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Disclosing or Obscuring?

The Politics of Transparency in Climate Governance

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Abstract (100 – 120 words)

Transparency is increasingly evoked within public and private climate governance arrangements as a key means to enhance accountability and improve environmental outcomes. We review assumed links between transparency, accountability and environmental sustainability here, by identifying four rationales underpinning uptake of transparency in governance. We label these democratization, technocratization, marketization and privatization, and assess how they shape the scope and practices of climate disclosure, and to what effect. We find that all four are discernible in climate governance, yet the technocratic and privatization rationales tend to overtake the originally intended (more inclusive, and more public-good oriented) democratization and marketization rationales for transparency, particularly during institutionalization of disclosure systems. This reduces transparency's potential to enhance accountability or trigger more environmentally sustainable outcomes.

Introduction: A Transparency Turn in Climate Governance

Transparency is subject to growing social science scrutiny as an increasingly important mechanism of global sustainability governance and politics [1–5, 51*]. In this article, we review recent scholarship on the nature and consequences of a transparency turn in global climate governance. We take as our point of departure the etymological meaning of transparency as "seeing through" or making visible [45], and assess the politics of *what is to be made visible, for whom and why* in global climate governance. In so doing, we look at the role that *targeted, intentional (voluntary and mandatory) disclosure* is playing in the climate realm. A variety of public and private climate governance arrangements, including, inter alia, the United Nations Framework Convention on Climate Change (UNFCCC) and the Carbon Disclosure Project (CDP), now call for transparency as a way to monitor and/or reward various actors' climate mitigation actions and performance. Such "governance by disclosure" [6] is intended to further a variety of goals, including holding disclosers to account and improving sustainability performance [11**, see also 47, 48]. Yet whether transparency is able to deliver on such promises remains unevenly examined, particularly in the climate realm.

The prospect of climate transparency is linked to the increasingly heterogeneous and fragmented nature of climate governance—encompassing multilaterally negotiated treaties, transnational municipal networks, subnational actors, bilateral agreements, and voluntary corporate initiatives [7-10, 50]. In such contexts, the demand and supply of transparency becomes multi-directional, flowing from and to a wide array of state and non-state actors, as well as consumers and citizens, rather than only from governments to interested publics. As such, the rationales for furthering transparency, and the governance benefits to be derived from disclosure, necessarily also vary, and may even be contrary to each other.

Many analysts of transparency begin with an optimistic view of its promise, only to subsequently highlight various perils in relying on disclosure in the quest for greater accountability and sustainability [12, 13, 31, 52]. Where transparency fails to achieve its aims, scholars point to a range of explanations. These include inadequate *design of disclosure*, such as the means by which information is to be disclosed (whether electronic or otherwise); the *attributes of information* disclosed, such as whether it is standardized, accurate, and comprehensible [14*]; or else the *quantity* of disclosed information (whether complete or partial) [15*]. Certainly, more disclosure is not always or necessarily better, given that the empowering potential of transparency can rapidly be eroded if excessive or irrelevant information overwhelms recipients and results in a "drowning in disclosure" [6, see also 46*]. Furthermore, in light of ever-greater flows of information, newly emerging *intermediaries of transparency*—auditors, verifiers, and certifiers of disclosed information—are becoming ever more important. These intermediaries constitute powerful new actors, with the potential to shape the impact of transparency in sustainability governance [16, 49].

While these aspects of a transparency turn are increasingly the subject of scholarly attention, we contextualize such analyses here by systematically assessing the broader context shaping the uptake of disclosure in sustainability governance. In particular, we identify four distinct (but potentially overlapping) **rationales** that, we posit, are driving a transparency turn in global environmental and sustainability governance. We label these democratization, technocratization, marketization, and privatization, and assess whether they are discernible in public and private climate governance initiatives. If so, how do they interact with each other, which ones dominate, and to what effect? Such questions remain both timely and little addressed. We turn next to elaborating further on the four rationales, and then reviewing whether and how they shape the scope and practices of climate disclosure. We do so through examining transparency arrangements in both state-led and private climate governance

arrangements. These include the multilateral climate negotiations under the United Nations Framework Convention on Climate Change (UNFCCC); the Carbon Disclosure Project, as one of the most prominent voluntary corporate carbon disclosure initiatives; and disclosure arrangements in (voluntary) carbon offset markets. In concluding, we draw on our discussion to (re-) assess the multifaceted nature of a transparency turn in climate governance, and its consequences for securing more accountable and environmentally sustainable outcomes.

