



Is it only about science and policy? The ‘intergovernmental epistemologies’ of global environmental governance

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Abstract

Although international actors operating under the United Nations umbrella put much faith in the possibility of bridging science and policy through various institutional arrangements, research in the Science and Technology Studies (STS) tradition suggests that different *civic epistemologies* revolve around environmental degradation issues. *Civic epistemologies*, which imply peculiar understandings of knowledge across cultures, are not easily bridged. This paper contends that conflicting (civic) epistemologies inevitably emerge in epistemic debates at the intergovernmental level, with strong implications for how science and knowledge are dealt with and understood in environmental negotiations. Drawing on the experience of global soil and land governance and building on the idiom of *civic epistemologies*, the concept of *intergovernmental epistemologies* is introduced as an analytical tool to capture the diverging ways of appreciating and validating knowledge in intergovernmental settings. Placing state actors and their perspectives center stage, *intergovernmental epistemologies* account for the tensions, contestations and politicisation processes of international institutional settings dealing with environmental issues. The paper concludes discussing the consequences of *intergovernmental epistemologies* for the study of global environmental governance: it cautions about overreliance on approaches based on learning and all-encompassing discourses, emphasizing the value of using STS-derived concepts to investigate the complexity of international environmental negotiations.

Keywords Civic epistemologies · Environmental governance · Science and technology studies · Science-policy bridging · Soil and land · United Nations

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Introduction

Finding sound and acceptable solutions for issues related to environmental degradation can be particularly challenging, especially in conditions of high complexity. While such a complexity may take many forms, it often entails a combination of factors such as scientific uncertainty, conflicts of interests, diverging values (Pielke 2007), creating situations in which *normal science* is no longer sufficient to provide ultimate answers (Funtowicz and Ravetz 1993). In other words, most environmental issues are not amenable to a *linear model* (Beck 2011) logic of science 'speaking its truth to power'. Complexity increases in intergovernmental settings: here, with an enlargement of the scale of environmental governance compared to national or local contexts, potential solutions need to accommodate the broader and substantial diversity of interests, values and cultural perspectives espoused by international and global actors. Such scenarios make the linking of science to policy a very ambitious task, as much as the advisory role of science and scientists becomes more daunting.

Surely, international and global institutions coping with environmental degradation issues are not unaware of or neglecting the above challenges. In fact, over the last years, the United Nations (UN) system has experienced a significant increase in the number and variety of bodies and ad hoc platforms tasked to bridge science and policy: while organisations such as the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) represent a case in point, this trend has expanded well beyond the areas of climate and biodiversity. International actors operating under the UN umbrella seem to put much faith in the possibility of tackling global issues of environmental degradation by facilitating this link between science and policy through different institutional arrangements. Within the academic community, notably in the international relations (IR) literature focusing on the role of knowledge and ideas, arguments have been made in line with this viewpoint: one of the most influential contributions in this regard is Haas's (1992) *epistemic communities* model, which is based on the idea that scientists' shared values and norms can actively penetrate and influence the policy sphere.

From a Science and Technology Studies (STS) perspective, this functionalist understanding is rather problematic. In particular, research in the STS tradition has suggested that there are different *civic epistemologies* (Jasanoff 2005) revolving around environmental issues, including domains with a transboundary dimension (Jasanoff 2011). *Civic epistemologies*, which imply different and peculiar understandings of knowledge (and processes of knowledge validation) across cultures, may not be easily bridged. This exposes international scientific advice to high degrees of contestation (Peterson 2019; Kohler 2020), with a mix of epistemic and political tensions arising within and about various international advisory and assessment mechanisms, including the IPCC (Lahsen 2004; Biermann 2002, 2006; Fogel 2005) and the IPBES (Vadrot 2014; Borie and Pesche 2016; Arpin et al. 2016).

Such tensions and differences in civic epistemologies have significant impacts on global environmental governance, in particular on the variety of



intergovernmental mechanisms and multilateral environmental agreements (MEAs) with which it is studied. In this respect, this paper contends that conflicting (civic) epistemologies inevitably emerge in scientific debates at the intergovernmental level, with strong implications for how science and knowledge are dealt with and understood in international environmental negotiations. Notably, I claim that such scenarios may pose challenges to learning processes in the framework of international organisations dealing with issues of environmental degradation.

Conflicts and divergences surface since international contexts are multifaceted and dynamic arenas, in which differences that are firmly established in national settings (such as the dichotomy between science and politics) become much more blurred. Drawing on the experience of global soil and land governance and building on the idiom of *civic epistemologies*, I propose the concept of *intergovernmental epistemologies* as a tool to capture these manifestations of different ways of appreciating and validating knowledge in intergovernmental settings. I develop this concept based on the analysis of science-policy interactions within the United Nations Convention to Combat Desertification (UNCCD) and the Global Soil Partnership (GSP) of the Food and Agriculture Organisation (FAO).

Intergovernmental epistemologies reveal the importance of not discounting the role of member states' discourses with a view to understanding how science and knowledge about global environmental issues are construed, negotiated and institutionalised. In contrast with IR constructivist accounts based on macro-discourses of global environmental politics (e.g., Bäckstrand and Lövbrand 2019), this concept contributes to novel understandings of the role of expertise in international politics by incorporating state agency and discourses into the 'epistemic practice' generation of expertise studies in IR (Bueger 2014).

Building on IR's increasing attention to the politics of expertise, the concept of *intergovernmental epistemologies* also provides an opportunity to deepen the theoretical dialogue between IR and STS. In this respect, the paper concludes that concepts inspired by the STS tradition can serve as useful analytical devices to study knowledge- and science-policy interactions at the global scale of environmental governance, offering valid alternatives and challenges to theoretical understandings based on an ontological distinction between science and policy, such as the 'epistemic communities' model.

The paper is structured as follows. After this introduction, a theoretical section is developed, considering the relevance of STS for the global sphere and introducing the concept of *intergovernmental epistemologies*. Subsequently, the two empirical cases are presented and analyzed, focusing on the occurrence of *intergovernmental epistemologies*. Finally, the results of the analysis based on the theoretical starting point are discussed and conclusions are drawn regarding the implications of *intergovernmental epistemologies* for science and knowledge in global environmental governance.



