal of trends, scale, geography and drivers. *J. Peasant Stud.* 39 (3–4), 649–680. <https://doi.org/10.1080/03066150.2012.674940>.
- Cox, R.W., Schechter, M.G., 2002. *The Political Economy of a Plural World: Critical Reflections on Power, Morals and Civilization*. Psychology Press.
- De Sy, V., Herold, M., Brockhaus, M., Di Gregorio, M., Ochieng, R.M., 2018. Information and Policy Change: Data on Drivers Can Drive Change—If Used Wisely. *Transforming REDD+*.
- Delabre, L., Boyd, E., Brockhaus, M., Carton, W., Krause, T., Newell, P., Wong, G.Y., Zelli, F., 2020. Unearthing the myths of global sustainable forest governance. *Global Sustain.* 3, e16.
- Den Besten, J., Arts, B., Verkooijen, P., 2014. The evolution of REDD+: an analysis of discursive-institutional dynamics. *Environ. Sci. Pol.* 35 (1), 40–48.
- DeSombre, E.R., 2000. *Domestic Sources of International Environmental Policy: Industry, Environmentalists, and US Power*. MIT Press.
- Di Girolami, E., Kampen, J., Arts, B., 2023. Two systematic literature reviews of scientific research on the environmental impacts of forest certifications and community forest management at a global scale. *Forest Policy Econ.* 146, 102864.
- Di Gregorio, M., Brockhaus, M., Cronin, T., Muharrom, E., 2012a. Politics and Power in National REDD+ Policy Processes. *Analysing REDD+: Challenges and Choices*. Center for International Forestry Research, Bogor, Indonesia, pp. 69–90.
- Di Gregorio, M., Price, S., Saunders, C., Brockhaus, M., 2012b. *Code Book for the Analysis of Media Frames in Articles on REDD*. CIFOR.
- Di Gregorio, M., Nurrochmat, D.R., Paavola, J., Sari, I.M., Fattorelli, L., Pramova, E., Locatelli, B., Brockhaus, M., Kusumadewi, S.D., 2017. Climate policy integration in the land use sector: mitigation, adaptation and sustainable development linkages. *Environ. Sci. Pol.* 67, 35–43.
- Dimitrov, R.S., 2005. Hostage to norms: states, institutions and global forest politics. *Global Environ. Politics* 5 (4), 1–24.
- Dkamela, G.P., 2011. *The Context of REDD+ in Cameroon: Drivers, Agents and Institutions*, vol. 57. CIFOR.
- Dwisatrio, B., Said, Z., Permatasari, A.P., Maharani, C., Moeliono, M., Wijaya, A., Lestari, A.A., Yuwono, J., Thuy, P.T., 2021. *The Context of REDD+ in Indonesia: Drivers, Agents and Institutions*, Update edition. CIFOR Occasional Paper.
- Fischer, R., Giessen, L., Günter, S., 2020. Governance effects on deforestation in the tropics: a review of the evidence. *Environ. Sci. Pol.* 105, 84–101.
- Fletcher, R., 2010. Neoliberal environmentalism: towards a poststructuralist political ecology of the conservation debate. *Conserv. Sci.* 8(3), 71–81.
- Friedrichs, J., 1990. *Methoden empirischer sozialforschung*. Springer-Verlag.
- Gale, F., Cadman, T., 2014. Whose norms prevail? Policy networks, international organizations and "sustainable forest management". *Soc. Nat. Resour.* 27 (2), 170–184.
- Gautier, D., Garcia, C., Negi, S., Wardell, D.A., 2015. The limits and failures of existing forest governance standards in semi-arid contexts. *Int. For. Rev.* 17 (2), 114–126.
- Giessen, L., 2013. Reviewing the main characteristics of the international forest regime complex and partial explanations for its fragmentation. *Int. For. Rev.* 15 (1), 60–70.
- Giessen, L., 2018. *The Two Faces of International Land Use Governance: Customizing the International Forest Regime Complex and its Domestic Consequences on Forest Policies through Bureaucratic Politics* (Habilitation dissertation). Georg-August-Universität Göttingen.
- Giessen, L. (n.d.). *Forests and the Two Faces of International Governance: The Politics of Customizing Regimes into Domestic Forest Policy*. Edward Elgar, Series on New Horizons in Environmental Politics (This Monograph is Based on Giessen 2018, and Accepted for Publication by the Publisher). (forthcoming).
