

# Global climate adaptation governance: Why is it not legally binding?

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**Nina Hall**

Johns Hopkins School of Advanced International Studies (Europe), Italy

**Åsa Persson**

Stockholm Environment Institute, Sweden

## Abstract

In the last decade, the United Nations Framework Convention on Climate Change has moved from a strong focus on mitigation to increasingly address adaptation. Climate change is no longer simply about reducing emissions, but also about enabling countries to deal with its impacts. Yet, most studies of the climate regime have focused on the evolution of mitigation governance and overlooked the increasing number of adaptation-related decisions and initiatives. In this article, we identify the body of rules and commitments on adaptation and suggest that there are more attempts to govern adaptation than many mitigation-focused accounts of the international climate regime would suggest. We then ask: to what degree are adaptation rules and commitments legalized in the United Nations Framework Convention on Climate Change? We examine the degree of *precision* and *obligation* of relevant decisions through an extensive analysis of primary United Nations Framework Convention on Climate Change documents, secondary literature on adaptation initiatives and institutions, interviews with climate change experts and negotiators, and participant observation at climate negotiations. Our analysis finds that adaptation governance is low in precision and obligation. We suggest that this is partly because adaptation is a contested global public good and because 'package deals' are made with mitigation commitments. This article makes a vital contribution to the global environmental politics literature given that adaptation governance is under-studied and poorly understood. It also contributes to

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## Corresponding author:

Nina Hall, Johns Hopkins University School of Advanced International Studies, Bologna Center, Via Belmeloro, 11, Bologna, 40126, Italy.

Email: [nhall@jhu.edu](mailto:nhall@jhu.edu)

the legalization literature by highlighting how contested global public goods may be governed globally, but with low obligation and precision.

### Keywords

Adaptation, climate change, global governance, global public good, legalization

## Introduction

In Paris in December 2015, states established a new ‘global goal on adaptation’ at the United Nations Framework Convention on Climate Change (UNFCCC). This goal has been cited as one of the positive elements of the Paris Agreement, alongside the breakthroughs on mitigation that have tended to dominate post-Paris analysis. In fact, since the early 2000s, the issue of adaptation has become a significant part of international climate politics (Biermann, 2014; Ciplet et al., 2015; Khan and Roberts, 2013; Schipper, 2006; Verheyen, 2002). In a cumulative fashion, states have established many adaptation rules and commitments under the UNFCCC. These range from knowledge-sharing frameworks and guidelines (e.g. the Nairobi Work Programme on Adaptation) through to the establishment of new institutions funding adaptation (e.g. the Adaptation Fund). Yet, the legal force of these adaptation initiatives is not entirely clear. The aim of this article is to analyse and explain the nature of global adaptation governance as conducted under the UNFCCC, and specifically the degree of legalization (Abbott and Snidal, 2000; Abbott et al., 2000; Kahler, 2000).

Apart from constituting an under-studied area of international cooperation, global adaptation governance is an interesting puzzle for International Relations (IR) scholars interested in legalization. This is because both the ‘global’ and ‘public’ nature of adaptation is widely contested. Many scholars and states would argue that adaptation is a local and private good in that adaptation measures would provide benefits mainly at a local level and are seldom purely public. We should thus not expect to see a high degree of legalization as states have little incentive to regulate such an issue at the international level. Accordingly, there is no substantive governance, and existing adaptation-related provisions are mainly ‘for optics’. Meanwhile, some scholars (Khan, 2013; Magnan and Ribera, 2016) have suggested that adaptation should be considered a global public good that is underprovided and needs international cooperation. The effects of climate change spill over borders and could lead to the displacement of peoples or to new global public health challenges, and the international community must cooperate to address these. These views rest on divergent framings of adaptation, which are reflected in the UNFCCC negotiations. We suggest that adaptation is a *contested global public good*, and this is one explanation for why there are global adaptation rules and commitments that are low in obligation and precision. This is an important contribution as the legalization literature has generally ignored how states construct and contest global public goods.

This article examines the rules and commitments related to adaptation governance under the UNFCCC, and their degree of legalization. It is based on extensive analysis of UNFCCC primary documents and submissions, as well as secondary literature on climate governance initiatives and institutions. We examined the legal texts of UNFCCC

agreements and, drawing on secondary literature, identified the key rules and commitments. We conducted interviews with climate adaptation experts and negotiators. Candidates were selected for their expertise on adaptation and to reflect a range of views (developed and developing country) and positions (government officials and external experts); however, we acknowledge that they are not fully representative of all views.<sup>1</sup> In addition, the authors have conducted participant observation at several climate negotiations and other relevant meetings over the past decade, including: the UNFCCC Conference of the Parties (COP) meetings in Bali, Poznan, Copenhagen and Paris; an Adaptation Fund Board meeting; and an Adaptation Committee meeting.<sup>2</sup> This participant observation helped identify key actors, rules and commitments, and contextualize the development of global adaptation governance. For the purposes of this article, we focus on the UNFCCC as it is the core global institution governing adaptation. It is beyond the scope of this article to list the many other actors involved in global adaptation governance.<sup>3</sup> Our aim is to identify hypotheses to explain the low level of legalization of adaptation in the UNFCCC.

The first section of this article describes the knowledge gap on global adaptation governance. The second section then outlines how we can measure and explain the degree of legalization. The third section identifies the key rules and commitments established on adaptation in the UNFCCC, and then, in the fourth section, we consider explanations for the variation in the legalization of adaptation, before concluding. Our central call is that we should think more critically about what adaptation governance really is given the high costs of adaptation (estimates range from US\$19 billion to US\$429 billion annually by 2050 for developing countries), as well as the explosion of adaptation initiatives and institutions (Watkins et al., 2014). We need to ensure that international adaptation cooperation is well-informed and governments are held to account.

## **Global adaptation governance**

The legal nature of obligations governing climate change in the UNFCCC has been extensively analysed. However, this literature typically focuses on mitigation-related elements and pays limited attention to adaptation (see, e.g., Bodansky, 2016; Byrnes and Lawrence, 2015; Keohane and Oppenheimer, 2016; Oberthür and Bodle, 2016; Okereke and Coventry, 2016; Rajamani, 2016). A similar tendency to focus on mitigation can be observed in the literature on global climate governance, beyond the UNFCCC, which has identified climate change as a regime complex (Keohane and Victor, 2011), as transnational governance (Andonova et al., 2009; Bulkeley et al., 2014; Dzebo and Stripple, 2015) and/or as polycentric governance (Jordan et al., 2015). There is thus a significant knowledge gap on the nature of global adaptation governance, which this article addresses.<sup>4</sup>

To the extent that global adaptation governance has been studied, few accounts have focused on its legal nature (Verheyen, 2002) or governance functions (Lesnikowski et al., 2016). Different strands of literature on adaptation governance provide insights but not the complete picture. First, at the international level, the conceptual and discursive history of adaptation throughout the negotiations, including links to the Intergovernmental Panel on Climate Change (IPCC) reports, has been recorded, with the finding that it is

characterized by persistent ambiguity (Schipper, 2006). Second, there is a large literature focusing on the politics of international climate adaptation finance (Ciplet et al., 2013; Grasso, 2010; Hall, 2017; Khan and Roberts, 2013; Mace, 2005; Paavola and Adger, 2006; Persson and Remling, 2014). Providing and allocating financial transfers is an important mode of international adaptation governance but there is a more comprehensive regime at play. Finally, there is a large and diverse literature examining adaptation governance that focuses on local or national levels of governance, and associated modes and actors (see, e.g., Adger et al., 2005; Adger, 2001; Bisaro and Hinkel, 2016; IPCC, 2014; Javeline, 2014). This reflects the scaling of adaptation as an individual, local or, at most, national concern, yielding mainly private, local or national-level benefits, something we will return to later.

It is timely post-Paris to take stock of the global adaptation governance architecture, considering the lack of scholarship on this topic. Biermann and Boas (2010: 223) have called for more political science research on ‘global adaptation governance’ given that it ‘will affect most areas of world politics’. Normative demands have also been made for more robust governance. Khan (2013) calls for stronger and more centralized and binding agreements on adaptation within the UNFCCC regime, both to strengthen equity and the polluter-pays principle, and to challenge the framing of adaptation as a local concern. In a similar vein, Magnan and Ribera (2016: 1281) argue that the new global adaptation goal ‘represents great progress’ and ‘[b]eyond simply providing funds ... there is a need for enhancing a global sense of responsibility on the shaping of adaptation’. Meanwhile, others frame adaptation as ‘climate-resilient development’, and have identified how development institutions are expanding into adaptation activities (Hall, 2016; Persson and Klein, 2009).

Although some scholars make strong normative calls for a change in global adaptation governance, it is not clear what sort of adaptation governance currently exists. In particular, how strongly binding (‘legalized’) are existing commitments related to adaptation? This is a question often asked of mitigation governance (Brunnée and Toope, 2010; Falkner, 2016; Rajamani, 2016), but not of adaptation.