Theoretical background

Linking science and policy: IR's increased focus on expertise

The role of expertise and scientific advice has not traditionally been a primary focus within IR scholarship. For several years, the notion of 'epistemic communities' (Haas 1992) has been the dominant conceptual approach in the field in order to make sense of the relationship between science and policy. Over the years, however, the attention on expertise has increased within the IR community. This is visible, for instance, in Bueger's (2014) heuristic mapping of the historical understandings of expertise in the IR field based on expert communities with causal influence, constitutive discourses, and performative practices. In a similar vein, the renewed interest in this topic is demonstrated by Leander's (2018) analysis and discussion of the challenges brought by 'transgressive' expert practices to conventional understandings of stable and authoritative expertise.

Such moves have been accompanied by a growing interest in engaging with the STS field not only from a reflexive perspective (Bueger and Gadinger 2007) but also through applied approaches, building on STS research and/or adopting its analytical tools (Allan 2017; De Pryck 2021; Hughes and Vadrot 2019; Kranke 2020).

Notwithstanding these trends, IR efforts to seize STS performative capacity are still in their infancy. Furthermore, analytical difficulties may emerge in the operationalisation of STS concepts in the international sphere, due to the contingent and context-dependent orientation of STS theory. The next subsections will suggest a possible pathway to fruitfully pursue this IR-ST dialogues.

The potential of critical STS

Questions about the dynamics and challenges of the relation between science and policy have lengthily animated debates within the STS community. A number of studies in this field also formulated conceptual solutions aimed at striking an 'optimal balance' or ensuring a 'better dialogue' between the two sides. These included not only calls for achieving an ideal form of scientific advice (e.g. *serviceable truths*, Jasanoff 1990; *epistemic* and *political robustness*, Lentsch and Weingart 2011), but also possible innovations for institutional design (*honest brokers*, Pielke 2007; *boundary organisations*, Guston 2001).

Furthermore, such questions inspired and spurred policy-oriented academic contributions among scholars concerned with the role knowledge for sustainable development: spearheaded by conceptual cornerstones such as *credibility*, *legitimacy* and *saliency* (Cash et al. 2003), this strand of literature harnesses STS idioms like *co-production* in a prescriptive way, trying to shed light on the conditions conducive to *usable* knowledge (van Kerkhoff and Lebel 2015; Clark et al. 2016; van Kerkhoff and Pilbeam 2017).

Yet, while the above literature addresses problems that are often described as 'wicked' (Rittel and Webber 1973), it also displays a somewhat deterministic orientation, in the sense that it tends to shy away from tackling the trade-offs involved in



knowledge- and decision-making and to overlook the challenges deriving from the political complexity of international and intergovernmental settings.

In this respect, if one follows a critical perspective, the STS tradition provides deeper analytical tools. By problematizing enduring paradigms, such as the ‘linear model’ (Beck 2011; Stirling 2008; Forsyth 2003), this tradition contributes to significantly reconsider the relations between expertise and policy side. Based on the premises that science and expertise are far from neutral, decontextualised and universal (Nelkin 1995; Jasanoff and Martello 2004), it also shows how ‘more’ and allegedly ‘better’ information can actually exacerbate conflicts rather than help solving them (Sarewitz 2004; Pielke 2007).

These ideas are in line with other influential work within STS which tries to shed light on why the relation between science and policy is often anything but straightforward. A seminal contribution in this respect is by Jasanoff (2005), who coined the idiom of *civic epistemologies* to describe how knowledge is received and validated differently across nations and cultures.

STS for the global scale

In her comparative study between Germany, UK and the USA, Jasanoff defines *civic epistemologies* as ‘culturally specific, historically and politically grounded, public knowledge-ways’ of evaluating science and as the means by which ‘knowledge comes to be perceived as reliable in political settings, and how scientific claims, more specifically, pattern as authoritative’ (2005: 249–50). Her domestic-based case studies and language (e.g. ‘human beings in contemporary polities’ as ‘knowledgeable agents’, 2005: 270) suggest that Jasanoff did not envisage *civic epistemologies* as a notion that could easily travel beyond the national level of democratic societies. Only later on, calling for ‘cosmopolitan knowledge’ and ‘global civic epistemologies’ to combat climate change (Jasanoff 2011), she seemed to take the international dimension more decisively into account. In any case, the concept of *civic epistemologies* has been evoked in recent work on science-policy interaction in international environmental governance: while Lidskog and Sundqvist (2015: 8) use it to reiterate the idea that the credibility of knowledge is always contextual and that ‘particular science-policy relationships may be effective in one culture but not in another’, Beck and Forsyth (2015: 128) refer to it as useful ‘to analyze how the IPCC relates to various political cultures and their culturally specific ways of creating, understanding and assessing public knowledge’.

In fact, Jasanoff repeatedly refers to *civic epistemologies* as something directly linked to ‘political cultures’, which she defines as “systematic means by which a political community makes binding collective choices” (2005: 21). Although acknowledging that culture is “a notoriously slippery concept”, she claims that ‘political cultures’ is what one should look at in order to account for cross-national divergencies with respect to how policy problems are construed (Jasanoff 2005: 21–22). Sharing Jasanoff’s awareness about such ‘slipperiness’ (or inherent risk of ambiguity), I put forward the idea that ‘cultures’, encompassing differing values and worldviews, can be a central feature of transnational settings too. Here culture is still



'political' (in the sense that it contributes to animate a political debate), although in a specific 'intergovernmental' sense: rather than being the result of domestic deliberations, it emerges during political negotiations at the international level.

It should be acknowledged that the STS literature has started to look at the international scale only recently, as most STS efforts in analyzing the science-policy interface have historically been conducted within domestic and regional contexts (Kohler 2020: 20). Attempts to operationalise STS globally tended to maintain a domestic orientation and to echo the functionalism of the *epistemic communities* model (Haas 1992) on which they built (see Morisse-Schilbach 2015, on democratisation through science). Furthermore, despite calls for an enhanced dialogue between STS and IR (Esguerra 2015; Lidskog and Sundqvist 2002, 2015; Orsini et al. 2017; Morin et al. 2017; Berling and Bueger 2015), there was also resistance in adopting STS understandings within the IR field (see, for instance, Compagnon and Bernstein 2017 on the concept of *boundary organisation*). In that respect, one may find the idea of *civic epistemologies* valuable to describe domestic contexts, but unsuited to account for international environments and intergovernmental settings.