Box 1: Glossary of key terms

UNFCCC: **United Nations Framework Convention on Climate Change** UNFCCC is the leading multilateral treaty addressing climate change, now in force for more than 20 years (since 1994). It has been ratified by 195 countries. http://unfccc.int/2860.php
KP: Kyoto Protocol The Kyoto Protocol is a sub-treaty under the UNFCCC that lays down mandatory emission reduction targets for so-called Annex 1 (i.e. developed) countries, for the period 2008-2012.
CDM: Clean Development Mechanism The CDM is one of the three "flexibility mechanisms" in the UNFCCC's Kyoto Protocol. The CDM allows developed countries to support emission-reduction projects in developing countries, and count the reduced emissions towards their own emission reduction targets. https://cdm.unfccc.int/
CDP: **Carbon Disclosure Project** The CDP is a non-profit organization specializing in the collection and disclosure of self-reported information about climate change, water and forest-risk date. https://www.cdp.net/en-US/Pages/HomePage.aspx
REDD+: **Reducing Emissions from Deforestation and Forest Degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries** REDD+ is a mechanism under UNFCCC whereby developed countries can financially support developing countries to reduce emissions from forested lands and invest in low-carbon development. http://redd.unfccc.int/

Why Transparency: Diverse Rationales for Disclosure

As we noted above, transparency is often invoked to further a variety of governance aims, given the multiple architects of "governance by disclosure" in a global sustainability context. Thus, public actors might promote transparency to enhance accountability, informed choice, and/or informed participation of citizens or states (i.e. what we call a democratization

imperative for disclosure). They might also promote transparency, however, as a key means to rationalize and improve decision-making, through reducing information asymmetries and/or requiring expert-driven, technical information to underpin "sound scientific" decision-making (what we refer to here as a *technocratization* imperative for disclosure). On the other hand, private actors might voluntarily embrace transparency to further corporate sustainability goals, improve their public image, and/or avoid more stringent government regulation (a *privatization* imperative driving disclosure). Both public and private actors might also do so, furthermore, to facilitate the creation, functioning, and expansion of markets for environmental goods, or for performance-based compensation (a *marketization* impetus for disclosure).

These four rationales embody different logics of environmental governance, which reflect in turn wider processes of economic globalization and global environmental politics. The marketization and privatization rationales are often aligned with globally hegemonic (neoliberal) discourses privileging market-based solutions, economic valuation of environmental goods and services, and an enhanced role for private authority in global environmental governance. For climate governance, this may mean interpreting transparency and disclosure in terms of the information entitlements and needs primarily of market-based actors (e.g. the climate risk disclosure rules of the US Securities and Exchange Commission). Market-relevant transparency can and is solicited from both public and private actors, as well as individual citizens (e.g. personal carbon budgeting or offsetting).

Use of a marketization rationale can also be consistent with state-based, multilaterally negotiated governance architectures—as with disclosure requirements underpinning the smooth functioning of market-based flexibility mechanisms, such as the Clean Development Mechanism (CDM) within the UNFCCC. The shift from marketization to *privatization* as an important imperative for disclosure refers, however, to governance systems where private

authority permeates all aspects of the disclosure and use of sustainability-related information. In climate governance, this might be reflected in the CDP, wherein the principal rationale for carbon disclosure is to assist private investment decisions, despite an initial expectation that civil society actors would use voluntarily disclosed corporate emissions data to make accountability claims against disclosers and/or compare their sustainability performance.

While the two rationales of marketization and privatization as rationales for disclosure share a preference for private authority, there remains a tension between them over the legitimate reach of this authority in sustainability governance. In the case of climate governance, a marketization rationale, with its functional benefits in terms of the open and efficient transfer of climate information, may be employed to serve a public good of climate transparency. However, by deepening disclosure obligations in the domains of voluntary governance and private authority, the privatization of climate governance may displace, and crowd out, the development of public legal obligations (both nationally and internationally) on the disclosure of relevant climate information. Instead, a privatization of climate transparency can signify deference to overriding norms of market valuation for private gain or protection of commercial confidentiality.

The democratization and technocratization rationales typically emerge from public actors, but are also supported by civil society actors, notably environmental and development NGOs. In the climate governance realm, a democratization imperative for transparency is often closely associated with state-based governance, whether national or international. Democratization imperatives linking transparency to a right to know, to exercise informed choice, demand accountability, and/or promote informed participation, tend to be strongest in liberal democracies [51:6], though even here climate transparency can be crowded out by countervailing sectional interests (e.g. fossil fuel lobbies) and state priorities (economic growth).

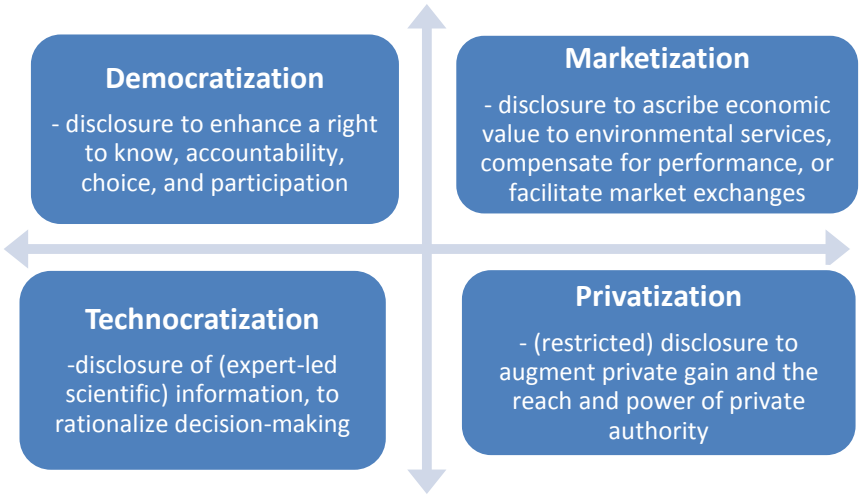
In an international context, as with other global environmental treaties, the penetration of climate transparency in the UNFCCC reflects wider transparency norms in public international law (e.g. prior notification), but is also constrained by the rules of voluntary consent and unanimity: UNFCCC parties must agree on their own rules of transparency, including those parties with non-democratic domestic regimes. This notwithstanding, a democratization rationale for disclosure is intended, in this context, to further the accountability of disclosers (primarily other states, but also private actors) and permit more open scrutiny of diverse states' engagement with, and burden sharing for, climate actions and support. At the same time, a technocratic rationale for transparency may also be discernible in this context, whereby a bureaucratic, expert-driven focus on *design* of adequate disclosure systems, particularly during the institutionalization of transparency arrangements, might serve to sideline or supersede an (original) democratization and accountability imperative for disclosure.