- Giessen, L., Sahide, M.A.K., 2017. Blocking, attracting, imposing, and aligning: the utility of ASEAN forest and environmental regime policies for strong member states. *Land Use Policy* 67, 13–26.
- Giessen, L., Krott, M., Möllmann, T., 2014. Increasing representation of states by utilitarian as compared to environmental bureaucracies in international forest and forest-environmental policy negotiations. *Forest Policy Econ.* 38 (2014), 97–104.
- Giessen, L., Sarker, P.K., Rahman, Md.S., 2016. International and domestic sustainable forest management policies: distributive effects on power among state agencies in Bangladesh. *Sustainability* 8 (335), 1–28.
- Gronow, A., Brockhaus, M., Di Gregorio, M., Karimo, A., Ylä-Anttila, T., 2022. Policy learning as complex contagion: how social networks shape organisational beliefs in forest-based climate change mitigation. *Policy. Sci.* 54 (3), 529–556.
- Hagemann, S., 2022. Why does gender inequality in academic publishing persist? Lessons and recommendations. *Eur. Union Politics* 23 (4), 729–740.
- Hajjar, R., Oldekop, J., Cronkleton, P., et al., 2021. A global analysis of the social and environmental outcomes of community forests. *Nat. Sustain.* 4, 216–224.
- Harvey, D., 1996. *Justice, Nature and the Geography of Difference*. Blackwell, Oxford.
- Howlett, M., Ramesh, M., Perl, A., 2009. *Studying Public Policy: Policy Cycles and Policy Sub-Systems*. Oxford University Press, Oxford.
- Humphreys, D., 1996. *Forest Politics: The Evolution of International Cooperation*. Earthscan.
- Humphreys, D., 1999. The evolving forests regime. *Glob. Environ. Chang.* 9 (3), 251–254.
- Humphreys, D., 2008. The politics of avoided deforestation: historical context and contemporary issues. *Int. For. Rev.* 10 (3), 433–442.

- Isbell, Forest, Balvanera, Patricia, Mori, Akira S., He, Jin-Sheng, Bullock, James M., Regmi, Ganga Ram, Seabloom, Eric W., et al., 2023. Expert perspectives on global biodiversity loss and its drivers and impacts on people. *Front. Ecol. Environ.* 21 (2), 94–103. <https://doi.org/10.1002/fee.2536>.
- Kadlec, A., 2006. Reconstructing Dewey: the philosophy of critical pragmatism. *Polity* 38 (4), 519–542.
- Kanninen, M., Murdiyoso, D., Seymour, F., Angelsen, A., Wunder, S., German, L., 2007. Do Trees Grow on Money? The Implications of Deforestation Research for Policies to Promote REDD, vol. 4. Cifor.
- Kenney-Lazar, Miles, Ishikawa, Noboru, 2019. Mega-plantations in Southeast Asia: landscapes of displacement. *Environ. Soc.* 10 (1), 63–82.
- Keohane, R.O., Victor, D.G., 2011. The regime complex for climate change. *Perspect. Polit.* 9 (1), 7–23.
- Kimengsi, J.N., Grabek, J., Giessen, L., Balgah, R.A., Buchenrieder, G., 2022. Forest management institutions and actor-centered conflicts in sub-Saharan Africa: contemporary realities and future avenues for research and policy. *Forest Policy Econ.* 144, 102846.
- Kimengsi, J.N., Owusu, R., Charmakar, S., Manu, G., Giessen, L., 2023. A global systematic review of forest management institutions: towards a new research agenda. *Landsc. Ecol.* 38 (2), 307–326.
- Kleinschmit, D., Mansourian, S., Wildburger, C., Purret, A., 2016. Illegal Logging and Related Timber Trade-Dimensions, Drivers, Impacts and Responses. A Global Scientific Rapid Response Assessment Report, vol. 35. IUFRO (International Union of Forestry Research Organizations) Secretariat.
- Koppell, J.G., 2010. World Rule: Accountability, Legitimacy, and the Design of Global Governance. University of Chicago Press.
- Korhonen-Kurki, K., Sehring, J., Brockhaus, M., Di Gregorio, M., 2014. Enabling factors for establishing REDD+ in a context of weak governance. *Clim. Pol.* 14 (2), 167–186.
- Korhonen-Kurki, K., Brockhaus, M., Sehring, J., Di Gregorio, M., Assembe-Mvondo, S., Babon, A., Siteo, A., 2019. What drives policy change for REDD+? A qualitative comparative analysis of the interplay between institutional and policy arena factors. *Clim. Pol.* 19 (3), 315–328.