However, there may be good reasons not to throw the baby with the bathwater. In fact, as much as 'globalizing instincts' that tend to erase differences (Hulme 2010) do not go uncontested (Jasanoff and Martello 2004), tendencies towards 'ontological globalism' displayed by the UN agencies are still met with 'with individualism, nationalism, and imperialism' (Miller 2015). Furthermore, differences between science and politics, facts and values, tend to become even more blurred and flexible in fluid, multifaceted and rapidly changing international contexts, where 'definitions and standards for expertise are deeply contested across cultural and geopolitical divides, as are notions of appropriate political institutions for carrying out public sector management for the planet as a whole' (Miller 2001: 485). Following this perspective, the notion of *civic epistemologies* may come to serve a wider purpose.

'Intergovernmental epistemologies'

The concept of *civic epistemologies* is not immune from limitations. In particular, some STS scholars have criticised understandings of the institutionalisation of science-policy boundaries in terms of 'national style' as too static and homogenizing, pointing to shortcomings in accounting for short-term changes and contingent dynamics (Halffman and Hoppe 2005: 136). However, treating the nation as a unit of analysis offers the analytical advantage of enabling cross-country comparisons. In particular, the *civic epistemologies* idiom is better-equipped than other STS concepts used to account for cross-country differences. It is broader, for instance, than *epistemic lifestyles* (Shackley 2001) or *evidential cultures* (Collins 1998) which focus on knowledge production only. The potential application of *civic epistemologies* to the international environmental sphere can be even better appreciated if one observes the tensions deriving from emerging economies' and Global South countries' contestation in the climate arena: typical examples of this strong political dimension are claims to epistemic sovereignty (Mahony 2013) and the mistrust of science when perceived as a hegemonic tool (Lahsen 2007). This is consistent with research in



global environmental governance showing that UN member states' interpretations of science may vary significantly (Lövbrand 2014; Biermann 2006; Beck 2012; Underdal 2000).

In light of the above, and based on Miller's (2001) argument that the intricate relations between science and policy can be compounded even more when faced with the cultural variety of international multilateral settings, I put forward an application of *civic epistemologies* that goes beyond the domestic sphere: while still understanding the concept as a tool to appreciate the different ways in which science and knowledge claims are assessed across different countries, cultures and societies, I apply it to the global level of intergovernmental negotiations and reformulate it in terms of *intergovernmental epistemologies*.

Intergovernmental epistemologies are the different ways in which UN member states react to knowledge-relevant topics or agenda items during intergovernmental negotiations on the environment. They should not be understood as fully-fledged discourses of global environmental governance, but rather as micro-discourses resulting from the states' reactions. Some of these reactions or manifestations may escalate, leading to a perception of tension, which helps to detect them during official meetings. *Intergovernmental epistemologies* are enacted by state delegates, which act as proxies for UN member states (thus, references to the latter have to be understood in a metonymical sense).

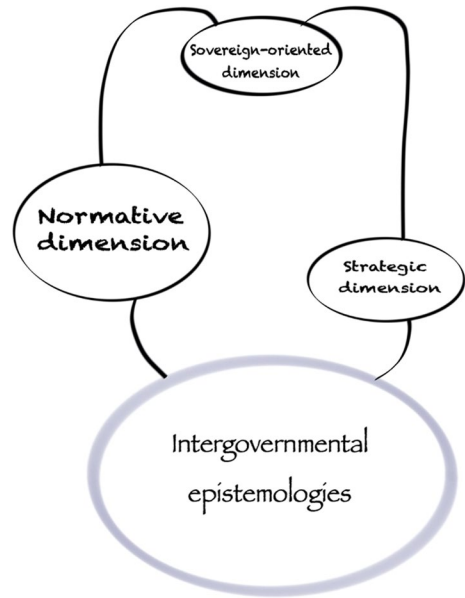
Intergovernmental epistemologies serve both a political and epistemic function, because they are embodied in the speech of member states' delegates, as they attempt to make knowledge-relevant claims appear authoritative and credible in intergovernmental fora. In this sense, they blur the divide between politics and knowledge as they encompass both political statements (which have a reflection on the epistemic resources of a particular forum) and epistemic considerations (which have political implications). In order to be understood as manifestations of *intergovernmental epistemologies*, such statements or considerations need to take place in intergovernmental fora in which environmental degradation issues are debated and display one of the following dimensions: *normative*, *strategic* or *sovereign-oriented*.

The *normative* dimension pertains to ideational and ideological aspects and it is typically manifested through appeals to particular forms of knowledge (e.g. science or traditional knowledge), cultural elements (e.g. religion) or social order (e.g. gender). The *strategic* dimension relates to procedural aspects and material concerns which prompt state delegates to carry out a variety of practices (e.g. expressing opinions on the way resources are used, for instance by requesting additional funding or asking to avoid duplication of work; delaying or hindering the uptake of new epistemic aspects of an environmental problem in the scope of a particular forum; calling attention to external fora, actors or institutions that are of strategic importance for a country). The *sovereign-oriented* dimension is a combination of the *normative* and *strategic* dimensions: it mainly takes the form of defensive stances in discussions of matters which imply both key ideological underpinnings and strong material interests and for a country (land tenure governance is a classic example).

While the *normative* dimension is deductively derived from the semantic meaning of *intergovernmental epistemologies*, the *strategic* dimension is uncovered inductively from the empirical material. As a result, an important hierarchy exists



Figure 1. The three dimensions of intergovernmental epistemologies.



between the *normative* and the *strategic* dimensions: whereas the former is at core of the concept of *intergovernmental epistemologies*, the latter plays an accessory role (see Fig. 1). The *sovereign-oriented dimension* is determined deductively, drawing on Krasner's (2001) understanding of sovereignty as resilience to both ideational and material pressures. By proposing a conceptualisation that accounts for both ideational and material factors, I follow the approach advocated by Sørensen (2008) in favor of 'analytical eclecticism' in IR.

By placing member states and their cultural differences center stage, the concept of *intergovernmental epistemologies* differs from more traditional IR constructivist approaches focusing on discourses (for example, presenting the discourses dominating the institutional setting of international climate governance, Bäckstrand and Lövbrand 2019 attach particular importance to the role of non-state actors as well as to the content of UN official documents). Instead, through a focus on live interactions in the meeting rooms, *intergovernmental epistemologies* seek to unearth the underlying tensions that are often hard to detect in official language and mainstream discourses. This approach builds on recent research on intergovernmental environmental negotiations highlighting tensions and contestation on epistemic issues among state actors (e.g. Hughes and Vadrot 2019, discussing *weighted concepts* in IPBES).