The technocratic rationale for transparency also plays a part in private climate governance systems. Indeed, as we elaborate further below, it has recently acquired increasing importance in carbon offset markets—particularly voluntary markets—in the wake of high-profile carbon fraud and widely acknowledged deficits in the credibility of carbon offset information. As such, a technocratization of (private) climate transparency is feasible, through development of elaborate systems of professional auditing and certification; or in response to accelerating technological gains and interconnected information and communication systems as they pertain to widespread release and use of climate data. These developments may also be compatible with a democratization rationale for disclosure, however, insofar as they allow for more inclusive and open production of relevant climate information by non-experts.

We turn next to assessing the extent to which these four rationales are driving uptake of transparency in climate governance, and the potential interlinkages between them. Figure 1

presents an overview of the four rationales for transparency's uptake discussed above. The figure highlights their dynamic character as well, with the arrows signifying the potential to shift from one to another during the institutionalization of specific disclosure initiatives, resulting in distinct governance effects from those originally anticipated. We return in our conclusion to the implications of this dynamic element (whereby some rationales might supersede others in the course of implementing disclosure-based governance).

Figure 1: Rationales for transparency's uptake in sustainability governance



Source: by authors.

Climate Transparency: Diverse Rationales and Their Effects

We turn here to whether and how these rationales manifest themselves in public and private disclosure-based climate governance arrangements, and to what effect.

Transparency in the UNFCCC: technocratization trumps democratization and marketization?

Transparency is increasingly at the heart of negotiations within the United Nations Framework Convention on Climate Change (UNFCCC), ostensibly as an important means to enhance accountability (and thereby presumably also the effectiveness) of climate mitigation

actions. This overarching democratization rationale for transparency can be traced back to the 2007 UNFCCC climate conference in Bali, where it was agreed that climate-related "commitments, actions and support" of all Parties were to be "measurable, reportable, and verifiable" (MRV) [17:3]. The 2007 Bali call for "transparency of actions and support" pertains to the current, pre-2020 phase of UNFCCC climate action, yet it has implications for transparency requirements in a post-2020 climate agreement, now being negotiated within the UNFCCC [for a discussion of these negotiations, see 18].

Contested negotiations over the scope, reach and architecture of these pre-2020 transparency systems came to a head, and almost derailed, the 2009 Copenhagen climate conference. A key conflict turned on the US demand for international *verification* of domestic, voluntarily undertaken, mitigation actions of developing countries, with China opposing this as an infringement of national sovereignty [19, 20]. Negotiations were characterized by a strong push from developing countries to maintain differentiation in design and stringency of MRV systems between industrialized countries, with binding mitigation obligations under the UNFCCC's Kyoto Protocol (so-called Annex I countries), and (non-Annex 1) developing countries. Transparency arrangements agreed at the subsequent 2010 Cancun climate meeting thus mandated two distinct MRV processes. These included, first, a process of "International Assessment and Review (IAR)" of climate mitigation actions reported by Annex 1 countries, to be undertaken by UNFCCC designated international experts. For the voluntary actions of non-Annex I countries, a process of "International Consultation and Analysis (ICA)" was agreed as a means to "increase transparency of mitigation actions and their effects" [21: paras 44 and 63].

The IAR and ICA processes have clear differences in terms of scope and timeframes for disclosure (with the former requiring more comprehensive and more frequent reporting from Annex I countries) [for details, see 22]. This ongoing institutionalization of

(differentiated) transparency systems within the UNFCCC's current climate regime is driven, as we noted above, by an original democratization rationale, insofar as the aim is to *render visible* the actions of all and to hold Annex I countries *accountable* for meeting mandatory climate mitigation obligations in the pre-2020 phase (both in terms of actions and support).

It is also worth noting that, in specific areas of UNFCCC action such as reducing emissions from forest-related activities (so-called REDD+), the rationales underpinning MRV systems go beyond such a democratization imperative. REDD+ is a financial mechanism to compensate developing countries for reducing forest-related emissions. As such, it embodies a "payment for ecosystems services" approach to climate governance, with transparency required as a precondition to receive compensation for reduced emissions or to permit offsetting of emissions [23, 24*]. Here, a *marketization* rationale thus underpins disclosure as well [25]. Furthermore, the compensation and/or offsetting is to occur between developed and developing countries, with the former compensating the latter for results-based performance in reducing forest-related emissions. As a result, in contrast to the more general IAR/ICA process, developing countries are required to establish mandatory (and relatively stringent) MRV systems in the case of REDD+. Establishing such transparency systems is, moreover, a precondition for (inclusive) participation of developing countries in REDD+.