## Theorizing legalization in global governance

States can choose between multiple forms and types of action at the global level. They may opt for: competition, unilateral action, no action or collaboration (Milner, 1992). A significant body of IR scholarship has sought to explain under what conditions states opt for cooperation (Keohane, 1984). A common assumption is that states are more likely to opt for international cooperation to address global public goods — rather than local or national goods for which there is little incentive for one state to provide for another. A global public good is non-rivalrous in consumption and has non-excludable benefits, and these two properties ‘extend to all countries, people and generations’ (Kaul, 2003: 95).<sup>5</sup> Climate change mitigation is an example of a global public good as all states are affected and no one state can resolve it alone (Barrett, 2007). Following this logic, one of the key structural determinants for international cooperation is commonly seen as the ‘level of joint gains’ (Keohane and Victor, 2016).

Yet, even when states reach an international agreement, there is variation in the extent and nature of cooperation that they commit to. Scholars working in the rationalist tradition have highlighted variation in the *legalization* of international cooperation — states may opt for hard law (a legally binding international treaty) or they may choose various forms of soft law (norms, recommendations, guidelines) (Goldstein et al., 2000).<sup>6</sup> Legalization is defined by three dimensions: *obligation*, when ‘states or other actors are [legally] bound by a rule or commitment or by a set of rules or commitments’ (Goldstein et al., 2000: 401); *precision*, when ‘rules unambiguously define the conduct they require, authorize or proscribe’; and, finally, *delegation*, whereby states delegate to third parties such as courts, arbitrators and international organizations to implement, interpret, monitor compliance and resolve disputes (Abbott and Snidal, 2000: 415). Legalization varies along all these three dimensions: when all three dimensions are high, then there is ‘high legalization’ (hard law), and when all three are low, there is ‘low legalization’ (soft law), with multiple variations in between these two extremes.

The concept of legalization has been used for analysing regimes such as human rights and investment (Guzman, 2008: 157; Lutz and Sikkink, 2000). However, constructivist scholars have argued that the concepts of obligation, precision and delegation are narrow (Finnemore and Toope, 2001; Hafner-Burton et al., 2012) and have questioned whether these three dimensions are the most important. They have noted that many areas of functioning international law, including international environmental law, do not rely on delegation (Finnemore and Toope, 2001: 747), but function on the basis of ‘information-sharing and voluntary compliance’, and create mechanisms to ‘promote compliance through positive reinforcement of obligations rather than on adjudication and sanctions for non-compliance’ (Finnemore and Toope, 2001: 747).

In addition, scholars have questioned whether the legalization literature has a theory of obligation.<sup>7</sup> Why do states consider legal rules binding (Finnemore and Toope, 2001: 748)? Is it a ‘choice’ by utility-maximizing actors (Finnemore and Toope, 2001: 748) and/or because states attach legitimacy to the international legal system (Reus-Smit, 2011: 341)? Constructivist scholars have explored how law operates and emphasized that it is a set of processes and relationships — a high degree of obligation, precision and delegation can exist with no law as legal norms arise in the context of shared understandings within society (Brunnée and Toope, 2011: 352).

Although there are clear limitations of the legalization literature, we find it a useful analytical framework to examine the extent and type of commitments within existing formalized agreements. The concerns of constructivists to examine exactly how obligation takes effect are valid but we do not currently know what type of legal adaptation obligations states have committed to. Thus, we take a slightly novel approach and use legalization to examine one issue within a wider set of agreements, the UNFCCC and associated protocols, agreements and decisions.

So, how can legalization be operationalized and variation identified? Abbott et al. (2000: 408) argue that *legal obligation* is distinct from obligations resulting from ‘coercion, comity, or moral value alone’. When we have high legalization, rules and commitments are regarded as binding, and states cannot disregard them even if their preferences change (Abbott et al., 2000: 409). There are variations from high obligation (a binding

rule and unconditional obligation) to low (norms, recommendations or guidelines adopted without law-making authority), and also the possibility of explicit negation of intent to be legally bound. Establishing legal obligation depends on a particular type of legal discourse (Abbott and Snidal, 2000: 409); in international law the use of 'shall', for instance, binds Parties to an international agreement. Obligation is the most commonly studied element of legalization, especially in the UNFCCC, and is necessary for high legalization.

*Precision* is an equally important element of legalization. There is low precision when rules and commitments are 'too vague to be applied to specific facts' (Kaufmann-Kohler, 2010: 2) and instead outline general goals or principles. If rules are ambiguous, then states can interpret them to their advantage (Best, 2012; Hall, 2016). This is problematic as states can sign up to a highly binding agreement but then effectively redefine their obligations to avoid making major concessions. Precision varies from highly determinate rules, where there are narrow issues of interpretation, to rules where there are extremely broad areas of discretion (Abbott and Snidal, 2000: 412–413). There is no precision when it is impossible to determine whether conduct complies.

Regarding delegation, we find that it is not a useful dimension of legalization in global climate governance as the UNFCCC has not frequently used adjudicatory mechanisms.<sup>8</sup> Hence, we do not include this dimension in our analysis. We focus on obligation and precision to determine the legalization of global adaptation governance.

## **Explaining variation in legalization**

Scholars have identified several explanations for why states choose hard law over soft law. The three dominant explanations focus on functionalism (states select based on a trade-off between costs and benefits), power asymmetries (or distribution of states preferences) and domestic preferences (Abbott and Snidal, 2000; Guzman, 2008; Hafner-Burton et al., 2012). The underlying assumption is that states enter agreements when it makes them better off, and use international law to extract and lock in commitments from other states (Guzman, 2008). They seek to influence the degree of legalization in that process. Here, we examine the first two explanations since data collection on the domestic preferences of all Parties was beyond the scope of this research. We then suggest that the extent to which an issue of international cooperation is an accepted or contested 'global public good' is a critical, and overlooked, factor in explaining legalization. In addition, we suggest that legalization may be used as a side-payment for another issue within a regime. We suggest that these explanations are not mutually exclusive, and could be complementary.

### *Trade-offs between strong commitments, flexibility and sovereignty*

From a functionalist perspective, states will select high legalization if the benefits outweigh the costs and will opt for low legalization when they do not (Abbott and Snidal, 2000; Guzman, 2008: 144). There are a number of benefits of high legalization, which includes setting strong and credible commitments that states cannot opt out of easily as

they risk a loss of reputation and retaliation from other states (Guzman, 2008). Furthermore, when agreements are precise, states cannot (mis)interpret them to their own advantage. High legalization also strengthens compliance and lowers transaction costs. However, high legalization comes with costs to sovereignty — states are unwilling to accept international authority in areas of high national importance, such as security or migration policies, as they lose control over regulation (Abbott and Snidal, 2000; Kahler, 2000: 644). Further, states often opt for less binding commitments because they value flexibility to deal with changing circumstances, and high legalization makes future changes in policy more costly (Guzman, 2008: 136). In a similar vein, Kratochwil (2014: 101, 111) notes the increasing tendency of states to generate soft law as it allows states to shorten negotiation time, retain control of implementation and mitigate domestic dissent. In short, there is a constant trade-off between making strong, precise, credible commitments and having discretion to deal with future uncertainty and limit sovereignty costs.

There are various forms of uncertainty — there can be uncertainty over the credibility of states' promises, uncertainty over the state of the world (Will exogenous shocks change prospects for cooperation?) and uncertainty over how preferences will evolve. Abbott and Snidal (2000: 444) propose that when uncertainty is high, and sovereignty costs are low, 'states will be willing to accept binding obligations and at least moderate delegation but will resist precise rules'. Meanwhile, others have argued that there are general and particularistic (affecting some states more than others) uncertainties, which result in diverse forms of flexibility (Thompson, 2010).

In summary, there are many potential ways that obligation, precision, uncertainty, flexibility and sovereignty costs could interact. The scholarship has not yet found a firm response to key relationships; from the literature, we derive the following:

Proposition 1: High uncertainty and low sovereignty costs lead to low precision and high obligation.

### *Asymmetries in power and preferences*

The distribution of preferences among states over an issue and the ease of reaching an agreement is another critical dimension (Hafner-Burton et al., 2012). When state preferences are highly asymmetric, we are less likely to have an international agreement with high precision and obligation (Kahler, 2000: 665). These issues will also be influenced by the number of Parties to an agreement and the preferences for legalization of the most powerful states (Kahler, 2000: 666). High legalization occurs if the most powerful state(s) is in favour of it. The distribution of state preferences has been an important factor in climate mitigation negotiations as high asymmetries have led to gridlock in negotiations (i.e. the 2009 Copenhagen negotiations). Also within this explanatory approach, we derive two hypotheses:

Proposition 2: The greater the asymmetry of preferences between states, the less likely we are to see high legalization.

Proposition 3: When the hegemon(s) supports strong legalization, we are more likely to see high precision and obligation.

### *Contested global public goods*

In functionalist explanations, the object of legalization is taken for granted and legalization is presented as a selection and optimization problem. Yet, many scholars have highlighted the *political* nature of defining global public goods (Augenstein, 2016: 231; Bodansky, 2012; Carbone, 2007; Kaul, 2003), including global environmental problems. Although economists would point to objectively verifiable criteria of non-rivalry and non-excludability, many goods are ‘impure’ and neither clearly private nor public (or local or global). Rather, states must determine what is ‘global’ and what is a ‘public’ good, and this is inherently a *political* decision (see also Allan, 2017).<sup>9</sup> Leading scholars of global public goods have acknowledged that “‘public’ and ‘private’ are in many cases a matter of policy choice: a social construct’ (Kaul, 2003: 104).