Following this performative orientation, the concept introduced in this paper feeds into the conceptualisation of expertise as 'epistemic practice' (Bueger 2014). Bueger identifies the latter as the 'third generation' of expertise studies in IR, locating it in "an ontological middle ground between actors and discourses" (2014: 48). Incorporating both state agency and discourses into this conceptualisation, the notion of *intergovernmental epistemologies* opens up new theoretical and empirical



avenues for the understanding of expertise in international politics. In fact, even though the concept of *intergovernmental epistemologies* does not necessarily contradict theories about institutional learning and the influence of international bureaucracies as agents of global environmental governance (Siebenhüner 2008; Biermann and Siebenhüner 2009), it highlights the role played by principals (member states) in intergovernmental settings. Moreover, it suggests to consider international environmental organisations as arenas of dynamic contestation, where depoliticisation processes are only apparent (Petiteville 2016) and conflict-laden issues hardly addressed openly (see, for instance, Löfmarck and Lidskog 2017 on IPBES). Relatedly, understanding international environmental negotiations through the lens of *intergovernmental epistemologies* offers a conceptual and analytical alternative to approaches oriented towards normative convergence, including the ideal of scientific consensus and the mantra of ‘speaking truth to power’. In this respect, this alternative understanding exposes the limitations of the ‘epistemic communities’ concept as well as the underlying assumptions upon which it relies, notably the ‘linear model’.

The cases

Case selection and methodological approach

Even though abundant academic attention has been devoted to the governance and science-policy interface of thematic areas such as climate change and biodiversity, the same cannot be said about environmental degradation pertaining to soil and land. Over the last years, the latter have begun to occupy important positions on the international policy agenda (Montanarella and Lobos Alva 2015; Boer et al. 2017; Dooley et al. 2015), as also reflected by the introduction of a specific target in the framework of the Sustainable Development Goals (Target 15.3: ‘By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world’).

In light of the above and of the importance of generating more knowledge in this thematic area, my empirical analysis focuses on the United Nations Convention to Combat Desertification (UNCCD) and the Global Soil Partnership (GSP) of the Food and Agriculture Organisation (FAO). There are three reasons behind the choice of these two cases: (a) there are significant policy and scientific overlaps in the scope of the organisations at hand, dealing with land and soil degradation respectively; (b) even though, within UN landscape, the two organisations are unique in their thematic similarity, they display very different historical and political trajectories and reproduce in many ways the North-South divide; c) the particular combination of similarities and differences of the two cases make them ideal empirical settings for developing and deploying the concept of *intergovernmental epistemologies*, which is expected to yield insights into the different ways of understanding and dealing with knowledge within UN intergovernmental settings.

The methodological approach consists of participant observation conducted during the 14th Session of the Conference of the Parties to the UNCCD (COP 14), held in New Delhi in September 2019, and the 7th session of the Plenary



Assembly of the Global Soil Partnership (GSP), held in Rome in June 2019. The study of the live interactions occurring in intergovernmental meetings is crucial for the application of the theoretical approach based on *intergovernmental epistemologies*: the latter expose standpoints and tensions which are not easily retrievable in official language and mainstream discourses. In this sense, feeding into recent and innovative ethnographic trends focusing on multilateral fora as central sites of environmental knowledge-making (Vadrot 2020; O'Neill and Haas 2019), the concept of *intergovernmental epistemologies* developed in this paper also provides a methodological contribution to the study of global environmental politics.

The field material is corroborated by information obtained in interviews with 25 UN officials, member states' representatives as well as experts affiliated with the scientific advisory mechanisms of the two organisations. The interviews, which were conducted either in person or remotely (by telephone or Skype), were coded and analyzed through directed content analysis (Hsieh and Shannon 2005).

The UNCCD

Established in 1994, the United Nations Convention to Combat Desertification (UNCCD) is one of the so-called three 'Rio Conventions'. In fact, as much as the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD), it takes its origin from the 'Earth Summit' held in Rio de Janeiro in 1992. Yet, for many years, the UNCCD hardly had the same backing and visibility of its two 'siblings', being even called the 'convention of the poor' (cf. Cowie et al. 2007: 228). Achieved with difficulty, only at the end of arduous North-South negotiations (Najam 2006), the UNCCD is widely considered a hybrid between an environment and a development convention (Chasek 1997). With such broad scope and ambiguity between the socio-economic and environmental dimensions, the Convention adopted a definition of desertification labelled as the 'child of sustainable development', sharing 'with it the advantages of inclusiveness and the difficulties of finding effective operational definitions in a politicised context' (Johnson et al. 2006: 199).

Crucially, the vagueness surrounding the Convention and its ill-defined scope had also negative effects on the provision of scientific advice to the policy side. Along with various institutional design issues, ineffectiveness in the science-policy interplay within the UNCCD was especially attributed to the inefficiency of the Committee on Science and Technology (CST), the scientific subsidiary body to the Conference of the Parties (COP) (Grainger 2008; Bauer and Stringer 2009; Martello 2004). After lengthy discussions and proposals on how to redress these problems (Thomas et al. 2012; Akhtar-Schuster et al. 2016), recent attempts to revive the provision of scientific advice included the organisation of ad hoc scientific conferences and the establishment of a new platform within the Convention, the Science-Policy Interface (SPI) (Chasek 2019; Kohler 2020).



The Global Soil Partnership (GSP)

Unlike the UNCCD, the Global Soil Partnership (GSP) is not a multilateral environmental agreement (MEA), but an initiative launched in 2011 by the FAO and the European Commission to bring together ‘governments, regional organisations and other stakeholders at various levels’ to implement ‘a voluntary system of global governance’ aimed at supporting and facilitating ‘joint efforts towards sustainable management of soil resources for food security’ (Boer et al. 2017: 56). As a voluntary instrument, the GSP chiefly relies on donor support (mainly from the EU, Germany, the Russian Federation, Switzerland, the Netherlands and, to a lesser degree, Thailand).

The GSP is designed to encompass all dimensions of soil (including soil biodiversity, soil fertility and soil carbon) and is based on five ‘pillars of action’: sustainable management of soil; investment, policy, and awareness in soil; targeted soil research; more and better soil data; harmonisation of methods (Wolff and Kaphengst 2017). It is assisted by a scientific advisory body, the Intergovernmental Technical Panel on Soils (ITPS): composed of 27 members with an expertise on soil science and representing all the regions of the world, this group of scientists can respond to specific requests submitted by other global or regional institutions too (Montanarella et al. 2016). By design, the socio-economic dimension is rather marginal in the merely scientific and soil science-oriented focus of the GSP and ITPS. This is in contrast with the wider land-related themes tackled by the UNCCD, CST and SPI. As shown in the following sections, this aspect is also reflected in the *intergovernmental epistemologies* emerging in the debates of each organisation.

