

Understanding Pledge and Review: Learning from analogies to the Paris Agreement Review Mechanisms

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Abstract

This article draws lessons for the effectiveness of the Paris Agreement's pledge and review mechanisms from the performance of comparable review mechanisms established under other international treaties. The article employs systematic evidence synthesis methods to review the existing literature on international review mechanisms in the human rights, trade, labour, and monetary policy fields and identifies common factors influencing their performance. Applying these findings to the Paris Agreement, the analysis finds that its review mechanisms incorporate many of these factors. In particular, they combine both expert and peer review, allow for repetitive interaction and capacity building, and facilitate the regular and transparent provision of information. The comparative analysis also highlights two major deficiencies of the Paris Agreement: the absence of procedures to assess the adequacy of national pledges and actions taken to implement them and resource constraints in carrying out a complex and arduous review process. Active engagement of non-state actors with review mechanisms is identified as a potential remedy to these shortcomings. However, the overall experience of other regimes suggests that, on their own, review mechanisms provide few incentives for states to undertake significant policy changes. Rather, the political context of each regime conditions the performance of review mechanisms. We therefore conclude that the Paris Agreement's review mechanisms alone are unlikely to effect the necessary ratcheting up of climate policy ambitions.

Policy Insights

1. Review mechanism performance relies on: the accuracy and quality of information produced by the review, a trade-off between expert- and peer-review, repeated interaction, the capacity to carry out the review, the transparency of the review process and its outputs, and the salience and practicality of the review outcomes.
2. The Paris Agreement's strengths lie in its rules designed to facilitate the transparent provision of information, the inclusion of both expert- and peer-review, its facilitation of repeated interaction and in providing support to build the reporting capacities of states.
3. The Paris Agreement severely restricts the salience and practicality of its review outcomes by prohibiting an assessment of the adequacy of national pledges.
4. It remains uncertain whether the UNFCCC secretariat's capacity and resources will suffice to carry out the arduous review task.

1. Introduction

The central objective of the Paris Agreement on Climate Change is to limit global warming to 1.5°C – 2°C to avoid the most catastrophic impacts of anthropogenic climate change (UNFCCC 2015c). The Paris Agreement proposes achieving this goal through a “pledge and review” mechanism requiring states to periodically submit nationally determined contributions (NDCs) that indicate their intended climate action for a given period (UNFCCC 2015c). These pledges are designed as legally non-binding promises (Rajamani 2016). The Paris Agreement seeks to ensure the continuous implementation and strengthening of these pledges by way of a review mechanism intended to incentivize states both to achieve their pledges and to increase their level of ambition over time, a process known as ratcheting-up. The review mechanism consists of (i) a transparency framework that reviews the consistency of biennial reports submitted by member states with the reporting rules and tracks progress in the implementation of submitted NDCs, (ii) a global stocktake that assesses collective progress on achieving the Paris Agreement’s goals, and (iii) a compliance committee that reviews state compliance with the Agreement’s provisions.¹ The non-binding nature of the NDCs constitutes a fundamental departure the Kyoto Protocol, which set binding national emissions targets, the implementation of which was also reviewed through the submission of periodic national reports (Doelle 2016, Falkner 2016, Keohane and Victor 2015, Michaelowa 2015).

Despite the political success of the Paris Agreement, with 193 states ratifying an international treaty to address climate change in record time (UNFCCC 2020), the efficacy of the treaty’s review mechanisms in encouraging states to comply with its core objective remains disputed. Most of the initial pledges made by states in 2015 were updated in 2021². First reviews of their content suggest ambition is being increased (UNFCCC, 2021). Nonetheless, questions remain as to whether the targets set in the NDCs will be reached, with current policies and actions falling significantly short of what is needed to achieve the updated targets (UNFCCC, 2021). Indeed, the literature assessing the Paris Agreement *ex-ante* offer mixed outlooks as to the potential effectiveness of the pledge and review mechanism (Raiser *et al* 2020).