Both the democratization and marketization rationales underlying UNFCCC MRV systems (whether voluntary or mandatory) have generated conflict, as evident in the institutionalization phases of these transparency systems. A particularly contentious issue has been the verification of reported actions, given that such verification can impinge upon national sovereignty and/or recast governance authority away from (some) states to "international experts" or other non-state actors [26]. As such, the design and execution of such systems of transparency become, simultaneously, sites of conflict and negotiation over

who bears foremost responsibility for taking action on climate change, and as such, who should be held accountable to whom, and for what.

This is evident, for example, in debates since 2010 on the modalities of the ICA process for developing countries, including the imperative for it to be "non-intrusive, non-punitive and respectful of national sovereignty", while also being cost-effective and within reach of all countries [21: para 63]. A key question here is whether international (i.e. third party) "consultation and analysis" relating to voluntary actions of developing countries hastens the dismantling of the so-called "fire-wall" between Annex 1 and non-Annex 1 countries established in the UNFCCC's Kyoto Protocol for the pre-2020 period, with regard to binding emission reduction obligations. Some see the ICA as having the potential to undermine the UNFCCC principle of "common but differentiated responsibilities" in taking action on climate change, insofar as it might result in "a de facto binding regime [for all], as countries' domestic targets would be verified and *progress reported internationally*" [27, italics added]. As such, the design of such systems reflects broader political conflicts over (differentiated) responsibilities for taking action on climate change in the UNFCCC context.

Even as this is the case, a technocratic impulse for disclosure is also becoming discernible in this context, particularly in the implementation phase of such MRV systems, wherein an expert-led, problem-solving approach tends to come to the fore. In institutionalizing the ICA (a process now getting underway), the focus may be shifting from contentious questions around the scope and verification to ensuring the *adequate set-up and functioning* of such systems, often through a focus on redressing capacity constraints or gaps in data availability. While the capacity constraints in developing countries are real, a technocratic imperative coming to the fore during institutionalization of current MRV systems may serve to shift attention to securing transparency *from those less able to immediately*

deliver it, i.e. capacity-constrained developing countries (yet also those with the fewest obligations to mitigate climate change in this multilateral context).

Somewhat similar debates are evident in relation to REDD+ MRV systems, wherein forests in developing countries are conceptualized as providing the ecosystem service of carbon sinks, with a carbon mitigation potential that can be measured, valorized, compensated, and/or marketed [28]. Such valorization is to occur at the national level, with states required to establish national-level REDD+ MRV systems, with varying degrees of national flexibility permitted with regard to divergence in scope, techniques, and data sources [25, 26, 29]. While the 2010 Cancun agreements noted that developing country REDD+ MRV systems should be "available and suitable for review as agreed by the conference of the parties" [70], an "independent review" of REDD+ MRV nonetheless remains a high-level political conflict over potential infringements of national sovereignty [26,30]. This became evident in the standoff between Norway (a key financier of REDD+) and Brazil, and the near collapse of REDD+ negotiations, at the Doha climate meeting in 2012 [53]. As stated then by Luiz Alberto Figueiredo, Brazil's under-secretary for environment, "No developing country will have international verification of its actions, especially if they are national policies" [53].

Such disputes underscore the political significance of REDD+ MRV systems, even as attention has now shifted to building capacity to monitor and report on forest carbon fluxes in developing countries (a technocratic impulse for MRV). The technical complexity of these systems simultaneously validates a call for capacity building as essential to secure the more inclusive participation of developing countries in REDD+, but also promotes an expert-driven institutionalization process that can be exclusionary, insofar as it reduces the prospects to debate the political implications of the choices being made. Furthermore, these mandatory REDD+ MRV systems are also perceived by developing countries as more stringent in their requirements than those that Annex 1 countries are required to rely upon in accounting for

their own land use, land use change and forestry (LULUCF) emissions (in the UNFCCC Kyoto Protocol context) [28]. This again implies a shifting burden of transparency to those less able to institutionalize MRV systems, also in the REDD+ context, with consequences for the purposed links between transparency, accountability and environmental effectiveness.

In sum, the discussion above highlights that the effectiveness of transparency as a way to secure more broad-based accountability of global climate actions (a democratization imperative) can only be considered in tandem with broader, contested, questions of who is to be held to account to whom in the first instance. While a marketization rationale for disclosure relates purportedly to a narrower, functional concern with compensating or offsetting emission reductions, this imperative for disclosure also reflects ongoing conflicts over the stringency and political reach of such MRV systems. Furthermore, in both instances, a technocratic approach to disclosure appears to gain ascendancy during institutionalization, which may further reduce the prospects for transparency to enhance accountability and improve sustainability.

Transparency in the CDP: does privatization trumps democratization?

The Carbon Disclosure Project (CDP) is the most significant voluntary mechanism advancing disclosure of corporate greenhouse gas emissions, energy use and exposure to deforestation risks. Founded in 2001, the CDP represents institutional investors holding, by 2014, $95 trillion of assets [32]. The CDP advances disclosure-based climate transparency, eliciting, through an annual questionnaire, information on climate-related risks and opportunities: by 2014 over 5000 companies responded to the 2014 questionnaire [32]. Individual public responses to the questionnaire are available on the CDP website, although CDP investor members can benefit from advanced comparative analysis of reported data. Environmental

governance research has often examined the CDP as a leading example of private authority-led transparency [33–35, 10].