- Krasner, S.D., 1982. Structural causes and regime consequences: regimes as intervening variables. *Int. Organ.* 36 (2), 185–205.
- Krott, M., 2005. Forest Policy Analysis. Springer Science & Business Media.
- Krott, M., Giessen, L., 2014. Learning from practices—implications of the ‘practice based approach’ for forest and environmental policy research. *Forest Policy Econ.* 49, 12–16.
- Lamb, W.F., Wiedmann, T., Pongratz, J., Andrew, R., Crippa, M., Olivier, J.G., Minx, J., 2021. A review of trends and drivers of greenhouse gas emissions by sector from 1990 to 2018. *Environ. Res. Lett.* 16 (7), 073005.
- Leifeld, P., 2010. Discourse network analyser (DNA) manual. Max Planck Institute for Research on Collective Goods, Bonn (Available at <http://www.philipleifeld.de>).
- Levy, M.A., Young, O.R., Zürn, M., 1995. The study of international regimes. *Eur. J. Int. Rel.* 1 (3), 267–330.
- Lijphart, A., 1971. Comparative politics and the comparative method. *Am. Polit. Sci. Rev.* 65 (3), 682–693.
- Logmani, J., Krott, M., Lecy, M.T., Giessen, L., 2017. Customising elements of the international Forest regime complex in Poland? Non-implementation of a National Forest Programme and redefined transposition of NATURA 2000 in Białowieża Forest. *Forest Policy Econ.* 74, 81–90.
- Maryudi, A., Nurrochmat, D.R., Giessen, L., 2018. Research trend: Forest policy and governance - future analyses in multiple social science disciplines. *Forest Policy Econ.* 91, 1–4.
- McDermott, C., 2017. Whose forests, whose gain? *Nat. Clim. Chang.* 7, 386–387. <https://doi.org/10.1038/nclimate3300>.
- McDermott, C., Vira, B., Walcott, J., Brockhaus, M., Harris, M., Mensah Kumeh, E., de Mendonça Gueiros, C., 2022b. The Evolving Governance of REDD+. Assessing a Decade of REDD+, Forests, Climate, Biodiversity and People.
- McDermott, C.L., Humphreys, D., Wildburger, C., Wood, P., Marfo, E., Pacheco, P., Yasmi, Y., 2010a. Mapping the Core Actors and Issues Defining International Forest Governance, vol. 28. IUFRO (International Union of Forestry Research Organizations) Secretariat, pp. 19–36.
- McDermott, C.L., Kanowski, P., Cashore, B., 2010b. Global Environmental Forest Policies. London/WA DC, Earthscan, p. 360.
- McDermott, Constance L., Montana, Jasper, Bennett, Aoife, Gueiros, Carolina, Hamilton, Rachel, Hiron, Mark, Maguire-Rajpaul, Victoria A., Parry, Emilie, Picot, Laura, 2022a. Transforming land use governance: global targets without equity miss the mark. *Environ. Policy Gov.* 33, 245–257. [doi:10.1002/eet.2027](https://doi.org/10.1002/eet.2027).
- Milne, S., Ateljevic, I., 2001. Tourism, economic development and the global-local nexus. *Tour. Geogr.* 3 (4), 369–393.
- Ometto, J.P., Kalaba, K., Anshari, G.Z., Chacón, N., Farrell, A., Halim, S.A., Neufeldt, H., Sukumar, R., 2022. In: Pörtner, H.-O., Roberts, D.C., Tignor, M., Poloczanska, E.S., Mintenbeck, K., Alegría, A., Craig, M., Langsdorf, S., Löschke, S., Möller, V., Okem, A., Rama, B. (Eds.), Cross-Chapter Paper 7: Tropical Forests. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2369–2410. <https://doi.org/10.1017/9781009325844.024>.
- Pattberg, P., 2012. Transnational Environmental Regimes. Chapter 5 in Global Environmental Governance Reconsidered (edited volume). MIT Press, pp. 97–121.
- Peluso, N., Lund, C., 2011. New frontiers of land control: introduction. *J. Peasant Stud.* 38 (4), 667–681. <https://doi.org/10.1080/03066150.2011.607692>.
- Peluso, N., Vandergest, P., 2020. Writing political forests. *Antipode* 52 (4), 1083–1103.
- Pendrill, F., Gardner, T., Meyfroidt, P., et al., 2022. Disentangling the numbers behind agriculture-driven tropical deforestation. *Science* 377 (6611).