‘Intergovernmental epistemologies’ in soil and land governance

UNCCD: The many voices and epistemologies of a broad policy land(scape)

The intergovernmental discussions held at COP 14 did not only further demonstrate that the scope of the UNCCD is broad to the point of ambiguity, but also showed how this regime displays tendencies to enlarge its domain of epistemic and policy activity even more. Attendance among the Parties was large, with national delegates from each region actively participating in the talks. Handing over the COP presidency to India, China opened the event defining itself a ‘developing country’ and recalling the importance of South-South cooperation.

Discussions during the CST meeting were relevant because they focused especially on the work of the SPI and its increasingly central role in shaping the scientific and epistemic side of the Convention. Differences in the *normative* dimension of *intergovernmental epistemologies* emerged already in these general discussions: while all delegates representing the five UNCCD regions (Africa, Asia, Latin American and the Caribbean, North Mediterranean, Central and Eastern Europe) as well as the European Union (EU) underscored the importance of science for the Convention, attention on participatory implementation and social, cultural and economic aspects were stressed only by the African and Latin American and the Caribbean



representatives. A statement by the EU delegate, emphasising the need to 'seek synergies, avoid duplications and focus on workable rather than theoretical solutions', contributed to shift then then tone towards the *strategic* dimension. This argument, which may be interpreted as an appeal to frugality, was in stark contrast with later comments on the policy-oriented recommendations for the implementation of Land Degradation Neutrality (LDN) proposed by the SPI, with several Global South countries (e.g. Saudi Arabia, Niger, Senegal, Sudan, Syria) lamenting a lack of financial resources and limited capacity to generate and access data. Conversely, from a Global North perspective, Switzerland *normatively* wondered how to address the trade-offs with poverty and biodiversity conservation, highlighting the land tenure and gender aspects.

Throughout the discussions about measures to combat drought, a relatively consistent *normative* dimension dominated the *intergovernmental epistemologies* expressed by Global South countries: while Morocco and India emphasised the relevance of adaptation capacity and practices (especially the traditional ones) as well as local communities' participation, Colombia and Sudan centred their statements on cultural indicators, and local knowledge and practices, respectively. Furthermore, recalling the UNCCD's key focus on Africa, the South African representative asked why a widespread biome in Africa such as savannah was not mentioned in the SPI report. Again, a North-South divide characterised the *strategic* dimension: whereas the representative of the African group recommended that affected countries be facilitated on capacity building to collect and use national data, the United States suggested to 'leverage existing resources and optimise costs instead of coming up with something new' and Switzerland asked that the links with the climate change regime and the IPCC be made more explicit. Finally, displaying a *sovereign-oriented* approach, Venezuela and Bolivia expressed concern about the adoption of indicators 'which are not voluntary' or 'do not take into account national peculiarities'.

Further striking country differences emerged during the comments on the policy-oriented recommendations presented by the SPI regarding its cooperation with other intergovernmental scientific panels and bodies. On the *normative* dimension, donor countries exhibited contrasting *intergovernmental epistemologies*. Switzerland insisted again on the need to highlight the importance of gender and land tenure issues, along with the rights of indigenous people, as well as the challenges of inequality and exclusion. On the other hand, Japan showcased a very different understanding of the UNCCD regime, recalling the importance of 'scientifically sound information'. On the Global South's side, the *strategic* matter of capacity building continued to dominate the speech (Saudi Arabia and Tanzania). The importance and characteristics of the *normative* dimension for the Global South was made clear by the representative of Niger (on behalf of the African group), who stressed that 'local knowledge' and 'youth' should have been given more prominence in the SPI recommendations.

North-South epistemic divergencies along the *normative* and *strategic* dimensions continued during the debates on the agenda items on knowledge management and capacity building. For instance: Japan reiterated that 'avoiding duplication of work to save resources is as important as using information based on objective truth'; Argentina said that 'science should be available to all'; South Africa claimed



that the ‘human and institutional dimensions’ of capacity building were not given sufficient attention.

Diverging *intergovernmental epistemologies* emerged also during the policy dialogues within the ‘Committee of the Whole (COW)’. Even though this assembly is devoid of decision-making power and does not formally address scientific and knowledge matters like the CST, there were rumours that some of the topics debated therein could eventually obtain more attention in the Convention, potentially becoming part of the SPI work programme in the future. One of them pertained to sand and dust storms, a *strategic* issue for many Parties in Central Asia, but whose discussion was resisted by Japan and the EU on the grounds that it ‘is not found anywhere in the Convention’. The Finnish representative (on behalf of the EU) brought the discussion into the *normative* dimension, calling for more action on gender from all sides, including Parties, the SPI, the Secretariat and other UN agencies. The gender dimension was not controversial and many Parties (including India, Switzerland, Argentina and South Africa, on behalf of African group) joined the EU and Finland with statements in support of gender equality. On the contrary, diverging *normative* arguments were made regarding the agenda item on migration, which found again the support of the EU. While Morocco (on behalf of the African group) talked about the problems related to forced rural migration, Argentina suggested that ‘moving to cities is not necessarily bad, and still better than ruining land unsustainably’. Chipping in the debate, China took the opportunity to make a prudent but *sovereign-oriented* statement: ‘the right to development should be preserved, as long as it is green and sustainable’.

The liveliest debate in the COW pertained to the topic of land tenure and the Parties’ uptake of the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT). Notwithstanding the supportive *normative* stances of the EU and Switzerland, this matter was met with reluctance and a *sovereign-oriented* attitude by the overwhelming majority of Global South country representatives. Most of them recommended that the VGGT remain a voluntary mechanism, with the prevailing argument that national peculiarities should be taken into account and respected. Only a few African countries (e.g. Benin, Burkina Faso, Senegal, Kenya) did not explicitly voice this concern, *strategically* preferring to use the forum to highlight the challenges they face on the matter. Brazil, a country historically displaying *sovereign-oriented* positions within the UNCCD regime, was particularly vocal on the subject. It said that ‘it may seem that this topic is only targeted to some countries, but this is a problem also for the most advanced economies, it is a global process’ and it was ‘no reason to replicate the discussion about the VGGT in the context of UNCCD’ or to ‘increase the burden of reporting within the Convention’, as transferring the VGGT to the UNCCD would ‘stray away from the objectives of the Convention’. Along the same lines but more diplomatically, China stated that the ‘item is new and cross-cutting, and we must respect the national specificities and the relevant mandate of the CCD. But we will be constructive in the future on this issue’. Recalling the importance of cultural and political dynamics at national level, South Africa *normatively* stressed the need for ‘sound science to prove the link between land tenure and land degradation’. This speech contrasted with the words of the Bolivian



delegate, who made references to the colonial past, biodiversity and traditional customs. This contributed to reveal significant differences within the Global South in terms of *normative* focus. On the Global North's side, Japan displayed an ambivalent position: while noticing 'a tendency to expand the scope of the Convention' and declaring itself in favour of maintaining the VGGT as a voluntary process, it also supported the idea that such issues be taken up by the SPI and the CST.