The democratization rationale—as the "right to know"—is prominent in CDP self-representations of climate transparency, though the principal addressees of the information are institutional investors. Civil society use of CDP data is compromised by differential access to information: enhanced access to CDP data and analytics lies behind a membership paywall, while data comparability is limited across the questionnaires submitted by companies [33:216]. This limits the public accountability reach of CDP transparency, but is compatible with a private authority transparency system in which information is commodified and otherwise diluted by (neoliberal) marketization norms (e.g. lack of sanctions for non-compliance). CDP champions also a technocratization of climate information disclosure and use, focusing on managerial processes and financial auditing: this defers to a business argument that climate change governance is a matter of correcting information asymmetries and providing full information to investors, rather than recasting corporate responsibilities for climate risk and harm [35, 36].

It is not surprising then, that there is little evidence about the environmental effectiveness of the CDP and other corporate carbon disclosure systems, as major corporations do not appear to be shifting core product or marketing strategies in a low-carbon direction [33, 37*]. As other studies of voluntary reporting, such as the Global Reporting Initiative show [14*], despite vast quantities of data available through ever more extensive corporate reporting, the lack of specificity and comparability prevents both holding to account or any meaningful assessment of environmental performance patterns. The monitoring and analysis of environmental outcomes by voluntary disclosure systems is thus still in its infancy [11**].

Transparency in carbon offset markets: does privatization trumps marketization?

Carbon offset markets reflect the dominance in climate transparency of both marketization and privatization rationales. For regulated carbon markets associated with the UN climate regime, the marketization of climate information is situated within, and designed to serve, a state-based governance framework, while the voluntary carbon markets operate within an external, privatized governance domain. However, the two systems are increasingly interlinked, increasing the commodification of climate transparency, yet in a manner aligned with the interests of private actors. Thus, voluntary markets mirror, and anticipate strategically, the future direction of compliance markets. Without the state-centred, centralized structure of the latter, voluntary markets have multiple mechanisms for issuing credits, competing quality standards and disparate, individualized contracts. As these are private sector mechanisms, there is a lack of *public transparency* about their content and reach [10, 38]. A contradiction arises here, insofar as the business case for voluntary carbon offsets is that they reduce financial risks (e.g. legal and reputational risks) that may derive from information deficits regarding corporate climate liabilities. At the same time, economic returns for offset traders rely on securing private, proprietary access to important climate risk information within and across business sectors [36].

A democratization rationale for climate transparency also underlies the original creation of voluntary carbon markets, with environmentalists and investors viewing the public transparency of greenhouse gas emissions and emissions trading as instrumental to progress in climate mitigation. Yet this democratic rationale for disclosing corporate emissions-related information has been overtaken by the privatization rationale, affecting the institutional development of climate transparency. Since 2005, private enterprises have overtaken non-profit organizations as the main source of investment in voluntary carbon markets [39], and carbon market trading associations (e.g. the International Carbon Reduction and Offset

Alliance) are realigning climate transparency according to an agenda of corporate self-regulation, although, as with the CDP, a technocratic rationale is also used to justify this shift. For Paterson, the displacement of NGO-led carbon certification standards by industry-led schemes suggests a "corporate capture of the verification process" [8:249].

To be sure, these private and voluntary mechanisms have limited governance currency compared to (state-regulated) compliance carbon markets: despite their rapid recent growth, by 2013 voluntary carbon markets were worth only $379 million of an estimated $41 billion trading in global carbon markets [40]. However, their transparency norms and practices significantly shape the role of private authority in tackling climate change, and interact with state-centred emissions markets. The voluntary monetization of emissions reductions often derives from pre-registered and even rejected CDM projects. The opacity of the voluntary markets has created a high level of fraud, contributing, it is claimed, to a recent decline in the value of emission reductions (both voluntary and mandatory) [41]. According to INTERPOL, the lack of transparency of the voluntary carbon markets invites the fraudulent manipulation of information [42; see also 43, 44].

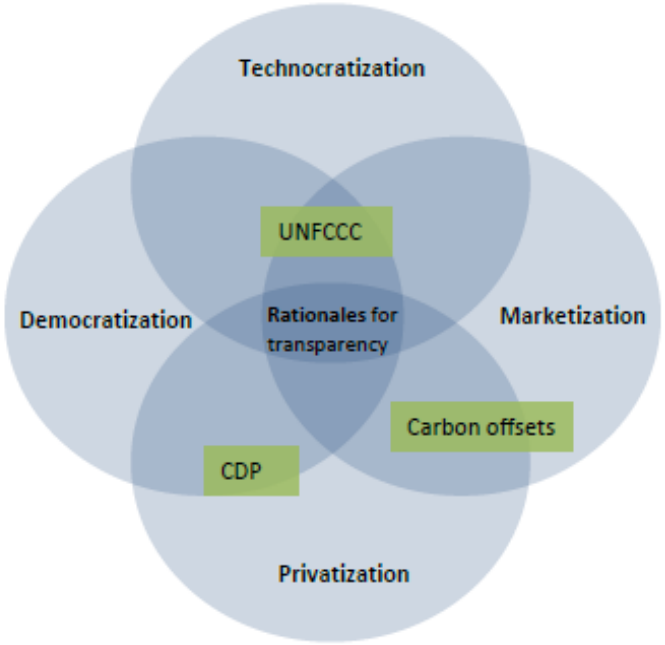
In an effort to increase transparency in mandatory carbon trading, in 2014 the CDM Executive Board launched an initiative to enhance transparency of credits for certified emissions reductions through a voluntary questionnaire on sustainable development benefits. This desire to reassure participants in compliance carbon markets characterized by falling demand and low prices attested to the failure of the climate offset sector to instil trust in its governance mechanisms: the privatized transparency of voluntary carbon offsets has exacerbated the concerns of civil society actors, and many states, over the credibility of carbon markets. The erosion of the early democratization imperative for public transparency, in favour of more privatized and exclusionary disclosure arrangements, has unsettled the legitimacy of carbon trading and, more generally, of global climate governance.