- Pham, T.T., Kengoum, F., Moeliono, M., Dwisatrio, B., 2021. Forest governance in DRC: an analysis from actors’ participation in REDD+ policy development. *Int. For. Rev.* 23 (1), 79–89.
- Popper, K.R., 2010. Die beiden grundprobleme der erkenntnistheorie, vol. 2. Mohr Siebeck.
- Rahman, M.S., Giessen, L., 2017. Formal and informal interests of donors to allocate aid: spending patterns of USAID, GIZ, and EU forest development policy in Bangladesh. *World Dev.* 94, 250–267.
- Rahman, M., Miah, D., 2017. Are protected forests of Bangladesh prepared for the implementation of REDD+? A forest governance analysis from Rema-Kalenga Wildlife Sanctuary. *Environments* 4 (2), 43.
- Rahman, Md.S., Sadath, N., Giessen, L., 2016. Foreign donors driving policy change in recipient countries: three decades of development aid towards community-based forest policy in Bangladesh. *Forest Policy Econ.* 68, 39–53. <https://doi.org/10.1016/j.forpol.2016.03.013>.
- Rayner, J., Buck, A., Katila, P., 2010. Embracing Complexity: Meeting the Challenges of International Forest Governance. A Global Assessment Report, vol. 28. IUFRO (International Union of Forestry Research Organizations) Secretariat.
- Ribot, J.C., Peluso, N.L., 2003. A theory of access. *Rural. Sociol.* 68 (2), 153–181.
- Rodríguez Fernández-Blanco, C., Burns, S.L., Giessen, L., 2019. Mapping the fragmentation of the international forest regime complex: institutional elements, conflicts and synergies. *Int. Environ. Agreem.: Politics Law Econ.* 19, 187–205.
- Rosenau, J., 1988. Patterned Chaos in global life: structure and process in the two worlds of world politics. *Int. Polit. Sci. Rev.* 9 (4), 327–364.
- Rudd, Lauren F., Allred, Shorna, Bright, Julius G., Ross, Darragh Hare, Nkomo, Merilyn Nomusa, Shanker, Kartik, Allen, Tanesha, et al., 2021. Overcoming racism in the twin spheres of conservation science and practice. *Proc. R. Soc. B* 288 (1962), 20211871. <https://doi.org/10.1098/rspb.2021.1871>.
- Sahide, M.A.K., Nurrochmat, D.R., Giessen, L., 2015. The regime complex for tropical rainforest transformation: Analysing the relevance of multiple global and regional land use regimes in Indonesia. *Land Use Policy* 47, 408–425.
- Sahide, M.A.K., Supratman, S., Maryudi, A., Kim, Y.S., Giessen, L., 2016. Decentralisation policy as centralisation strategy: Forest management units and community forestry in Indonesia. *Int. For. Rev.* 18 (1), 78–95. <http://www.ingentaconnect.com/content/cfa/ifr/2016/00000018/00000001/art00007>.
- Sarker, P., Rahman, S., Giessen, L., 2017. Empowering state agencies through national and international community forestry policies in Bangladesh. *Int. For. Rev.* 19 (1), 79–101. <http://www.ingentaconnect.com/contentone/cfa/ifr/2017/00000001/9/00000001/art00007>.
- Sarker, P.K., Rahman, M.S., Giessen, L., 2018. Regional governance by the South Asia cooperative environment program (SACEP)? Institutional design and customisable regime policy offering flexible political options. *Land Use Policy* 77, 454–470.
- Sarker PK, Lukas Giessen, Max Göhrs, Sohui Jeon, Minette Nago, Fredy D Polo Villanueva, Sarah L. Burns (n.d.): Qualitative Comparative Analysis of Forest Policy Outputs from Regional Regimes: Effects of Formalization, Hegemony and Issue-focus Around the Globe. Revisions submitted to International Environmental Agreements: Politics, Law and Economics. (unpublished).
- Schatz, E. ed., 2009a. Political Ethnography: What Immersion Contributes to the Study of Power? Chicago.
- Schatz, E., 2009b. Ethnographic immersion and the study of politics. In: Schatz, E. (Ed.), Political Ethnography: What Immersion Contributes to the Study of Power, pp. 1–22. Chicago.
- Scherrer, C., Garcia, A., Wullweber, J., 2023. Introduction to the handbook on critical political economy and public policy. In: Handbook on Critical Political Economy and Public Policy. Edward Elgar Publishing, pp. 1–18.