The GSP: Strategic concerns and science-oriented voices in a narrow intergovernmental space

The talks held among the FAO member states participating in the 7th session of the GSP Plenary Assembly reflected the soil science-oriented nature of this process, dominated by few actors from the Global North such as the EU, Switzerland and the Russian Federation. As an exception, it is noteworthy to mention the commitment by Thailand: as revealed by many interviewees, this is due to Thailand's former king's interest and involvement in soil science matters.

During the meeting, it was striking to notice the extremely low presence of African delegates in room. This was due to funding issues, something which also led the secretariat to openly admit that 'many GSP projects are somewhat bound by the donors' interests'. Complaining about this low and imbalanced attendance, the delegate from Iceland was vocal in recommending that future meetings be held virtually¹, with a view to limiting carbon footprint too. While this statement was mainly *normative* (the need to be both environmentally friendly and inclusive), it may have had an underlying *strategic* dimension too (making an efficient use of resources).

The *strategic* dimension dominated the speech of donors, leaving little room to other manifestations of *intergovernmental epistemologies*. The Russian Federation, committed to financing the GSP also through a state-owned fertiliser company (PhosAgro), insisted that the Secretariat use all six UN languages and that all the scientific work of the ITPS remain under the aegis of the GSP ('the credibility of the GSP is linked to the ITPS'). The EU offered to support the GSP and the ITPS with the competence in economics of its Joint Research Centre (JRC). Germany made a similar offer, inviting the GSP to collaborate with the Economics of Land Degradation (ELD) Initiative of the German development agency (GIZ). Furthermore, it recommended the secretariat not to duplicate work on sustainable land management and to liaise more with the UNCCD. This recommendation was somewhat echoed by the Portuguese delegate, who questioned the difference between soil and land, wondering why the GSP and the UNCCD do not work more together.

France was also assertive in *strategic* terms, offering to support the GSP with the expertise of its National Institute of Agronomic Research (INRA). However, its *sovereign-oriented* stance was even more prominent. First, it stated that member states should have full control on how national soil partnerships are organised. Subsequently, it resisted a proposal put forward by the secretariat to amend the

¹ This eventually happened in 2020, on the occasion of the 8th session of the GSP Plenary Assembly, as a consequence of the COVID-19 pandemic.



data policy of the Global Soil Laboratory Network (GLOSOLAN), an initiative to enhance cooperation and capacity of soil laboratories worldwide, on the grounds that it would go against French regulations on biodiversity. According to one interviewee, France's attitude vis-à-vis the secretariat was linked not only to the country's long-standing championing of the GSP, but also to its activism in backing a French candidate for the post of FAO Director-General.

China and the United States remained mostly silent, with the former offering to share models for the protection of black soils and the latter urging for 'more tests of fertilisers around the world'. A presentation made by the Canadian delegate about the work conducted within the North America Soil Partnership (NASP) made some room for the *normative* dimension: particular stress was put on epistemic concepts such as economic effectiveness, soil productivity and ecosystem services. Yet, *strategic* elements re-emerged in the slideshow, as one could appreciate the different level of ambition between Canada and the United States, with the former more open and active internationally than the latter (the low engagement of the United States in the GSP was also confirmed by interviews).

Among Global South countries, *strategic* considerations prevailed too. For instance, Uzbekistan invited all GSP partners to a symposium on soil salinity, a dire challenge in the Aral Sea area. Sporadic *normative* elements remained anchored to epistemic questions: commenting on the scientific activities carried by the ITPS, Brazil emphasised the need to work more on the economic aspects of sustainable soil management (SSM).

Tension between diverging *intergovernmental epistemologies* significantly surfaced during the discussion on 'Soilex', a global database including soil-related legal instruments. The EU delegate *normatively* picked up on the matter of land tenure, *strategically* adding that the GSP could take advantage of the 'many FAO initiatives on that', implicitly alluding to the VGGT. This point was firmly opposed by the Iranian delegate who claimed that law 'is always a contextual and cultural issue' that is peculiar to each country and cannot be upscaled. This *sovereign-oriented* speech continued as he strongly urged not to mix land and soil, using both *normative* ('the governance of land does not have anything to do with soil') and *strategic* ('it all becomes complicated and political when you talk about governance') arguments. Many other delegations, including the Russian Federation, expressed concerns about the legal-linguistic challenges associated with this initiative, contributing to strengthen the *sovereign-oriented* trend. India participated in the debate from a largely *normative* perspective, underlying the local and socio-economic relevance of land legislation as well as the religious and cultural dimensions related to this issue.

Together with Iran, which *strategically* asked the GSP to work more in its region and to enhance support for family farming, Egypt was one of the few Southern voices in the room. On the same wavelength as Iran, the Egyptian representative invited to talk about 'soil' rather than 'land degradation' and to focus on 'food productivity rather than food security'. Yet, this did not prevent the delegate to point to land grabbing issues in Africa and to mention the tendency of multinational companies 'to focus too much on biofuels rather than food'. These manifold *normative* statements are an indication of how Global South countries aspire to play a more influential role in a forum largely dominated by the donors' agenda.



Analysis

The above sections unearth the *intergovernmental epistemologies* of UN member states along three dimensions (*normative*, *strategic* and *sovereign-oriented*). Although *intergovernmental epistemologies* may adapt to both the different spirit and history of the two policy settings at hand, they mirror particular preferences of each country. This demonstrates that, in spite of the inevitable thematic overlaps (some member states sent the same delegates to both fora), science and knowledge about soil and land can be indeed understood, framed and addressed in radically different ways. *Intergovernmental epistemologies* become evident when tensions on such knowledge-ways arise, signalling fundamental divergencies across state actors. While such divergencies are already discernible in *strategic* speech, they tend to become more visible in *normative* discussions (the *normative* dimension is constitutive of *intergovernmental epistemologies*, while the *strategic* is accessory, see “[Intergovernmental epistemologies](#)” section). In some cases, when both key *normative* and *strategic* elements are at stake, divergencies create a tangible tension in the meeting rooms, sparking *sovereign-oriented* responses. Overall, *intergovernmental epistemologies* are much more lively and visible in the UNCCD, a forum which allows for broad *normative* discussions. The scenario is quite different in the GSP, where the debate seldom exceeds the *strategic* dimension. This suggests that *intergovernmental epistemologies* are a useful indicator of the level of political contestation of a forum.