Conclusion

Our review has examined transparency's uptake and effects in climate governance, according to four overlapping rationales for disclosure —democratization, marketization, technocratization and privatization. Our findings suggest, most broadly, that the effects of climate transparency are inextricably linked to political and normative disagreements about the diverse goals of disclosure, which reflect, in turn, divergent views of whose actions should be made transparent, by whom, and to what end. This ensures that disclosure is itself a site of contestation, rather than a (neutral) means to help transcend political conflicts.

Figure 2 illustrates how the public and private climate governance arrangements examined here occupy particular zones of (dynamic) overlap between diverse rationales for disclosure. We find that these rationales permeate the heterogeneous and fragmented nature of climate governance: their political currency and inter-relationships, as briefly explored in this review, shape the transparency turn in climate governance. Furthermore, these rationales for disclosure are not always associated with straightforward, binary ascriptions of public and private authority. Thus, while the *democratization* and *technocratization* rationales have principally emerged from public actors, supported by civil society organizations, and reflect state-centred transparency norms, the disclosure of climate information in private governance mechanisms (e.g. voluntary carbon markets) is also driven by democratic norms of public transparency. The increasing professionalization and specialization of climate transparency has, however, seen democratizing imperatives blunted by rationalist managerial norms of technocratization, in which even climate information presented as "public" is restricted or rendered opaque to outsiders by the managerial and financial auditing interests of subscribing organizations (e.g. Carbon Disclosure Project) or the scientific and technical experts negotiating REDD+ MRV systems.

Figure 2: Transparency's competing rationales in climate governance



Source: authors.

Along with democratization, an original impetus for both public and private disclosure is a (neoliberal) privileging of market-based solutions to climate change. In the case of REDD+ MRV systems, such a *marketization* rationale for climate disclosure is consistent, as well, with state-based governance architecture. A shift to a more exclusionary *privatization* of climate transparency refers, however, to market-based governance architectures where private authority permeates all aspects of the disclosure and use of climate-related information. Thus, in the case of the CDP, the principal rationale for carbon disclosure is to assist private investment decisions, although civil society actors were originally assumed to be likely users of this data to make accountability claims against disclosers. While the two rationales of marketization and privatization may overlap, we find here that the latter often reshapes the former to secure a more comprehensive reach of private authority in climate governance.

Thus, a growing privatization and technocratization of climate transparency is evident in the disclosure initiatives examined here. This compromises the transformative potential of transparency, particularly as a mechanism for enhancing public accountability of those generating substantial or otherwise disproportionate greenhouse gas emissions. The more information on climate risk is appropriated as a private good—as in the evolution of carbon markets—the less likely it is that affected parties can participate in decision-making about the desirability or direction of climate governance choices. There is, furthermore, little sign that voluntary carbon disclosure systems are shifting production and investment strategies of corporations in a low-carbon, i.e. more sustainable, direction.

In multilateral climate governance, the prospect for greater transparency to enhance accountability remains inextricably tied to strong geopolitical disagreements over equity of action and burden sharing to mitigate climate change (with concurrently reduced prospects to stimulate ambitious climate action through disclosure alone). Such politically contested issues are often deflected, in the implementation phase, into a (seemingly apolitical) technocratic focus on building bureaucratic capacities, in order to enhance the scope and "soundness" of disclosed information as a means to rationalize decisions. Yet such technocratization (and privatization) imperatives run the risk of undermining the democratization and marketization rationales that initially underpinned the examined disclosure initiatives.

In sum, we identify here, across both private and public domains of authority, a *turn away* from transparency's more public-good oriented aims of enhanced accountability and improved environmental outcomes, particularly in the practice of global climate governance.