For example, the results of a lab experiment analysing the process of assessment and review of voluntary pledges show that such review processes affect the pledged target level but often do not result in commensurate contributions following implementation (Barrett and Dannenberg 2016). An assessment of the first round of NDCs concludes there is need for more transparency and comparability in future NDCs in order to enable an effective review of climate actions (Pauw *et al* 2018). Others hold that other forms of accountability beyond what is provided for in the Paris Agreement are needed, in particular through bottom up civil society pressure (Karlsson-Vinkhuyzen *et al* 2018). As such, it can be argued that the peer pressure induced by the pledge and review mechanism is unlikely to produce the necessary levels of ambition, with some arguing the Paris Agreement might eventually be at risk of disintegrating due to continued dissension, dysfunction, and disengagement (Sachs 2020).

¹ The transparency framework is set out in Article 13 of the Paris Agreement, the stocktake in Article 14, and the compliance committee in Article 15 (UNFCCC 2015c).

² For a list of all submitted NDCs, see (UNFCCC 2022).

1
2 Conversely, research highlights the conservative nature of the NDCs, positing that they may
3 be surpassed and that the process of formulating NDCs has a catalysing effect on national
4 policy-making processes for climate action (Höhne *et al* 2018). Bäckstrand *et al* 2017, Hale
5 2016 argue that a focus exclusively on national commitments ignores the significant
6 contribution of non-state actors³ (NSAs) in meeting the Paris Agreement’s targets. A legal
7 analysis of the Paris Agreement’s transparency framework argues that the flexibility
8 provided to states ensures widespread participation in the technical review process,
9 enabling objective assessments of compliance which in turn enhance political or legal
10 pressure in other forums (Mayer 2019b). Following these arguments it is posited that pledge
11 and review will catalyse increasing cooperation by incentivizing first movers through flexible
12 commitments and ensuring the iterative ratcheting-up of these commitments, enabling the
13 sharing of knowledge and experiences, setting normative goals, and enhancing pressure
14 built through domestic constituents (Hale 2020).

15
16 In light of these mixed assessments, understanding whether and under which conditions the
17 Paris Agreement’s pledge and review mechanism will be effective remains challenging. In
18 this article, we contribute to this discussion by approaching the prospects for the
19 effectiveness of the Paris Agreement’s pledge and review mechanism from a comparative
20 perspective. The Paris Agreement’s use of pledge and review is often presented as an
21 innovative form of international cooperation in the climate change literature (Falkner 2016,
22 Mayer 2019a, Pickering *et al* 2019). Although the incorporation of voluntary pledges that
23 are to be ratcheted up over time remains a novel and innovative design feature of the
24 Agreement (Falkner 2016), review or transparency provisions have been core to the climate
25 and other environmental regimes from the beginning (Weikmans *et al* 2019).

26
27 For example, the Montreal Protocol’s compliance committee, composed of a cross-section
28 of parties to the Protocol, was the first of its kind in multilateral environmental agreements,
29 and has since inspired many imitations, including the compliance committee of the Paris
30 Agreement (Széll 1998). However, the Committee faced considerable challenges,
31 particularly when dealing with powerful non-compliant states such as Russia (Oberthür
32 1997). Moreover, despite the Protocol’s early success, its transparency provisions have at
33 times exhibited short-comings including data-discrepancies and limited review capacity
34 (Oberthür 1997).

35
36 In the climate regime, transparency provisions have been successful at building state-
37 capacities for providing national greenhouse gas inventories, forming a cornerstone of
38 international cooperation on climate change. However, past experiences also point to
39 significant challenges ahead. Heterogeneous, qualitative, and conditional NDCs will make it
40 difficult to compare countries’ climate ambition. Flexibilities offered to developing countries
41 under the Paris Agreement’s transparency provisions will likely result in incomplete and
42 incomparable information, inhibiting a review of countries implementation of their NDCs
43 (Weikmans *et al* 2019). This is further compounded by capacity constraints, both for
44 countries ability to provide complete information, and for the availability of experts to
45 review this information (Weikmans *et al* 2019).