The wide range of *normative* perspectives voiced at COP 14 shows that the UNCCD is a vibrant platform in which country delegates are actively engaged in broad scientific and epistemic debates about land degradation issues. In the UNCCD, these normative expressions of *intergovernmental epistemologies* are often tied to particular underlying values and worldviews. On the one hand, this recalls the history and spirit of the Convention, which lent itself to different interpretations (an environmental or a development agreement?) from the very beginning. On the other hand, this should not be understood as a mere reproduction of the North-South divide, as all country parties take advantage of the inclusive UNCCD forum to express their different *normative* perspectives on the multiple land degradation issues dealt with by the Convention. The UNCCD, the Convention of the South (and of Africa especially), allows much room for socio-economically disadvantaged countries to *normatively* and *strategically* voice their concerns about land degradation. In *normative* terms, such inclusiveness is facilitated by the vagueness and broad scope of the UNCCD, which does not only look at soil but at many aspects pertaining to land, making use of ‘boundary objects’ such as LDN (Kohler 2020). Land is a broader concept than soil and the UNCCD displays a full-encompassing approach to it, in a regime that shows evident tendencies to enlarge its scope. Topics such as gender are now more central than ever, while migration and land tenure increasingly animate the debate. Even themes that are not mentioned in the text of the Convention, such as sand and dust storms, are included in the framework of COP discussions. Sometimes, in order to *normatively* legitimise the full uptake of emerging aspects of soil and land degradation in the Convention, country delegates make *strategic* appeals to link them more closely to the scientific activities of the



SPI. But while some *normative* elements appear consolidated (i.e. gender), others are contested. In fact, some enlarging tendencies are resisted with either *strategic* (especially by Global North countries) or *sovereign-oriented* approaches (mostly by Global South countries).

The GSP, a North- and donor-driven initiative besieged by financial constraints, is mainly dominated by technical and organisational debates. Its targeted and science-oriented work caters especially to the particular interests of the partners and member states which fund it. These include countries like Thailand and the Russian Federation, which remained rather silent at UNCCD COP 14². Within the GSP, *intergovernmental epistemologies* operate similarly but through a more controlled script. This is mainly due to the fact that discussions in this forum usually revolve around the narrow scope of soil science: as a result, the normative dimension is much more limited than in the UNCCD. As deliberations tend to be quite homogenous and standardised, countries show a tendency to pragmatically steer the debate towards their *strategic* interests rather than bringing in new themes or epistemic items. However, different *intergovernmental epistemologies* surface more visibly when there is a *normative* attempt to change the script and go beyond a narrow understanding of soil science. Yet, in the GSP, *normative* elements countering the predominantly technical debate are rarely found beyond the weak voices of few Global South countries. Since the GSP provides little room for talks about land and its broader implications, attempts to do so are regarded as unnecessary interferences in the internal political and cultural affairs of each country. This generates strong *sovereign-oriented* manifestations, the most evident dimension of *intergovernmental epistemologies*: Iran's reaction to the question of land tenure provides a good example of this. Yet, the *sovereign-oriented* dimension is not unique to the Global South, as demonstrated by the tensions between France and the secretariat with respect to the amendment to the GLOSOLAN data policy.

In the UNCCD as well, *intergovernmental epistemologies* are used by member states to protect themselves from the harmonisation and standardisation tendencies deriving from the UN system. Here too, the subject of land tenure governance is mainly addressed through the *sovereign-oriented* dimension, as state delegates deploy both strong *normative* and *strategic* arguments in order to resist the uptake of the VGGT into the Convention. Even though most statements do not formally oppose a debate on land tenure issues (with science sometimes rhetorically invoked as a guiding principle), *sovereign-oriented* reasoning prevails in the form of defensive stances, de facto rejecting the idea of enlarging the scope of the Convention in that direction.

In spite of the different historical trajectories and contexts of the two cases at hand, one may also map out some patterns with respect to *intergovernmental epistemologies*. First of all, as corroborated by interviews, land tenure governance remains one of the most controversial and politically contested topics in both fora: a clear object of *sovereign* interests, it is a tangible trait emerging in almost all countries'

² E.g., during the CST meeting, Thailand only took the floor to commend the scientific work carried out by the SPI.



intergovernmental epistemologies. Furthermore, *normative* calls for more attention to local and traditional knowledge as well as *strategic* requests for enhanced capacity building dominate most low-income countries' *intergovernmental epistemologies*. On the other hand, there are rich countries such as the United States and Japan that show diametrically opposing tendencies, evoking science (*normative* dimension) and efficient use of resources (*strategic* dimension). Yet, *normative* appeals to scientific objectivity, evidence-based information and economic assessments often transcend the traditional North-South divide, as shown by Brazil, China, South Africa and the Russian Federation. On a final note, the championing role played by donors like the EU and Switzerland in both the UNCCD and the FAO GSP deserves special attention: adapting to the different historical features of these intergovernmental settings and fully embracing the spirit of both, these actors actively push their policy and epistemic agendas in ways that seem to promote openness and plurality when it comes to approaching and understanding soil and land degradation. In this sense, displaying a proactive alternation of *strategic* and *normative* dimensions, their *intergovernmental epistemologies* are in sharp contrast with the defensive attitude of *sovereign-oriented* speech. As a result, the fluid interactions between member states reveal that *intergovernmental epistemologies* generate discourse coalitions that sometimes (but not always) challenge the "traditional political coalitions or alliances" (Hajer 1995: 66) of UN environmental fora, including the 'North versus South' and 'science versus indigenous and traditional knowledge' cleavages.

As this mixed picture shows, *intergovernmental epistemologies* enable an in-depth analysis of country actors' viewpoints, making it worth listening to delegates' public utterances across different international fora. This analysis also indicates the value of *intergovernmental epistemologies* as an interpretive lens for the study of international environmental governance. By putting member states and their voices centre stage, *intergovernmental epistemologies* emphasise the knowledge tensions of intergovernmental settings as well as the challenge of achieving consensus on global environmental issues. This means that, even though the influence and orchestrating role of institutional structures such as UN secretariats is undeniable (Siebenhüner 2008; Biermann and Siebenhüner 2009), these dynamics should be balanced with all the dimensions embodied in the concept of *intergovernmental epistemologies*.