Furthermore, economists have also noted that some goods are ‘joint products’ as they yield multiple outputs that may vary in their degree of publicness (Arce and Sandler, 2002). For instance, joint goods — like peacekeeping, foreign assistance and perhaps adaptation — provide a specific private benefit for a nation (or community) and a global public benefit (Kaul et al., 1999: 27).<sup>10</sup> Thus, goods can have both public and private benefits simultaneously. What this classification misses is how states, and other key stakeholders, construct and classify goods as public and/or private.

We suggest that the legalization scholarship should examine political contestation over what constitutes a global public good. The extent to which a global public good is widely accepted by states as a global public good will impact on its legalization. Being a global public good is an important precursor to (international) legalization — a necessary but not sufficient condition (Allan, 2017). If there is no *global* dimension to a good, then it is unlikely that we will see any international legalization (and potentially no global discussion at all). In cases where there is contestation over whether an issue has global public good properties, we may see some international discussions but are unlikely to see high obligation and precision. After all, states are unlikely to commit to take action on something that is widely perceived to be a local and/or private good. Further, it must be states within the negotiation that are contesting a global public good — if it is only civil society, academics or other interest groups that have contesting views, this is unlikely to translate into variation in obligation and precision in international agreements. Notably, states’ views often diverge (and evolve over time) on whether an issue is a global public good (Carbone, 2007):

Proposition 4: A contested global public good will lead to agreements with low levels of obligation and precision.

### *Package deals and side-payments*

Legalization scholars have noted that states may trade off different dimensions of an agreement (form and substance; precision and obligation) (Abbott and Snidal, 2000;



Guzman, 2008). Thus, the level of precision may be compromised to have higher obligation, or vice versa. States may also increase the *breadth* of an agreement to induce other recalcitrant states to agree, that is, expand from the core problem addressed. This enables states to make concessions in one area to enable agreement on the core issue(s) around substance and form, obligation and precision (Guzman, 2008: 165). Flexibility becomes especially important when one particular problem (or uncertainty) threatens to upset a larger ‘package deal’. Rather than hold up the overall agreement, states can incorporate imprecise provisions to deal with the difficult issues, allowing them to proceed with the rest of the bargain (Abbott and Snidal, 2000: 445). As Abbott and Snidal (2000) explain, ‘states can design different elements of an agreement with different combinations of hardness’ in order to fine-tune trade-offs related to flexibility, uncertainty, cost and so on (see earlier).

Here, we extend this explanation by connecting it with the idea of side-payments for providing global public goods (see, e.g., Anand, 2004; Barrett, 2001). We suggest that these concessions can be either institutional (as suggested earlier) or material (such as cash transfers) (Ciplet, 2015: 265). In this article, we limit material side-payments to those regulated within the agreement, and not those potentially taking place (informally) outside of the agreement.<sup>11</sup> Note that there is no clear-cut answer on whether side-payments enable or inhibit legalization per se:

Proposition 5: Low or high legalization can act as a form of side-payment in a negotiation for the provision of another global public good (in a single regime).

## Legalization of adaptation under the UNFCCC

We now look at existing adaptation rules and commitments adopted through the Convention, agreements, protocols and decisions and examine their degree of obligation and precision. Four categories are used to cluster them, reflecting different functions of the adaptation regime, and one of these (individual commitments) is further subdivided into three subcategories (see Table 1). Our assessment of obligation draws on the legal terminology used in the UNFCCC, where ‘shall’ signifies binding obligations on Parties, ‘should’ an advised action for Parties and other terms (e.g. ‘may’) even more discretionary actions (Rajamani, 2016). We use rules and commitments regulating mitigation as illustrative examples for comparison.

We make two overall observations. First, the collection of rules and commitments on adaptation has gradually accumulated, and there are arguably more (in nominal terms) attempts to govern adaptation than many mitigation-focused accounts of the international climate regime would suggest. Second, adaptation is characterized by low legalization, especially when it comes to the precision dimension.

### *Collective commitment*

Adaptation was not on par with mitigation at the outset of the climate regime. Mitigation was identified as the objective (Article 2) of the 1992 Convention: ‘stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous

**Table 1.** Assessment of the legalization of adaptation governance under the UNFCCC.

Rules and commitments	Potential governing function	Key provisions, decisions, institutions and initiatives under the UNFCCC	Assessment of obligation and precision
Collective commitment to advance adaptation	Provides a legal basis and imperative for states to adopt adaptation policies; agenda-setting and awareness-raising.	<ul style="list-style-type: none"> <li>– Not an explicit objective under the UNFCCC.</li> <li>– Bali Action Plan (2007) and Cancun Adaptation Framework (2010) raised profile.</li> <li>– Paris Agreement established the global goal on adaptation (Art. 7.1).</li> </ul>	Obligation has increased from very low to low with the Paris Agreement global goal. Precision is very low due to missing definition of adaptation and associated metrics.
Individual commitments			
– Substantive national adaptation commitments and targets	Demands national policy and action, and delivers adaptation on the ground if implemented domestically; enables monitoring and review at international level; enables domestic stakeholders to hold their governments to account.	<ul style="list-style-type: none"> <li>– UNFCCC Art. 4.1(b) parties 'shall ... formulate and implement ... measures to facilitate adequate adaptation to climate change'.</li> <li>– No guidelines adopted or pledges invited.</li> <li>– Paris Agreement (Art. 7.9) states that 'Each Party shall, as appropriate ... engage in ... the implementation of adaptation actions'.</li> </ul>	Obligation has been consistently low. Precision is very low due to the lack of definition of adaptation actions, metrics and criteria to determine compliance.
– Commitments to plan and report	Plans facilitate national policy and action, including by informing budgeting; reporting requirements incentivize taking action; structure and format requirements on plans and reports can shape the design of policy and action; enables domestic stakeholders to hold their governments to account.	<ul style="list-style-type: none"> <li>– National communications.</li> <li>– NAPAs (voluntary; LDCs only).</li> <li>– NAPs (voluntary; developing countries only).</li> <li>– INDCs and undertakings in adaptation planning (voluntary).</li> <li>– Adaptation communications.</li> <li>– Global stock-take.</li> </ul>	Obligation has been constant but the number of planning/reporting modalities with a specific focus on adaptation has increased. Precision has increased when it comes to suggested scope and contents of the voluntary types of plans, but low for compulsory and universal plans.

**Table 1.** (Continued)

Rules and commitments	Potential governing function	Key provisions, decisions, institutions and initiatives under the UNFCCC	Assessment of obligation and precision
<p>– Commitments to provide finance</p>	<p>Enables national policy and action in recipient countries.</p>	<ul style="list-style-type: none"> <li>– Article 4.4 and Art. 11.5 allowing ODA (UNFCCC).</li> <li>– Copenhagen Accord (2009).</li> <li>– Paris Agreement (Art. 9) and Decision (2015).</li> </ul>	<p>Obligation has been moderate and stable. Precision has increased from virtually non-existing, but still low (e.g. target level for adaptation, baselines, funding sources).</p>
<p>Access to and allocation of multilateral finance</p>	<p>Regulates what kind of adaptation policy and action is enabled and encouraged.</p>	<ul style="list-style-type: none"> <li>– KP and decisions establishing LDCF, SCCF, AF and GCF.</li> <li>– Strategic and operational guidelines of the above funds.</li> <li>– Paris Agreement (Art. 9) and Decision (2015).</li> </ul>	<p>Obligation is high in the sense that COP guidelines are binding for the funds' boards and trustees, and hence applicants for funds.</p>
<p>Sharing of best practice</p>	<p>Facilitates national policy and action, and delivery of adaptation on the ground; sets informal norms on what constitutes good adaptation; awareness-raising; connects actors and builds coalitions.</p>	<ul style="list-style-type: none"> <li>– Nairobi Work Programme.</li> <li>– Adaptation Committee.</li> <li>– Adaptation Exchange.</li> <li>– 14 databases.</li> <li>– Over 40 publications.</li> </ul>	<p>Precision is low to moderate in the sense of scant definitions of eligible/prioritized adaptation activities and no definition of 'level of vulnerability' as an allocation criterion.</p> <p>Obligation is formally non-existent as these modalities are voluntary, but they may produce informal norms.</p> <p>Precision has gradually increased with the evolution of best practice.</p>

NAPAs: National Adaptation Programmes of Action; NAPs: National Adaptation Programmes; LDCs: Least Developed Countries; INDCs: Intended Nationally Determined Contributions; KP: Kyoto Protocol; ODA: Official Development Assistance; LDCF: Least Developed Countries Fund; SCCF: Special Climate Change Fund; AF: Adaptation Fund; GCF: Green Climate Fund; and COP: Conference of the Parties.