³ NSAs comprise not only non-governmental organizations (NGOs) but also businesses and regional and city-level governments.

1
2 Considering these challenges, we turn to the experiences with other regimes outside of the
3 climate/environment space. Many of these have also long been incorporating review
4 mechanisms to facilitate cooperation amongst states (Aldy 2014, Hale 2017, Pew Center on
5 Global Climate Change 2010). The factors that influence the performance of such review
6 mechanisms have been subject to extensive empirical analysis in both the international law
7 and international relations literature. We thus aim to contribute to the discussion about the
8 effectiveness of the Paris Agreement's pledge and review mechanism by asking what can be
9 learnt from analyses of the performance of comparable international treaties, particularly
10 their review processes.

11
12 We study five such international regimes whose review mechanisms are comparable to the
13 Paris Agreement's (for a justification of our case selection see the next section):

- 14 1. The World Trade Organization's (WTO) Trade Policy Review Mechanism (TPRM)
- 15 2. The International Monetary Fund's (IMF) Article IV Consultations⁴
- 16 3. The Universal Periodic Review (UPR) of the Human Rights Council (HRC)
- 17 4. The United Nations Human Rights Treaty Bodies⁵
- 18 5. The International Labour Organization's (ILO) Complaint Procedure⁶

19
20
21 We use systematic evidence synthesis methods to comprehensively review research
22 studying these five review mechanisms. We first compile relevant factors identified in the
23 literature as influencing each mechanism's performance. By consolidating these insights, we
24 identify six common factors exhibited in all five mechanisms. We then assess whether the
25 Paris Agreement's review mechanisms incorporate these factors in their design, offering
26 conclusions on their expected performance based on findings from the literature on the
27 other regimes.

28
29 We define the performance of a mechanism as its ability to affect a change in state
30 behaviour that is conducive to achieving the objectives of a regime. This includes both the
31 outcomes produced by the mechanism (e.g. the extent to which states implement the
32 recommendations made by the reviewing body) and the process by which these outcomes
33 are pursued (e.g. the effort, efficiency, and competence with which the reviewing body
34 assesses state compliance and issues recommendations) (Gutner and Thompson 2010).

⁴ Also known as bi- and multi-lateral surveillance.

⁵ We group these treaty bodies into one mechanism as they follow an identical process, despite their different subject matter. The full list of committees is as follows:

1. Committee on the Elimination of Racial Discrimination (CERD)
2. Committee on Economic, Social and Cultural Rights (CESCR)
3. Human Rights Committee (CCPR)
4. Committee on the Elimination of Discrimination against Women (CEDAW)
5. Committee against Torture (CAT)
6. Committee on the Rights of the Child (CRC)
7. Committee on Migrant Workers (CMW)
8. Subcommittee on Prevention of Torture (SPT)
9. Committee on the Rights of Persons with Disabilities (CRPD)
10. Committee on Enforced Disappearances (CED).

⁶ This includes the Committee of Experts on the Application of Standards and the Conference Committee on the Application of Standards.

1
2 The paper proceeds as follows. In Section Two we briefly describe the Paris Agreement
3 Review Mechanisms. In Section Three we explain our case selection and briefly outline our
4 methodological approach; we provide more detail on our methods in Appendix One. In
5 Section Four we detail the six common factors influencing review mechanism performance
6 that emerge from the systematic review exercise. We apply these factors and undertake an
7 ex-ante assessment of the Paris Agreement’s review mechanisms’ performance in Section
8 Five, in which we also discuss these findings and our study’s limitations. Section Six
9 concludes.