Discussion and conclusion

Focusing on global knowledge-policy interactions within the domain of soil and land degradation, this paper places country actors and their particular perspectives center stage. The concept of *intergovernmental epistemologies* is introduced to claim that considering member states' cultural understandings and related discourses is important when investigating the makings of knowledge and social order in global environmental governance. The concept is an adaptation of Jasanoff's (2005) notion of *civic epistemologies* and it is deployed to account for different knowledge validation mechanisms across international negotiators. The knowledge-ways tensions detected in this study invite scholars of global environmental governance to pay attention to role of states, especially in their live interactions. If such tensions are too high,



processes such as learning or consensus-based decision-making become seriously challenged.

The comparative analysis conducted here indicates that the level of political contestation between the two fora is different, being significantly higher in the UNCCD. Moreover, it shows how the history and features of two different UN organisations can be traced in the performance of the member states that negotiate within them. One can make sense of the latter through the framing of different *intergovernmental epistemologies* at work. In this sense, the analysis suggests that *intergovernmental epistemologies* are likely to emerge more prominently in an international policy setting that allows for a broad framing of an environmental threat. Yet, *intergovernmental epistemologies* are not necessarily stable nor inextricably linked to the legacy and spirit of each organisation. In fact, certain concepts and ideas, especially when vested with epistemic authority, may clash with the *intergovernmental epistemologies* expressed by most state delegations. Notably, in both fora, debates on topics such as land tenure resulted in positions in defense of national sovereignty, indicating a reluctance to incorporate certain topics into the epistemic and policy agendas. In a similar vein, the analysis indicates that traditional political alignments may coexist with alternative discourse coalitions. This means that, while *intergovernmental epistemologies* in a given forum may be diverging or converging, they would still largely reflect countries' understandings and preferences.

Such national understandings and preferences are captured through the three dimensions in which the notion of *intergovernmental epistemologies* is operationalised (*normative*, *strategic* and *sovereign-oriented*). Even if mainly constituted of *normative* components, *intergovernmental epistemologies* are based on the idea that ideological standpoints and material interests are closely intertwined. As a result, in line with Miller (2001), the distinction between science and policy tend to become blurred during international negotiations, contributing to make intergovernmental environmental fora sites of dynamic political contestation.

As much as science and knowledge may be mobilised to legitimise the inclusion of particular items into the policy agenda, deliberations about science and knowledge are highly impacted by *intergovernmental epistemologies*, which put under scrutiny the proposals brought forward by secretariats, scientific advisory bodies or science-policy platforms like the SPI and the ITPS. Once such proposals obtain a green light, they can legitimately become part of the epistemic 'body' of a regime, recalling a mechanism of coproduction (Jasanoff 2004) in which knowledge and policy are mutually reinforcing.

In these complex and fluid scenarios, *intergovernmental epistemologies* expose the limitations of the linear model of 'speaking truth to power', indicating that science and policy are hardly separable from each other. Abandoning an ontological distinction between science and policy, the concept of *intergovernmental epistemologies* thus offers a 'practice' approach that foregrounds the agency and discourses of member states along the lines of 'multiplicity' and 'performance' (Bueger 2014: 48-50).

In this paper, the domain of soil and land serves as an empirical entry point to the wider arena of global environmental governance, suggesting that *intergovernmental epistemologies* are a helpful conceptual tool to investigate how knowledge



claims are construed and validated in international fora. The lens of *intergovernmental epistemologies* may help unearthing patterns in international institutional mechanisms in which policy, to use Haas's words (2004), keeps science 'on a tight leash'. In fact, while Haas treated the IPCC as an exception to the rule, *intergovernmental epistemologies* may actually override *epistemic communities* more often than not. Therefore, along with Beck et al. (2017), I contend that difficulties in bridging different cultures (including styles of knowledge-making and -validation) within intergovernmental settings pose a serious challenge to arguments about convergence of universal values and norms, such as those underpinning the *epistemic communities* model. This also suggests that recent work applying this model to organisations such as the UNCCD (Chasek 2019) may approach the question of the interplay between science and policy from an overly optimistic and functionalistic perspective. Similarly, following or replicating the UN official discourse about bridging science and policy may be barking up the wrong tree. This is not only due to the fact that this discourse often reflects the logic of the linear model (Beck 2011), but also to the very object of what should be bridged: rather than science and policy, efforts should be directed at connecting cultures and worldviews first. Distances and differences among *intergovernmental epistemologies* could therefore help account for much of the inertia in global environmental governance.

Based on the above considerations, I argue that the conceptual approach proposed in this paper, which builds on the burgeoning body of IR research focusing on the politics of expertise through an STS lens, contributes a novel perspective to the understanding of knowledge-making in international relations: not only does the concept of *intergovernmental epistemologies* issue a further challenge to analytical approaches based on an ontological separation between science and policy such as the 'epistemic communities' model, but it also extends IR analysis of expertise to states' performative practices.

This study has implications for the analysis of intergovernmental negotiations on the environment specifically and global environmental governance generally. It calls for caution about overreliance on analytical approaches based on learning and all-encompassing discourses. Even if the growing influence of non-state actors within the UN system is beyond doubt, one should not neglect or overly downplay the role of states, including their cultural understandings and particular discourses: this can be captured through the concept of *intergovernmental epistemologies*, which reminds that international organisations and intergovernmental settings are still politicised sites of contestation. These implications have also a heuristic and methodological dimension: instead of focusing on mainstream macro-discourses shaped and shared by all actors, the *intergovernmental epistemologies* approach proposes to gain insights directly from onstage interactions between country delegates, detecting moments of tension and disagreements that are not easily retrievable in official documents. This enables fine-grained analyses that do justice to the complexity of intergovernmental dynamics and have the potential to assess countries' adherence to (or deviation from) mainstream and unifying discourses. The analytical richness gained by thinking in terms of *intergovernmental epistemologies* shows the value of adopting concepts derived from the STS tradition to investigate the knowledge-policy dynamics of global environmental governance. While this paper has introduced the



notion of *intergovernmental epistemologies* in close connection with UN environmental negotiations, future research may consider applying this conceptual framework to other intergovernmental settings, both within and beyond the UN context.

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