anthropogenic interference with the climate system'. It was specified that '[s]uch a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change'. Adaptation was mentioned, but there were no corresponding responsibilities or commitments for states. Mitigation was characterized by a clear obligation for the Parties (Article 3.2(c)), and increasingly so with the Kyoto Protocol in 1997. Mitigation was also characterized by increasing precision as the objective became quantified and made measurable with the 2-degree target, formally adopted in the 2010 Cancun Agreements<sup>12</sup> and reconfirmed in the 2015 Paris Agreement (which strengthened the obligation by committing Parties to pursue efforts towards 1.5-degree warming only).<sup>13</sup>

Collective commitments on adaptation were characterized by low obligation and precision from the outset, despite some early calls for establishing a separate protocol on adaptation (Verheyen, 2002). Charting the path towards a new global deal, the 2007 Bali Action Plan stated that a future agreement should address 'enhanced action on adaptation' as one of four pillars.<sup>14</sup> This statement of intent meant a clearer rationale for concerted action and, as a result, expanded governance activities. The 2010 Cancun Adaptation Framework stated that '[a]daptation must be addressed with the same priority as mitigation and requires appropriate institutional arrangements to enhance adaptation action and support' and invited all Parties to 'planning, prioritizing and implementing adaptation action'.<sup>15</sup>

In the negotiations leading up to the Paris Agreement, the African Group of Negotiators introduced the idea of a global goal on adaptation and other Parties joined in. Suggestions ranged from a goal quantified by some relevant indicators (e.g. reduction of settlements at risk, reduction of economic losses), to a goal focused on the provision of adaptation finance and a qualitative goal.<sup>16</sup> African states, led by South Africa, pushed for a quantifiable goal and proposed a formula on adaptation that would lead to clear financing targets for developing states.<sup>17</sup> However, many other developing and developed countries did not want such a precise, quantifiable goal on adaptation.<sup>18</sup> Developing countries were concerned at how vulnerabilities and needs would be fixed, and some thought that a universal equation to determine 'how much money you're going to get' was not feasible and would mean that some would 'lose out'.<sup>19</sup> The Alliance of Small Island States (AOSIS) wanted a 'clear understanding on the commitment of \$100 million per annum by 2020, to ensure developed countries were fully committed to supporting the adaptation efforts of developing countries, which is an extremely important component of the agreement'.<sup>20</sup> Meanwhile, some Pacific Island States viewed a quantifiable global adaptation target as 'too generic or intangible', and prioritized a package of support for adaptation — technical and financial support, and recognition of the special case of the Small Island Development States (SIDSs).<sup>21</sup> In the end, a broad qualitative goal with low precision and obligation was agreed (Article 7.1):

Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2.

Progress towards the global goal will be reviewed for the global stocktakes under the Paris Agreement, starting in 2023 (Article 7.14).

As a collective commitment, the goal is characterized by a low degree of obligation, and does not impose any clear responsibilities ('shall') on states to achieve it. Precision is very low, currently, given that there are no official definitions of adaptation, adaptive capacity, resilience or vulnerability under the UNFCCC. Further, no metrics have yet been agreed, in contrast with mitigation, where states use a unit of carbon dioxide (CO<sub>2</sub>) to measure efforts.<sup>22</sup> The scientific community has been sceptical so far of the feasibility of accurately measuring adaptive capacity, resilience and vulnerability through quantitative indicators since these are often localized and context-dependent phenomena that are intimately linked to values (Hinkel, 2011; Klein, 2009). On the post-Paris agenda, however, the UNFCCC Adaptation Committee, Least Developed Countries (LDC) Expert Group and Standing Committee on Finance have several tasks that directly relate to explicitly or implicitly interpreting the goal (e.g. reviewing the 'adequacy and effectiveness of adaptation').<sup>23</sup> Civil society and stakeholders have proposed to increase precision when moving forward, also pointing out that some indicators and metrics have already been reported by Parties in their 2015 Intended Nationally Determined Contributions (INDCs) (ActionAid et al., 2016; Craft and Fisher, 2016; Ngwadla and El-Bakri, 2016).

### *Individual commitments*

*Substantive commitments.* Subdividing a collective commitment into national commitments or targets that constrain a state's behaviour — such as a national greenhouse gas emission reduction target — would constitute high legalization. Regarding mitigation, binding commitments that 'added up' to a certain collective commitment were long strived for (and somewhat achieved in the Kyoto Protocol), but with the Paris Agreement, a 'bottom-up' process of pledging targets and efforts in Nationally Determined Contributions (NDCs) was introduced, although to be subject to detailed transparency and review frameworks.

Regarding adaptation, substantive commitments could potentially have a highly constraining effect in terms of the reallocation of public expenditure (e.g. retrofit all public infrastructure to withstand a 2-degree global warming; compensate all landowners vulnerable to coastal erosion). However, no such commitments with high obligation or precision have been agreed under the UNFCCC. Article 4.1(b) of the Convention states that Parties 'shall ... formulate and implement ... measures to facilitate adequate adaptation to climate change'. However, 'facilitate' is a weak obligation to ensure a certain outcome, and 'adequate' is imprecise without further criteria. The Paris Agreement (Article 7.9) states that '[E]ach Party shall, as appropriate ... engage in ... the implementation of adaptation actions', which arguably weakens the degree of obligation with the 'as appropriate' reservation. Regarding precision, the same barriers in measuring adaptation at the collective level applies to individual commitments. Two trends can be discerned, though. First, over time, there appear to be more references to the 'implementation' of adaptation, as opposed to 'planning', which could arguably be seen as a gradual increase in obligation in that the latter presumably requires the allocation of more resources (e.g. funding for infrastructure retrofitting) than the former (e.g. preparation of a document). Second, some Parties have called for individual commitments on adaptation, but in the form of reporting plans for adaptation in NDCs (AILAC et al., 2014).

*Planning and reporting commitments.* In contrast, these are more frequent. The obligation to report on adaptation planning was there from the outset, through the National Communications (NCs) (Article 12.1 of the Convention). Since then, new types of voluntary plans have been developed, for developing-country parties specifically, and connected with dedicated multilateral funding. These include the National Adaptation Programmes of Action (NAPAs),<sup>24</sup> introduced in 2001, and the National Adaptation Plans (NAPs),<sup>25</sup> introduced in 2010. The Paris Agreement increased the level of activity around planning and reporting. In the lead-up, Parties were invited to submit ‘Undertakings in adaptation’ and/or include planned adaptation measures in their INDCs.<sup>26</sup> Under the Paris Agreement, it was agreed that ‘[e]ach Party should, as appropriate, submit and update periodically an adaptation communication, which may include its priorities, implementation and support needs, plans and actions’ (Article 7.10), and this could be submitted as a component of a NAP, NC or NDC. These adaptation communications shall be considered for the global stocktakes (Article 13.8), and the Adaptation Committee and LDC Expert Group will develop the methodology.<sup>27</sup>

While technical guidance has gradually become more precise and elaborate, the rules have not increased significantly either obligation or precision in what to plan or report, or why. All plans but the NCs are forward-looking and about planning rather than implemented actions, so the logic is not reporting, or reviewing implementation progress to hold Parties accountable. The argument that adaptation is essentially a local issue was made explicit in the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) negotiations, where the EU and AOSIS were of the view that adaptation did not need to be addressed as part of the INDCs (Edwards et al., 2017).

*Financial support commitments.* To enable the delivery of adaptation in poor and vulnerable countries, commitments to provide financial support have been continuously negotiated. A ‘shall’ commitment — covering both mitigation and adaptation — was stated for Annex II countries already in the Convention (Articles 4.3 and 4.4), and this degree of obligation remained with the Paris Agreement.<sup>28</sup> However, the debate on the level of financial support needed and how it should be channelled has intensified, particularly since Copenhagen. This means that precision has increased somewhat, such as the quantified commitment made in the Copenhagen Accord for developed countries to mobilize at least US\$100 billion per year by 2020 in climate finance. For the Paris Agreement, some developed countries sought to specify the proportion of climate finance to be reserved for adaptation by proposing quantified targets. These calls were unsuccessful, with the final text recognizing the need for a ‘balance between mitigation and adaptation’ (Article 9.4) and to ‘significantly increase adaptation finance from current levels’ (Decision 1/CP.21, para. 114). Implementing precision in practice has proven difficult due to the lack of a uniform methodology when parties provide their Biennial Reports (UNFCCC Standing Committee on Finance, 2016). Ambiguities remain over the definition of adaptation (Hall, 2017), what baselines to use and what counts as states ‘mobilizing’ private finance.