- Sen, A.K., 1997. From income inequality to economic inequality. *South. Econ. J.* 64 (2), 384–401.
- Shove, E., Pantzar, M., Watson, M., 2012. The Dynamics of Social Practices. Everyday Life and How It Changes. SAGE, London.
- Singer, B., Giessen, L., 2017. Towards a donut regime? Domestic actors, climatisation, and the hollowing-out of the international forests regime in the Anthropocene. *Forest Policy Econ.* 79, 69–79.
- Sivaramakrishnan, K., 1999. Modern Forests: Statemaking and Environmental Change in Colonial Eastern India. Stanford University Press.
- Smieszek, M., 2019. Informal International Regimes: A Case Study of the Arctic Council. University of Lapland.
- Solberg, B., Bergseng, E., Lindstad, B.H., 2017. Assessing national impacts of international environmental regimes for biodiversity protection and climate mitigation in boreal forestry—experiences from using a quantitative approach. *Forest Policy Econ.* 85, 147–160.
- Tashakorri, A., Teddlie, C. (Eds.), 2010. Mixed Methods in Social & Behavioural Research, 2nd ed. Sage, London.
- Termeer, C., Dewulf, A., 2018. A small wins framework to overcome the evaluation paradox of governing wicked problems. *Pol. Soc.* <https://doi.org/10.1080/14494035.2018.1497933>.
- Thambinathan, Vivetha, Kinsella, Elizabeth Anne, 2021. Decolonising methodologies in qualitative research: creating spaces for transformative Praxis. *Int J Qual Methods* 20. <https://doi.org/10.1177/16094069211014766>, 16094069211014766.
- Thomann, E., 2015. Customizing Europe: transposition as bottom-up implementation. *J. Eur. Publ. Policy* 22 (10), 1368–1387.
- Underdal, A., Young, O.R., 2004. Methodological Challenges in the Study of Regime Effectiveness. Regime consequences: Methodological Challenges and Research Strategies, pp. 27–48.
- Van Dijk, T.A., 1993. Principles of critical discourse analysis. *Discourse Soc.* 4 (2), 249–283.

- Villanueva, F.D.P., Tegegne, Y.T., Winkel, G., Cerutti, P.O., Ramcilovic-Suominen, S., McDermott, C.L., Giessen, L., 2023. Effects of EU illegal logging policy on timber-supplying countries: a systematic review. *J. Environ. Manag.* 327, 116874.
- Wibowoa, A., Giessena, L., 2015. Absolute and relative power gains among state agencies in forest-related land use politics: The Ministry of Forestry and its competitors in the REDD+ Programme and the One Map Policy in Indonesia. *Land Use Policy* 49, 131–141.
- Wigger, A., 2022. Continuing to fight the beast of the apocalypse: final reasons for a critical political economy approach to global political economy. *Global Polit. Econ.* 1 (1), 188–196.
- Wolford, W., 2021. The Plantationocene: a Lusotropical contribution to the theory. *Ann. Am. Assoc. Geogr.* 111 (6), 1622–1639. <https://doi.org/10.1080/24694452.2020.1850231>.
- Wong, G.Y., Luttrell, C., Loft, L., Yang, A., Pham, T.T., Naito, D., Brockhaus, M., 2019. Narratives in REDD+ benefit sharing: examining evidence within and beyond the forest sector. *Clim. Pol.* 19 (8), 1038–1051.
- Wong, G.Y., Moeliono, M., Bong, I.W., Pham, T.T., Sahide, M.A., Naito, D., Brockhaus, M., 2020. Social forestry in Southeast Asia: evolving interests, discourses and the many notions of equity. *Geoforum* 117, 246–258.
- Wong, G.Y., Holm, M., Pietarinen, N., Ville, A., Brockhaus, M., 2022. The making of resource frontier spaces in the Congo Basin and Southeast Asia: a critical analysis of narratives, actors and drivers in the scientific literature. *World Develop. Perspect.* 27, 100451.
- World Bank, 1991. *The Forest Sector*. World Bank Policy Paper, Washington, DC.
- Young, O., 2011. Effectiveness of international regimes: existing knowledge, cutting-edge themes, and research strategies. *PNAS* 108 (50), 19853–19860.
- Zhao, J., Krott, M., Liu, J., Giessen, L., Dong, J., 2022. Detecting formal and informal interests in forest governance. *MethodsX* 9, 101842.