10 11 2. The Paris Agreement’s Review Mechanisms

12
13 The Paris Agreement’s review procedure is split into three distinct review mechanisms
14 (UNFCCC 2018, 2015b, 2015c):

15
16 The *Enhanced Transparency Framework* reviews states’ progress in implementing their
17 NDCs as detailed in parties’ biennial transparency reports. These are based on self-reporting
18 by states, with the Paris Agreement’s rules seeking to ensure consistency in the format of
19 reports. However, the level of ambition of individual NDCs and domestic actions to
20 implement them are not assessed. The review is carried out by a committee of nominated
21 experts,⁷ augmented by a peer review in the form of a facilitative, multilateral consideration
22 of progress that is to take place at the sessions of the subsidiary body for implementation.
23 The transparency framework results in the publication of a summary of the expert review,
24 the facilitative dialogue, and the original biennial reports by the UNFCCC secretariat. The
25 transparency framework will become operative in 2024, when the first biennial
26 transparency reports are due (Paragraph 38 UNFCCC 2018).

27
28 The *Global Stocktake* reviews the collective ambition and implementation of the NDCs and
29 global progress made towards achieving the Paris Agreement’s goals⁸ at five-year intervals.
30 It bases its review on a number of sources, including reports submitted by states and
31 information provided by the Intergovernmental Panel on Climate Change (IPCC), the
32 UNFCCC secretariat, and NSAs (Paragraph X.37 UNFCCC 2018). This information is reviewed
33 in three stages: the UNFCCC secretariat (a) compiles all information in a report, which then
34 (b) undergoes an expert review, the (c) outcome of which is finally discussed amongst states
35 in a plenary. The final output of the stocktake is a synthesis report of global progress on
36 achieving the Paris Agreement’s goals compiled by the UNFCCC secretariat. The Global
37 Stocktake is explicitly prohibited from assessing the adequacy of individual states’
38 contributions to this collective progress. The first stocktake will take place in 2023 (UNFCCC
39 2015c).

40
41 The *Committee to Facilitate Implementation and Promote Compliance of Parties with the*
42 *Provision of the Paris Agreement* (Compliance Committee below), is tasked with reviewing
43 state compliance with the procedural provisions of the Paris Agreement, such as whether a

⁷ The Enhanced Transparency Framework Expert Group shall serve the Convention beginning January 1st, 2023. They have yet to be nominated (Paragraph 10 Ad Hoc Working Group on the Paris Agreement 2018).

⁸ It is not yet certain how such a collective review will be carried out without reviewing individual state ambition. For more information see (Milkoreit and Haapala 2019)

1 state submits its NDC on time and includes the right information. The committee is made up
2 of 12 experts nominated by state parties who base their review on information provided by
3 states upon request by the committee or on information provided by the secretariat. The
4 review results in committee recommendations for the state under review. Unless otherwise
5 decided, the committee meets at least twice a year, holding its meetings in conjunction with
6 sessions of the subsidiary bodies serving the Paris Agreement. The committee reports
7 annually to the Conference of the Parties serving as the meeting of the Parties to the Paris
8 Agreement (UNFCCC 2018).

9
10 Previous research has differentiated more strictly between different forms of review -
11 technical expert review of biennial reports and the implementation of existing NDCs; and
12 review of the overall collective progress towards the Paris Agreement's goals, aimed at
13 increasing the ambition of NDCs over time. The transparency framework, Global Stocktake
14 and Compliance Committee are involved in all these functions, but with different emphases
15 (the stocktake, for example, is primarily focused on overall collective progress). We choose
16 not to adopt this distinction as we think these two tasks are closely entwined. For example,
17 transparency provisions are theorized to effect state behavior by providing information to
18 peers, non-state actors and domestic constituents on the implementation of pledges. By
19 extension, this information is also used to assess whether pledges, and the actions proposed
20 to implement them, are ambitious enough to reach the Paris Agreement's goals (Weikmans
21 *et al* 2019). Moreover, the stocktake works on both ends, and the compliance committee is
22 also tasked with ensuring pledges adhere to the Agreement's "no backsliding" rule, which
23 regards ambition.