### *Access to and allocation of multilateral adaptation funds*

Together with commitments to *provide* funds, rules for how to access and allocate multilateral adaptation funds are the only ones where we see evidence of gradually

harder legalization, although these rules are typically adopted through COP decisions rather than set out in the treaties. Four funds supporting adaptation have been established over time under the UNFCCC: the LDC Fund, Special Climate Change Fund, Adaptation Fund and Green Climate Fund. Eligible states do not automatically access funds, but are obliged to follow the rules and policies set by the funds' boards and trustees and approved by the COP, for example, relating to stakeholder consultation, human rights, gender equality and biodiversity conservation (see, e.g., Adaptation Fund Board, 2016; GEF, 2006; Green Climate Fund Board, 2014). In addition, indicators included the funds' 'results frameworks' could potentially strongly influence project design, although the level of precision across indicators varies. For example, the 'number of intended beneficiaries' suggests that adaptation benefits should be widely distributed and is rather precise, whereas 'reduction of vulnerability' leaves much room for interpretation. Looking at rules and criteria to guide the allocation of funds across candidate projects, there is rather low precision on which countries and projects should be prioritized for receiving funds (Persson and Remling, 2014).<sup>29</sup> Importantly, the 'level of vulnerability' criterion for allocating funds has not been elaborated or translated into measurable indicators.

### *Sharing of best practice*

Finally, Parties to the UNFCCC have, over time, agreed on many knowledge-sharing initiatives, which the secretariat and observers have been active in contributing to. This includes guidance materials, examples and case studies, through means such as databases and websites, publications, and events and dialogues like the Nairobi Work Programme.<sup>30</sup> The Adaptation Committee was set up partly for this purpose in 2010. There is no degree of formal obligation in adhering to such best practice or participating in the exchange. However, this type of work can produce not hard rules, but informal norms, for states and other actors on what 'good' adaptation is, for example, that ecosystem-based adaptation should 'establish participatory decision-making that is decentralized to the lowest accountable level' (NWP, 2016: 2) or the selection of discount rates and time horizons for the economic assessment of adaptation options (UNFCCC, 2011). It is for future research to examine the extent to which the UNFCCC initiatives, including the new Technical Examination Process and related initiatives under the Paris Agreement, have had these kinds of effects.

### *Findings: Adaptation has low precision and low obligation*

In summary, we observe a growing number of attempts under the UNFCCC to govern states' adaptation actions. However, this nominal increase does not correspond to a high legalization of rules and commitments. Instead, adaptation governance under the UNFCCC is characterized by *low obligation* as well as *low precision*. While, at face value, it may seem like there is a lot of adaptation governance initiatives, these initiatives are not particularly constraining on states. Analysing the Paris Agreement, Bodansky (2016: 147) draws a similar conclusion that '[m]ost of the provisions on adaptation and means of implementation are expressed, not as legal obligations, but rather as recommendations, expectations or understandings'.

Another pattern is that the level of precision appears to act as a limiting factor on legalization. This can be seen in relation to both the collective and individual commitments. Difficulties in measuring adaptation undermine a higher degree of obligation. How can we have precise obligations when there is no clarity about what exactly adaptation is?

## **Explaining low legalization in global adaptation governance**

Here, we return to the propositions on legalization and examine the evidence for each. We do not test these as rival explanations, but rather seek to identify core explanations that future research should investigate. We suggest that Propositions 1 to 3 from the existing legalization literature are helpful in understanding adaptation's low legalization, and argue that future scholarship should also consider whether issues are commonly accepted as global public goods (Proposition 4), and whether they are side-payments (Proposition 5).

### *Trade-offs between flexibility, sovereignty and legalization*

We find some evidence supporting Proposition 1: that high uncertainty and low sovereignty costs lead to low precision and high obligation. Regarding *uncertainty*, states are unsure of their exposure to future climate risk and impacts, and, by consequence, the net benefits of making investments in adaptation in the near term. Future impacts at the global level are determined by the success of mitigation efforts now and in the future, and also positive and negative feedbacks in the climate system, which are highly uncertain. Furthermore, there is uncertainty around the distribution of climate impacts and how to compare climate vulnerability globally as a basis for collective efforts at adaptation. Another source of uncertainty is ambiguity around the concept of adaptation itself (Hall, 2017); it has been regarded as 'indistinctive' (Ford et al., 2015), 'nebulous' (OECD, 2008) and not fully 'constituted' (Allan, 2017), which limits the degree of precision. Ambiguity can also be strategically exploited and reinforced by Parties and interest groups. Therefore, there may be some circularity at play in that low precision in UNFCCC agreements continues to feed uncertainty about the costs and benefits of international cooperation on adaptation.

*Sovereignty costs* could be high if national commitments on adaptation would imply wide-ranging changes in a country's government spending pattern (e.g. costly infrastructure retrofitting) and new socio-economic groups to be prioritized (e.g. the redistribution of budgets towards flood-prone areas). From this perspective, international binding commitments might be seen as interfering with national sovereignty. In practice, however, states generally perceive the sovereignty costs as low as adaptation is perceived as a technical, low-politics issue and not commonly associated with high-sovereignty cost areas such as security, defence and foreign policy. What this perspective fails to explain is the modest level of obligation observed, which contrasts with the high level that states could, in theory, 'afford'.

### *Asymmetries in power and preferences*

Asymmetric preferences also seem to partially explain the low degree of legalization (Proposition 2). There is a clear asymmetry between developing and developed countries



over financial support. Developing countries have consistently pushed for quantified commitments, transparent reporting and the channelling of finance through multilateral funds, although they have diverged on whether the global goal should be defined in financial terms. Developed countries have called for less binding rules, less precise and quantified commitments, and more flexibility in how financial support is delivered. In contrast, there is less asymmetry over national commitments to undertake adaptation domestically, with no clear evidence that either developed or developing countries have argued for stronger legalization of this element. In fact, developing countries have traditionally argued for more country autonomy in how they use international adaptation financing. As one adaptation expert explained: ‘No one has really pushed for binding commitments on planning and implementation of adaptation. [Except] some LDCs have pushed for it, with the intention that they would be associated with financial support’.<sup>31</sup> In sum, the proposition on the asymmetry of preferences appears to have some validity when it comes to commitments on financial support, but not on national commitments to undertake adaptation.

Considering hegemonic power (Proposition 3) is complex under the UNFCCC. Major powers (the US and China) have generally not supported the strong legalization of adaptation under the UNFCCC. Hegemonic power is somewhat limited by the consensus decision-making rule, and some scholars argue that power has become more symmetrical over time (Oberthür, 2016). Notably, the US reportedly had a strong influence in several elements of the Paris Agreement, such as the exclusion of liability and compensation in the context of Article 8 (Sharma, 2016).<sup>32</sup> However, if the US could have its way, there would likely be little to no global adaptation governance at all. In sum, hegemonic preferences do not appear to be as strongly a determining factor here as in other regimes.

### *A contested global public good*

We suggest that climate change adaptation is a contested global public good and this leads to low legalization (Proposition 4). This is because states are unlikely to set binding, precise *international* rules for a private or a national/local good. States and scholars have questioned whether adaptation is a ‘*public*’ good (or the avoidance of a public bad). Although mitigation clearly provides a global public good (lower atmospheric greenhouse gas concentration and a more stable climate system), many adaptation activities will yield (excludable) private benefits (Barrett, 2008). Second, in cases where adaptation can be considered a *public* good, it has been questioned whether it is a *global* public good, and thus requiring international rather than national responses. For instance, many scholars point at the effects of ‘runaway’ climate change (from displacement to conflict); however, they do not link adaptation to the global public good literature (Ciplet et al., 2015). Khan (2013: 97, 191), on the other hand, does make an explicit proposal that the negative impacts of climate change should be seen as a ‘global public bad’ (e.g. the continuance of statehoods of SIDS, international migration, the price volatility of agricultural commodities, the purchasing power of vulnerable communities) and therefore international assistance for adaptation as a ‘global public good’.

Importantly, states — not just scholars — have divergent views on the global nature of adaptation. Many developing countries have called for the UNFCCC to treat with equal focus adaptation and mitigation — implying that it is, indeed, a global issue.

Interestingly, many argue both that it is a global public good and that it has local or national public good qualities. A developing country UNFCCC negotiator stated that ‘for me it’s not clear cut case to say, its [adaptation is] global or it’s local’. Tuvalu’s Ambassador for climate change, Ian Fry, stated that ‘Adaptation is both a global and a national problem’. Ian Fry explained his position by stating that ‘There is a responsibility of the global community to assist vulnerable countries and communities to adapt to the impacts of climate change, particularly as climate change is a global problem’. Fry also noted that adaptation ‘is essentially domestic and depends on local context, so it is hard to be prescriptive’.<sup>33</sup> Another developing country adaptation negotiator, elaborated that:

One of the difficulties if the lens is that adaptation is a local problem, then [developed states can say] it’s your responsibility and your responsibility only.... If we say that adaptation is first and foremost local, then what we are saying is that we are responsible for our own adaptation irrespective of the fact that we didn’t contribute to the problem. So, there’s a global responsibility, primarily from developed countries, to help developing countries adapt.<sup>34</sup>

However, many developed countries have not officially endorsed a global public good framing.<sup>35</sup> The US is reluctant to set any legally binding, precise obligations in the climate change regime based on a historical responsibility or ‘redistributive multilateralism’ (McGee and Steffek, forthcoming).<sup>36</sup>

The Paris Agreement (Article 7.2) has now, for the first time under the UNFCCC, explicitly stated that ‘adaptation is a global challenge faced by all with local, subnational, national, regional and international dimensions’. It remains to be seen whether this will lead to a less contested framing as a global public good, or not. From this perspective, it is surprising that we see *any* global discussion or cooperation on adaptation at all given that it is a contested global public good. Thus, in the next section, we widen the scope and consider adaptation as part of a climate regime that primarily focuses on mitigation commitments.