References

1. Florini A (ed.): *The Right to Know: Transparency for an Open World*, New York, NY,

USA: Columbia University Press; 2007

2. Gouldson A: Risk, regulation and the right to know: exploring the impacts of access to information on the governance of environmental risk *Sustainable Development* 2004 12: 136-149.
3. Brown HS, de Jong M, Levy DL: Building institutions based on information disclosure: Lessons from GRI's sustainability reporting. *Journal of Cleaner Production* 2009 **17**: 571–580.
4. Gupta A: Transparency to what end? Governing by disclosure through the biosafety clearing house. *Environmental and Planning C: Government and Policy,* 2010 **28**, 1: 128 – 144.
5. Mason M: Transparency for whom? Information disclosure and power in global environmental governance *Global Environmental Politics* 2008 **8**:8-13.
6. Gupta A: Transparency under scrutiny: Information disclosure in global environmental governance. *Global Environmental Politics* 2008 **8**:1-7.
7. Biermann F, Zelli F. Pattberg P, van Asselt H: The Architecture of Global Climate governance: Setting the Stage in *Global Climate Governance Beyond 2012: Architecture, Agency and Adaptation*. Edited by Biermann F, Pattberg P, Zelli, F, Cambridge, UK: Cambridge University Press, pp.15-24; 2010.
8. Paterson M: Resistance makes carbon markets. In *Upsetting the Offset: the Political Economy of Carbon Markets*. Edited by Bohm S, S. Dabhi S, London, UK: MayFly Books, pp.244-254; 2009.
9. Van Asselt H: *The Fragmentation of Global Climate Governance: Consequences and Management of Regime Interactions*, Cheltenham, UK: Edward Elgar; 2014.
10. Newell P, Paterson M: *Climate Capitalism: Global Warming and the Transformation of the Global Economy*, Cambridge, UK: Cambridge University Press; 2010.

11. ** Gupta A, Mason. M: A Transparency Turn in Global Environmental Governance. In *Transparency and Global Environmental Governance: Critical Perspectives*. Edited by Gupta A, Mason, M, Cambridge, MA, USA: MIT Press, pp.3-38; 2014.

This introductory chapter and the book as a whole provides the first comprehensive assessment of the transparency turn in global environmental governance and politics. It provides a framework to assess the uptake, institutionalization and effects of transparency, and applies it to a wide range of public and private disclosure-based environmental governance initiatives.

12. Lord K: *The Perils and Promise of Global Transparency*: *Why the Information Revolution May Not Lead to Security, Democracy or Peace*. State University of New York Press, Albany; 2006.

13. Mol A: The lost innocence of transparency in environmental politics. In *Transparency and Global Environmental Governance: Critical Perspectives*. Edited by Gupta A, Mason, M, Cambridge, MA, USA: MIT Press, pp.39-59; 2014.

14. *Dingwerth K, Eichinger M: Tamed transparency: how information disclosure under the Global Reporting Initiative fails to empower *Global Environmental Politics* 2010 **10**:74-96.

A clear analysis of the relationship between transparency and empowerment and the conditions necessary for transparency to empower, with a focus on the GRI as one of the most prominent private transparency initiatives.

15. *Fung A, Graham M, Weil D: *Full Disclosure: The Perils and Promise of Transparency*, Cambridge, UK: Cambridge University Press; 2007.

An authoritative and comprehensive account of the role of "targeted transparency" in domestic regulation, in the national context of the United States.

16. Langley P: Transparency in the making of global environmental governance. *Global*

Society 2001, **15**:73-92.

17. UNFCCC: Bali Action Plan, Report of the Conference of the Parties on its Thirteenth Session, held in Bali from 3 to 5 December 2007 FCCC/CP/2007/6/Add.; 2007.
18. Deprez A.. Colombier M. Spencer T. Transparency and the Paris Agreement: driving ambitious action in the new climate regime. IDDRI Working Paper, No. **3**/15, 2015.
19. Rajamani, L. The Making and Unmaking of the Copenhagen Accord. *International and Comparative Law Quarterly* 2010, **59** 3: 824-843.
20. Niederberger A, Kimble M: MRV under the UN climate regime: paper tiger or catalyst for continual improvement? *Greenhouse Gas Measurement and Management* 2011 **1**:47-54.
21. UNFCCC: Report of the Conference of the Parties on its Sixteenth Session, held in Cancun from 29 November to 10 December 2010, FCCC/CP/2010/7/Add 1. 2010.
22. Van Asselt, H. Saelen H. Pauw, P. Assessment and Review under a 2015 Climate Change Agreement. TemaNord 2015: 530. Denmark: Nordic Council of Ministers.
23. Corbera E. Problematizing REDD+ as an experiment in payments for ecosystem services. *Current Opinion in Environmental Sustainability* 2012, **4:** 612-619.
24. *Gupta A, Lövbrand E, Turnhout E, Vijge MJ: In Pursuit of Carbon Accountability: the Politics of REDD+ Measuring, Reporting and Verification Systems. *Current Opinion in Environmental Sustainability* 2012 **4**:726-731.

    The article assesses the two-pronged meaning of (carbon) accountability as the politics of *accounting* versus the politics of *being accountable*, with a focus on REDD+ MRV systems.
25. Gupta A, Vijge MJ, Turnhout E, Pistorius T: Making REDD+ transparent: the politics of measuring, reporting, and verification systems. In *Transparency and Global Environmental Governance: Critical Perspectives*. Edited by Gupta A, Mason, M,

Cambridge, MA, USA: MIT Press, pp.181-201; 2014.