24 25 3. Case Selection and Methods

26 27 Case Selection

28
29 Our selection of comparable mechanisms to the Paris Agreement was guided by a) their
30 global reach, b) the availability of a significant body of peer-reviewed empirical literature
31 assessing their performance, and c) whether the review mechanisms are sufficiently similar
32 in design. Based on these criteria, we excluded review mechanisms without global reach,
33 such as the regional peer reviews of the Organization for Economic Cooperation and
34 Development and the open method of coordination used by the European Union. We also
35 excluded mechanisms that do have a global reach but for which the literature assessing
36 their performance is scarce, such as the United Nations Convention Against Corruption
37 Implementation Review Mechanism and the United Nations Education, Scientific and
38 Cultural Organization's World Heritage Council Committee.⁹

39
40 We further exclude the Montreal Protocol's Implementation Review Mechanism, as that
41 Protocol has already been extensively studied as an analogy to the international climate

⁹ Further examples include Nuclear Non-Proliferation Treaty (NPT) Review Conferences, Convention on International Trade in Endangered Species (CITES) National Legislation Project, Law of the Sea Convention (UNCLOS) Development of Resources Periodic Review, and Convention on Biodiversity (CBD) peer review. See footnote #3 in Pew Center on Global Climate Change (2010) for more review mechanisms. Our preliminary searches could only find two relevant papers for UNCAC and none for the others.

1 regime (Sachs 2020).¹⁰ Lastly, we focus on the review component of the Paris Agreement,
2 finding no fitting analogy for its innovative ratcheting-up of pledges and discuss our findings
3 in light of this limitation.

4
5 Review processes generally involve i) the *input* of some form of information on state
6 compliance, usually in the form of a report submitted by either states themselves, a
7 selected body of experts, or other NSAs such as NGOs, ii) a *review* of this information by
8 either an international organization (IO) secretariat, states, appointed experts, and/or other
9 stakeholders, and iii) an *output* communication summarizing the review and providing
10 recommendations where applicable. This output is usually non-binding in nature and
11 thereby differentiates review mechanisms from “harder” institutions such as international
12 courts and tribunals (Pew Center on Global Climate Change 2010, Hale 2017). Using this
13 broad structure, we found sufficient similarities between the Paris Agreement’s review
14 mechanisms and the five international review mechanisms we have chosen to study.¹¹ We
15 provide an overview of these elements in Table 1¹² and offer a few general observations
16 below.

17
18 *Input:* apart from the IMF consultations, all the review mechanisms rely primarily on self-
19 reporting by states. As in the global stocktake of the Paris Agreement, this information is
20 often complemented by a report from the secretariat or reviewing body and/or NSA
21 reports. In the WTO review mechanism, this may be further complemented by the IO staff
22 visiting the state under review. The IMF’s surveillance, by contrast, is based entirely on
23 information gathered by IO staff, including country visits during which staff consult local
24 government representatives and other stakeholders.

25
26 *Review process:* the process by which the mechanisms review the information submitted
27 can be loosely grouped into two categories: expert or peer review. In the former, states
28 nominate a body of experts to carry out the review of the information submitted. The latter
29 relies on a more discursive form of review carried out by the states themselves. The ILO
30 peer-review mechanism further includes NSAs such as employers and workers groups
31 directly within the review process. Although most mechanisms focus on either peer or
32 expert review, the ILO, like the transparency framework and the stocktake of the Paris
33 Agreement, includes both.

¹⁰ For example, papers have looked at the role of transfers and technical support in enabling the success of the Montreal Protocol (Chan *et al* 2018), reviewed financial incentives in the protocol as a possibility in climate negotiations (Kemp 2016), highlighted the different cost-benefit structures between the ozone and climate problems (Keohane and Oppenheimer 2016), and highlighted the different foci on technology and its substitutability between the climate and ozone regimes (Puig *et al* 2018). Although these studies offer valuable insights into the climate regime in their analysis of the mechanisms of the ozone regime, we turn our focus to those regimes not yet studied in the climate or environmental contexts with the intention of providing novel insights and promoting comparative analyses across different subject areas in multiple global international review regimes.