### *Side-payment and package deals*

It appears that adaptation governance may have acted as a ‘side-payment’ from developed countries to incentivize developing countries to make mitigation commitments, and this could explain some, albeit low, levels of legalization. Developing countries have consistently called for higher legalization, in particular, regarding financial commitments, but developed countries have been reluctant. This started with the 2007 Bali road-map, where developing countries successfully argued for adaptation to be one of the four pillars for a new global agreement. In Cancun 2010, when the outlook for a new global climate deal was bleak, advancement on adaptation was a key factor for moving ahead. For the Paris Agreement, the inclusion of the global adaptation goal was a key priority for many developing states, but no agreement was made on clear indicators and finance was held separate from the adaptation goal. The inclusion of the global adaptation goal could be seen as part of a wider ‘package deal’, or a side-payment from developed to developing countries to secure cooperation on mitigation commitments. As mentioned earlier, side-payments can be in the form of a concession (e.g. including a global goal on

adaptation) or a cash transfer (e.g. agreeing on a quantified target for financial support). This reasoning does not mean that agreements on adaptation governance can be reduced to only side-payments, or that states' cooperation can cynically be bought and sold. Rather, we highlight here the need to understand adaptation governance as part of a wider 'package deal' in the climate regime.

An additional development is the emergence of loss and damage as a separate issue from adaptation and another potential package deal that has influenced the level of adaptation legalization (Ciplet et al., 2015: 109). Loss and damage negotiations have raised issues of compensation and liability (although not mentioned in the final Paris text), and connect to a long-standing issue of historical responsibility. By separating out compensation and liability from the adaptation issue, adaptation can arguably be approached in a more cooperative, technical and conciliatory way. In the Paris Agreement, developing countries successfully negotiated loss and damage to be addressed under a separate article (Article 8), whereas developed countries had preferred it to be bundled together with adaptation. The compromise struck, though, was that any references to financial liability for developed countries were taken out.

## **Conclusion**

In summary, there are contrasting views on global adaptation governance. On the one hand, some states and scholars view adaptation governance under the UNFCCC as merely for 'optics' and not constituting any strong, binding and legalized commitments on states. This view is implied in much of the literature on the climate regime, which focuses almost exclusively on mitigation (Keohane and Victor, 2016). Although developed states have offered adaptation financing, and agreed to the broad, ambiguous global adaptation goal in Paris, they have avoided any precise, binding obligations on adaptation (Bodansky, 2016; Khan and Roberts, 2013; Lesnikowski et al., 2016). In contrast, other states and scholars have emphasized that adaptation has global public good properties in that adaptation will not just benefit specific states (or regions), but has global and regional dimensions (Khan, 2013). After all, if states do not adapt, the consequences will go beyond nation-state borders. Many developing states, particularly the most affected (AOSIS, SIDS, African states), have endorsed this view of adaptation as a global public good and called for strong binding commitments on adaptation (be it financing or planning).

Despite this debate in the UNFCCC, and between scholars, no existing scholarship has clearly mapped out analytically the existing adaptation governance under the UNFCCC. This article identified an emerging set of rules and commitments related to adaptation. It drew on legalization literature and found low precision and obligation in adaptation governance. We identified five potential explanations for this, drawing on the existing legalization scholarship, secondary literature on adaptation governance and primary interviews. Our analysis suggests that low legalization is partly because adaptation is a contested global public good and has been included as a 'side-payment'. We also noted the significance of: states' trade-offs over uncertainty, sovereignty and flexibility; divergent state preferences between developing and developed states; and the views of powerful states. Building on constructivist critiques of the legalization literature, we

suggest that this literature should consider more closely how issues are constructed and, in particular, whether states contest if they are global and/or public goods, or potentially joint goods. Second, we suggest that the legalization literature should examine if and how states make side-payments within an international agreement as this may influence the degree of legalization.

There are limitations to this study, and thus significant scope for future research. We do not test the five propositions to identify which has most explanatory power. This would require in-depth and extensive analysis of states' evolving positions in the UNFCCC on adaptation, loss and damage, and also in relation to mitigation. A more comprehensive, fine-grained analysis could examine states' positions on the costs and uncertainty of adaptation governance, the role of the US and China (as hegemons) in adaptation governance (as well as AOSIS and G77), the domestic influences on states' positions, how states' views of adaptation as a global public good have evolved over time, and how side-payments have operated. This article provides a more static view of global adaptation governance after the Paris Agreement than Thompson (2010). Furthermore, future research should examine other institutions involved in governing and managing adaptation than the UNFCCC (e.g. the UN Office for Disaster Risk Reduction) given the fragmentation and complexity of the climate regime. A further limitation is that this article looks at only one issue (adaptation) in one regime (climate change), and we cannot provide generalizable statements about legalization in other regimes.

Nevertheless, this article is important for broader policy debate, which has not sufficiently reflected on what sort of adaptation governance we should aim for in the UNFCCC and elsewhere. Should we be aiming for more precise, hard rules or not? Although we do not make any normative assessments, we hope to inform the debate by examining the current level of legalization and identifying the obstacles to more binding adaptation governance. These include: the inherent ambiguity of adaptation as a concept; asymmetric preferences; and differing views on what sort of good (public/private; local/global) adaptation is. We suggest that scholars should focus more on variation in legalization across issues within a single agreement in order to illuminate the trade-offs that states' make and the ways in which issues are constructed. It remains to be seen whether adaptation will be widely accepted as a global public good, which necessitates international cooperation and national substantive commitments, as opposed to being (implicitly) seen as a form of side-payment. However, adaptation is unlikely to disappear from the UNFCCC agenda. After all, in November 2017, Fiji will be the first small island developing state to chair a UNFCCC COP and has made adaptation their priority.<sup>37</sup>

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## Notes

1. We conducted semi-structured interviews between January and May 2017 with: an Australian adaptation negotiator; Ian Fry, Tuvalu's climate ambassador (an Australian national); a climate adaptation expert working at a Pacific regional organization; Developing Country Adaptation Negotiator; a member of the Adaptation Fund Board; and two independent adaptation experts. In previous research projects, the authors have together interviewed over 150 representatives of states, international organizations and non-governmental organizations on aspects of adaptation governance.
2. More specifically, COP13, COP14, COP15, COP21, AFB5 and the Third Adaptation Forum.
3. In fact, a more extensive analysis of all the international institutions involved in adaptation is warranted, this includes the World Bank, the United Nations Development Programme, the United Nations Environment Programme, the Hyogo and Sendai Framework for Disaster Risk Relief, and the Sustainable Development Goals framework, among others.
4. Notably, we do not argue that mitigation and adaptation necessarily *should* be conceived as two separate governance regimes.
5. Non-rivalrous means that one person can consume the good without diminishing its availability for others. Non-excludable benefits mean that people cannot be excluded of the good irrespective of whether they contributed to its production.
6. Note also that there is a range of definitions of soft law, including 'international agreements which fall short of formal treaties but seek to influence state conduct' (Guzman, 2008: 23).
7. Thanks to Sean Richmond for this point.
8. Thanks to Harro van Asselt for this insight.
9. Allan argues that 'object constitution' must occur prior to international cooperation; in other words, states and other stakeholders must identify and construct the issues on the agenda.
10. Thanks to an anonymous peer reviewer for this point.
11. For example, the procurement of products from a state in a sector/issue area different from the one being subject to legalization in order to secure that state's participation in the agreement. Another example could be an increased level of overseas development assistance (ODA) to the potentially participating state.
12. Decision 1/CP.16, 1.4.
13. Decision 1/CP.21, Paris Agreement, Article 2.1: 'Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change'.
14. Decision 1/CP.13, Article 1(c).
15. Decision 1/CP.16, Articles 2(b) and 14(a).
16. For details, see Government of Swaziland (2013), AILAC, Mexico and Dominican Republic (2014), ActionAid, CARE and WWF (2016) and Ngwadla and El-Bakri (2016).
17. For details, see Government of Swaziland (2013).
18. Interview with independent adaptation expert, 30 March 2016.
19. Interview with independent adaptation expert, 10 March 2016.
20. Interview with Developing Country Adaptation Negotiator, 31 March 2016.
21. Email correspondence with adaptation expert at a Pacific regional organization, 31 March 2016.
22. The metric of a ton of CO<sub>2</sub>-equivalent is commonly used to compare efforts relating to different greenhouse gases and different sectors.
23. Decision 1/CP.21, Article 45(b).