26. Herold M, Skutsch M: Monitoring, reporting and verification for national REDD+ Programmes: two proposals. *Environmental Research Letters* 2011 **6**: 1-10.
27. CSE [Center for Science and Environment]:The climate end-game in Cancun: Sunita Narain. New Delhi: CSE, December 9 2010, available at http://www.cseindia.org/node/1936 (accessed 14 June 2014).
28. Lövbrand E: Bridging Political Expectations and Scientific Limitations in Climate Risk Management: On the Uncertain Effects of International Carbon Sink Policies. *Climatic Change* 2004 **67**:449-460.
29. Romijn E, Herold M, Kooistra L, Murdiyarso D, Verchot L. Assessing capacities of Non-Annex I countries for national forest monitoring in the context of REDD+', *Environmental Science and Policy* 2012 **19–20**:33–48.
30. CI [Conservation International]: *Outcome of Doha Climate Negotiations*. 2013 At http://www.conservation.org/Documents/CI_analysis_Doha_Outcomes_2012_26Nov-8Dec.pdf (accessed 14 June 2014).
31. Haufler V: Disclosure as governance: the Extractive Industries Transparency Initiative and resource management in the developing world. *Global Environmental Politics* 2010 **10**:53-73.
32. Carbon Disclosure Project: Climate change programme 2015 available at https://www.cdproject.net/en-US/Programmes/Pages/CDP-Investors.aspx (accessed 20 March 2015).
33. Knox Hayes J, Levy, D: The political economy of governance by disclosure: carbon disclosure and non-financial reporting as contested fields of governance. In *Transparency and Global Environmental Governance: Critical Perspectives*. Edited by Gupta A, Mason, M, Cambridge, MA, USA: MIT Press, pp.205-223; 2014.

34. Kolk A, Levy D, Pinkse, J; Corporate responses in an emerging climate regime: the institutionalization and commensuration of carbon disclosure *European Accounting Review* 2008 **17**:719-745.

35. MacLoed M, Park J: Financial activism and global climate change: the rise of investor-driven governance networks. *Global Environmental Politics* 2011 **11**:54-74.

36. Harmes A: The limits of carbon disclosure: theorizing the business case for investor environmentalism *Global Environmental Politics* 2011 **11**:98-119.

37. *Matisoff DC: Different rays of sunlight: Understanding information disclosure and carbon transparency *Energy Policy* 2013 **55**:579-92.

    A useful analysis of the potential for mandatory versus voluntary disclosure initiatives to stimulate reductions in carbon emissions, hence contributes to the ongoing debate over whether transparency is able to stimulate improved environmental outcomes.

38. Bumpus AG, Liverman DM: Accumulation by decarbonization and the governance of carbon offsets, *Economic Geography* 2008 **84**:127-155.

39. Marcello T: Voluntary carbon markets: successes and shortfalls. In Transparency International, *Global Corruption Report: Climate Change*, London, UK: Earthscan, pp.155-161; 2011.

40. Ecosystem Marketplace. *Sharing the Stage: State of the Voluntary Carbon Markets 2014*, Washington, DC: Ecosystem Marketplace http://www.forest-trends.org/vcm2014.php; 2014.

41. Martin P, Walters R: Fraud risk and the visibility of carbon. *International Journal for Crime, Justice and Social Democracy* 2013 **2**:27-42.

42. INTERPOL: *Guide to Carbon Trading Crime*, Lyon: INTERPOL Environmental Crime Programme; 2011.

43. Jacobs R: The Forest Mafia: How Scammers Steal Millions through Carbon Markets',

The Atlantic (11 October) 2013. http://www.theatlantic.com/international/archive/2013/10/the-forest-mafia-how-scammers-steal-millions-through-carbon-markets/280419/ (accessed 14 June 2014).

44. Transparency International: *Global Corruption Report: Climate Change*, London, UK: Earthscan; 2011.
45. Michener G, Bersch K: Identifying Transparency, *Information Polity* 2013 **18**: 233 – 242.
46. *Etzioni A: Is transparency the best disinfectant? *The Journal of Political Philosophy* 2010 **18**: 389-404.

    A conceptual analysis of the promise of transparency as a "public good" to further good governance, arguing that this promise is overstated and cannot be realized.
47. Fox, J: The uncertain relationship between transparency and accountability *Development in Practice* 2007 **17**:663-671.
48. Mason M: *The New Accountability: Environmental Responsibility Across Borders*, London, UK: Earthscan; 2005.
49. Mol A: *Environmental reform in the Information Age*: *The contours of informational governance.* Cambridge, U.K.: Cambridge University Press; 2008.
50. Pattberg P, Okechukwu E: The business of transnational climate governance: legitimate, accountable, and transparent?' *St Anthony's International Review* 2009 **5**:76-98.
51. *Gupta A: Transparency in global environmental governance: A coming of age? *Global Environmental Politics* 2010 **10**:1-9.

    The introduction to a special issue undertaking a comparative analysis of "governance by disclosure" in global (public and private) environmental governance initiatives.
52. Weil D, Fung A, Graham M, Fagotto E: The effectiveness of regulatory disclosure

policies. *Journal of Policy Analysis and Management* 2006 **25**:155–181.

53. SMH (Sydney Morning Herald). *Seeing REDD: Brazil, Norway in Tiff over Forest Monitoring*, December 6, 2012. Available at: http://www.smh.com.au/environment/climate-change/seeing-redd-brazil-norway-in-tiff-over-forest-monitoring-20121205-2awno.html (accessed Nov. 2, 2015)