24. Decision 5/CP.7 and 7/CP.7. The LDC Fund was established to fund the preparation and implementation of NAPAs, which were thus part of a planning process targeting LDCs. By March 2017, 51 NAPAs had been submitted, of which the last ones were in 2013.
25. Decision 1/CP.16, followed by additional decisions and guidance at later COPs. All developing countries are invited to do NAPs and their preparation has been funded through a variety of channels, including support from the Green Climate Fund (GCF). By March 2017, seven NAPAs had been submitted.
26. Decision 1/CP.20. Parties could choose between these two modalities. Three ‘Undertakings in adaptation planning’ submissions were made in 2015 (the EU, Japan and the US); 137 of the 161 submitted INDCs reported on adaptation plans (UNFCCC, 2016).
27. Note that the 2018 facilitative dialogue, which came out of the Paris Agreement, will not address or report on adaptation.
28. In the Convention, Article 4.3 states that developed countries ‘shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1’ (emphasis added), and Article 4.4 states that they ‘shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects’ (emphasis added). Article 9.1 of the Paris Agreement states that they ‘shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention’ (emphasis added).
29. See, for example, the operational policies and guidelines of the Adaptation Fund (Adaptation Fund Board, 2016: para. 16) and initial investment framework of the Green Climate Fund (Green Climate Fund Board, 2014: Annex XIV).
30. See, for example, the UNFCCC website on knowledge resources (available at: [http://unfccc.int/adaptation/knowledge\\_resources/items/6994.php](http://unfccc.int/adaptation/knowledge_resources/items/6994.php)), which lists 14 databases, the LDC Portal, the NAP Central and over 40 publications.
31. Interview with Adaptation Fund Board Member, 2 May 2016.
32. Thanks to an anonymous peer reviewer for this insight.
33. Email correspondence with Ian Fry, Ambassador for Climate Change and Environment, Government of Tuvalu, 12 May 2016.
34. Interview with Developing Country Adaptation Negotiator, 31 March 2016.
35. Although one Australian official we spoke with did state that ‘adaptation is a global public good. If we don’t adapt, there can be consequences for security and disaster losses will spread. The implications of a failed state in the Pacific region would be huge’. Interview with Australian adaptation official, Department of Foreign Affairs and Trade.
36. They define ‘redistributive multilateralism’ as ‘a global political response that consciously sought to address substantive inequalities between states; either directly through financial transfers or indirectly through the differentiation of obligations under international law’ (McGee and Steffek, forthcoming: 11).
37. See, for instance, UNFCCC statement ‘To Bonn and Beyond’, message from the incoming COP23 President, Prime Minister Frank Bainimarama of Fiji, 10 February 2017, available at: <http://newsroom.unfccc.int/cop-23-bonn/message-from-the-incoming-cop-23-president-prime-minister-frank-bainimarama-of-fiji/> (accessed 13 June 2017).

## References

- Abbott KW and Snidal D (2000) Hard and soft law in international governance. *International Organization* 54(3): 421–456.

- Abbott KW, Keohane RO, Moravcsik A et al. (2000) The concept of legalization. *International Organization* 54(3): 401–419.
- ActionAid, CARE and World Wide Fund for Nature (WWF) (2016) Global goal on adaptation: From concept to practice. Available at: <http://careclimatechange.org/publications/global-goal-adaptation-concept-practice/>
- Adaptation Fund Board (2016) Operational policies and guidelines for parties to access resources from the adaptation fund. 15 March. Available at: <https://www.adaptation-fund.org/wp-content/uploads/2016/04/OPG-amended-in-March-2016.pdf>
- Adger N, Arnell N and Tompkins E (2005) Successful adaptation across scales. *Global Environmental Change* 15(2): 77–86.
- Adger WN (2001) Scales of governance and environmental justice for adaptation and mitigation of climate change. *Journal of International Development* 13(7): 921–931.
- AILAC (The Independent Association of Latin America and the Caribbean), Mexico and Dominican Republic (2014) Adaptation in the ADP: Joint submission of AILAC, Mexico and Dominican Republic. Available at: <http://ailac.org/wp-content/uploads/2014/02/Joint-AILAC-Mexico-DR-ADP-Adaptation-Submission-2014.pdf>
- Allan BB (2017) Producing the climate: States, scientists, and the constitution of global governance objects. *International Organization* 71(1): 131–162.
- Anand PB (2004) Financing the provision of global public goods. *World Economy* 27(2): 215–237.
- Andonova LB, Betsill MM and Bulkeley H (2009) Transnational climate governance. *Global Environmental Politics* 9(2): 52–73.
- Arce DG and Sandler T (2002) *Regional Public Goods: Typologies, Provision, Financing and Development Assistance*. Stockholm: Almkvist & Wiksell International.
- Augenstein D (2016) To whom it may concern: International human rights law and global public goods. *Indiana Journal of Global Legal Studies* 23(1): 225–248.
- Barrett S (2001) International cooperation for sale. *European Economic Review* 45(10): 1835–1850.
- Barrett S (2007) *Why Cooperate? The Incentive to Supply Global Public Goods*. Oxford: Oxford University Press.
- Barrett S (2008) Climate treaties and the imperative of enforcement. *Oxford Review of Economic Policy* 24(2): 239–258.
- Best J (2012) Ambiguity and uncertainty in international organizations: A history of debating IMF conditionality. *International Studies Quarterly* 56(4): 674–688.
- Biermann F (2014) *Earth System Governance: World Politics in the Anthropocene*. Cambridge MA: MIT Press.
- Biermann F and Boas I (2010) Global adaptation governance: Setting the stage. In: Biermann F, Pattberg P and Zelli F (eds) *Global Climate Governance Beyond 2012: Architecture, Agency and Adaptation*. New York, NY: Cambridge University Press.
- Bisaro A and Hinkel J (2016) Governance of social dilemmas in climate change adaptation. *Nature Climate Change* 6(4): 354–359.
- Bodansky D (2012) What's in a concept? Global public goods, international law, and legitimacy. *European Journal of International Law* 23(3): 651–668.
- Bodansky D (2016) The legal character of the Paris Agreement. *Review of European, Comparative & International Environmental Law* 25(2): 142–150.
- Brunnée J and Toope SJ (2010) *Legitimacy and Legality in International Law*. Cambridge: Cambridge University Press. Available at: <http://www.cambridge.org/us/academic/subjects/law/public-international-law/legitimacy-and-legality-international-law-interactive-account?format=PB&isbn=9780521706834>
- Brunnée J and Toope SJ (2011) History, mystery, and mastery. *International Theory* 3(2): 348–354.

- Bulkeley H, Andonova L, Betsill M et al. (2014) *Transnational Climate Change Governance*. New York, NY: Cambridge University Press.
- Byrnes R and Lawrence P (2015) Can soft law solve hard problems: Justice, legal form and the Durban-mandated climate negotiations. *University of Tasmania Law Review* 34: 34–67.
- Carbone M (2007) Supporting or resisting global public goods? The policy dimension of a contested concept. *Global Governance* 13(2): 179–198.
- Ciplet D (2015) Rethinking cooperation: Inequality and consent in international climate change politics. *Global Governance* 21(2): 247–274.
- Ciplet D, Roberts JT and Khan M (2013) The politics of international climate adaptation funding: Justice and divisions in the greenhouse. *Global Environmental Politics* 13(1): 49–68.
- Ciplet D, Roberts JT and Khan MR (2015) *Power in a Warming World*. Cambridge: MIT Press. Available at: <https://mitpress.mit.edu/books/power-warming-world>
- Craft B and Fisher S (2016) Measuring effective and adequate adaptation. Issue Paper, IIED. Available at: <http://pubs.iied.org/10171IIED/?a=B+Craft>
- Dzebo A and Stripple J (2015) Transnational adaptation governance: An emerging fourth era of adaptation. *Global Environmental Change* 35: 423–435.
- Edwards G, Adarve IC, Bustos MC et al. (2017) Small group, big impact: How AILAC helped shape the Paris Agreement. *Climate Policy* 17(1): 71–85.
- Falkner R (2016) The Paris Agreement and the new logic of international climate politics. *International Affairs* 95(5): 1107–1125.
- Finnemore M and Toope SJ (2001) Alternatives to ‘legalization’: Richer views of law and politics. *International Organization* 55(3): 743–758.
- Ford JD, Berrang-Ford L, Biesbroek R et al. (2015) Adaptation tracking for a post-2015 climate agreement. *Nature Climate Change* 5(11): 967–969.
- GEF (2006) Programming paper for funding the implementation of NAPAs under the LDC trust fund. GEF/C.28/18, Washington, DC: Global Environment Facility (GEF).
- Goldstein J, Kahler M, Keohane RO et al. (2000) Introduction: Legalization and world politics. *International Organization* 54(3): 385–399.
- Government of Swaziland (2013) ‘Submission by Swaziland on behalf of the African Group on Adaptation in the 2015 Agreement’. Available at: [https://unfccc.int/files/documentation/submissions\\_from\\_parties/adp/application/pdf/adp\\_african\\_group\\_workstream\\_1\\_adaptation\\_20131008.pdf](https://unfccc.int/files/documentation/submissions_from_parties/adp/application/pdf/adp_african_group_workstream_1_adaptation_20131008.pdf)
- Grasso M (2010) An ethical approach to climate adaptation finance. *Global Environmental Change* 20(1): 74–81.
- Green Climate Fund Board (2014) Decisions of the board — seventh meeting of the board, 18–21 May 2014. GCF/B.07/11. Available at: [http://www.greenclimate.fund/documents/20182/239759/3.2\\_-\\_Investment\\_Framework.pdf/48f5d33e-7100-4002-a045-ea3685452ebc](http://www.greenclimate.fund/documents/20182/239759/3.2_-_Investment_Framework.pdf/48f5d33e-7100-4002-a045-ea3685452ebc)
- Guzman A (2008) *How International Law Works*. Oxford: Oxford University Press. Available at: <https://global.oup.com/academic/product/how-international-law-works-9780195305562>
- Hafner-Burton EM, Victor DG and Lupu Y (2012) Political science research on international law: The state of the field. *The American Journal of International Law* 106(1): 47–97.
- Hall N (2016) *Displacement, Development, and Climate Change: International Organizations Moving Beyond Their Mandates*. London: Routledge.
- Hall N (2017) What is adaptation to climate change? Epistemic ambiguity in the climate finance system. *International Environmental Agreements: Politics, Law and Economics* 17(1): 37–53.
- Hinkel J (2011) Indicators of vulnerability and adaptive capacity: Towards a clarification of the science–policy interface. *Global Environmental Change* 21(1): 198–208.
- IPCC (Intergovernmental Panel on Climate Change) (2014) *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of*



*Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (Eds.)]. Cambridge and New York, NY: Cambridge University Press.

- Javeline D (2014) The most important topic political scientists are not studying: Adapting to climate change. *Perspectives on Politics* 12(2): 420–434.
- Jordan A, Huitema D, Hildén M et al. (2015) Emergence of polycentric climate governance and its future prospects. *Nature Climate Change* 5(11): 977–982.
- Kahler M (2000) Conclusion: The causes and consequences of legalization. *International Organization* 54(3): 661–683.
- Kaufmann-Kohler G (2010) Soft law in international arbitration: Codification and normativity. *Journal of International Dispute Settlement* 1(2): 283–299.
- Kaul I (2003) *Providing Global Public Goods*. Oxford: Oxford University Press.
- Kaul I, Grunberg I and Stern MA (1999) *Global Public Goods. International Cooperation in the 21st Century*. New York, NY: Oxford University Press.
- Keohane R (1984) *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press.
- Keohane RO and Oppenheimer M (2016) Paris: Beyond the climate dead end through pledge and review? *Politics and Governance* 4(3): 142–151.
- Keohane RO and Victor DG (2011) The regime complex for climate change. *Perspectives on Politics* 9(1): 7–23.
- Keohane RO and Victor DG (2016) Cooperation and discord in global climate policy. *Nature Climate Change* 6(6): 570–575.
- Khan MR (2013) *Toward a Binding Climate Change Adaptation Regime: A Proposed Framework* (1st edn). London and New York, NY: Routledge.
- Khan MR and Roberts JT (2013) Adaptation and international climate policy. *Wiley Interdisciplinary Reviews: Climate Change* 4(3): 171–189.
- Klein R (2009) Identifying countries that are particularly vulnerable to the adverse effects of climate change: An academic or a political challenge? *The Carbon & Climate Law Review* 3(3): 284–291.
- Kratochwil F (2014) *The Status of Law in World Society: Mediations on the Role and Rule of Law*. Cambridge: Cambridge University Press.
- Lesnikowski A, Ford J, Biesbroek R et al. (2016) What does the Paris Agreement mean for adaptation? *Climate Policy* December: 1–5.
- Lutz EL and Sikkink K (2000) International human rights law and practice in Latin America. *International Organization* 54(3): 633–659.
- Mace MJ (2005) Funding for adaptation to climate change: UNFCCC and GEF developments since COP-7. *Review of European Community & International Environmental Law* 14(3): 225–246.
- McGee J and Steffek J (forthcoming) The Copenhagen turn in global climate governance and the contentious history of differentiation in international law. *Journal of Environmental Law*.
- Magnan AK and Ribera T (2016) Global adaptation after Paris. *Science* 352(6291): 1280–1282.
- Milner H (1992) International theories of cooperation among nations: Strengths and weaknesses. *World Politics* 44(3): 466–496.
- Ngwadla X and El-Bakri S (2016) The global goal for adaptation under the Paris Agreement: Putting ideas into action. CDKN. Available at: <https://cdkn.org/wp-content/uploads/2016/11/Global-adaptation-goals-paper.pdf>

- NWP (Nairobi Work Programme) (2016) Synopsis series Nairobi Work Programme: Ecosystem-based adaptation and adaptation planning processes addressing ecosystems: overview, good practices and lessons learned. Available at: [http://unfccc.int/files/adaptation/application/pdf/2\\_synopsis\\_ecosystem.pdf](http://unfccc.int/files/adaptation/application/pdf/2_synopsis_ecosystem.pdf)
- Oberthür S (2016) Reflections on global climate politics post Paris: Power, interests and polycentricity. *The International Spectator*, November.
- Oberthür S and Bodle R (2016) Legal form and nature of the Paris outcome. *Climate Law* 6(1/2): 40–57.
- OECD (Organisation for Economic Co-operation and Development) (2008) *Economic Aspects of Adaptation to Climate Change: Costs, Benefits and Policy Instruments*. Paris: OECD.
- Okereke C and Coventry P (2016) Climate justice and the international regime: Before, during, and after Paris. *Wiley Interdisciplinary Reviews: Climate Change* 7(6): 834–851.
- Paavola J and Adger WN (2006) Fair adaptation to climate change. *Ecological Economics* 56: 594–609.
- Persson Å and Klein RJT (2009) Mainstreaming adaptation to climate change in official development assistance: Challenges to foreign policy integration. In: Harris PG (eds) *Climate Change and Foreign Policy: Case Studies from East to West*. London: Routledge, pp. 162–177.
- Persson Å and Remling E (2014) Equity and efficiency in adaptation finance: Initial experiences of the adaptation fund. *Climate Policy* 14(4): 488–506.
- Rajamani L (2016) The 2015 Paris Agreement: Interplay between hard, soft and non-obligations. *Journal of Environmental Law* 28(2): 337–358.
- Reus-Smit C (2011) Obligation through practice. *International Theory* 3(2): 339–347.
- Schipper ELF (2006) Conceptual history of adaptation in the UNFCCC process. *Review of European Community & International Environmental Law* 15(1): 82–92.
- Sharma A (2016) Precaution and post-caution in the Paris Agreement: Adaptation, loss and damage and finance. *Climate Policy* 17(1): 33–47.
- Thompson A (2010) Rational design in motion: Uncertainty and flexibility in the global climate regime. *European Journal of International Relations* 16(2): 269–296.
- UNFCCC (United Nations Framework Convention on Climate Change) (2011) Assessing the costs and benefits of adaptation options: An overview of approaches. Available at: [http://unfccc.int/files/adaptation/nairobi\\_work\\_programme/knowledge\\_resources\\_and\\_publications/application/pdf/2011\\_nwp\\_costs\\_benefits\\_adaptation.pdf](http://unfccc.int/files/adaptation/nairobi_work_programme/knowledge_resources_and_publications/application/pdf/2011_nwp_costs_benefits_adaptation.pdf)
- UNFCCC (2016) Aggregate effect of the intended nationally determined contributions: An update. FCCC/CP/2016/2. Available at: <http://unfccc.int/resource/docs/2016/cop22/eng/02.pdf>
- UNFCCC Standing Committee on Finance (2016) 2016 biennial assessment and overview of climate finance flows report. Available at: [http://unfccc.int/files/cooperation\\_and\\_support/financial\\_mechanism/standing\\_committee/application/pdf/2016\\_ba\\_technical\\_report.pdf](http://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/2016_ba_technical_report.pdf)
- Verheyen R (2002) Adaptation to the impacts of anthropogenic climate change — the international legal framework. *Review of European Community & International Environmental Law* 11(2): 129.
- Watkiss P, Baarsch F, Trabacchi C et al. (2014) *The Adaptation Funding Gap*. Nairobi: United Nations Environment Programme (UNEP).

## Author biographies

Nina Hall is an Assistant Professor in International Relations at Johns Hopkins School of Advanced International Studies (Europe), Italy. Her research on global governance and adaptation has been

published in academic journals, including *Global Environmental Politics*, *Global Governance* and *International Environmental Agreements: Politics, Law and Economics*, and as the book *Displacement, Development and Climate Change: International Organizations Moving Beyond Their Mandates* (Routledge, 2016). She was previously a Lecturer in Global Governance at the Hertie School of Governance and has a DPhil in International Relations from the University of Oxford.

Åsa Persson is Senior Research Fellow at the Stockholm Environment Institute (SEI), Sweden, and leader of the global SEI research theme 'Transforming Governance'. Dr Persson is a social scientist with 14 years of experience working with national and global environmental governance issues. Her work has been published in journals such as *Nature*, *Nature Climate Change*, *Climate Policy*, *Ecological Economics*, *International Environmental Agreements*, *Climate & Development* and *European Environment*, and she has successfully attained competitive academic research grants. A human geographer by training, she received her PhD degree in environmental policy from the London School of Economics and Political Science in 2007.