¹¹ For a more detailed description of the Paris Agreement’s review mechanisms, see Section Four. To offer comparative insights, Appendix Two provides a detailed account of the five review mechanisms we study.

¹² We base this on a review of regime documents detailing the mechanisms (UNFCCC 2018, 2015c, 2015b, World Trade Organisation 1994, United Nations Human Rights Council 2020, UNOHCHR 2012, International Labour Standards Department 2019)

1 *Output:* all the review mechanisms result in a report compiled by the IO secretariat or staff
2 and/or the reviewing body that summarizes the review process and offers observations or
3 recommendations to the state under review. In the UPR, the report must be adopted by
4 consensus in the plenary. All other review mechanisms make their outputs public, although
5 the IMF requires the approval of the state under review before a report is released.
6

7 Although we find the Paris Agreement comparable to the other global review mechanisms
8 we identify, our comparative approach is limited in one aspect. All international review
9 mechanisms operate in distinct institutional and political contexts at both the international
10 and national levels. As we aim to generalize insights across mechanisms, this contextual
11 diversity makes it difficult to control for confounding variables, limiting our ability to infer
12 causality. We consider this further when discussing our results.
13

14 Methods

15

16 Systematic evidence synthesis methods refer to a group of methods that broadly involve a
17 comprehensive search of the evidence base and result in the systematic collection and
18 analysis of relevant evidence on a particular topic, using verifiable and repeatable methods.
19 As the available evidence base in most research fields is growing considerably, such
20 methods are necessary to provide an overview of the evidence base that avoids limitations,
21 such as selection bias, that can weaken traditional review methods (Minx *et al* 2017). We
22 identified 3552 potentially relevant peer-reviewed papers on the performance of the five
23 international review mechanisms,¹³ providing considerable scope for the use of systemic
24 evidence synthesis to identify common factors that affect the performance of international
25 review mechanisms. The value of our methodological approach lies in enabling such a
26 comprehensive review of existing insights across disciplinary and topical divides.
27

28 We followed strict systematic evidence synthesis protocols¹⁴ to gather and categorize the
29 relevant literature on the five review mechanisms. We used Boolean search strings on the
30 Web of Science and Scopus platforms to search for papers on the five review mechanisms,
31 which led to the 3552 papers referred to above. We then screened these papers for
32 relevance using a pre-determined set of exclusion and inclusion criteria, which left us with
33 78 documents distributed over the five review mechanisms. Appendix One provides more
34 detail on the search and screening process.
35

36 In order to identify common factors influencing review mechanism performance across
37 international regimes, we first reviewed the literature on each regime separately. From
38 each paper, we extracted the key findings identified as relevant, looking particularly for the
39 following elements.
40

¹³ See the methods section in the Appendix for more detail.

¹⁴ See <https://www.roses-reporting.com/>. We did not carry out a critical appraisal of the documents we identified. We found that many documents do not explicitly define their methods but nonetheless offer relevant insights, such as Laird and Valdés (2012) and Redondo (2008): neither paper presents an explicit methodology but both offer relevant retrospective assessments, largely based on regime documents, of their respective review mechanisms. Weighting these insights based on a critical appraisal of the methods used would therefore restrict our findings.

- 1 1. *General* insights into the structure and procedure of the review process and whether
2 the process affects state cooperation.
- 3 2. *Positive* factors that enhance mechanism performance: the effects of the review
4 mechanism on state cooperation.
- 5 3. *Negative* factors that limit mechanism performance: the effects of the review
6 mechanism on state cooperation.

7
8 We coded each paper using the three categories above as codebook categories. The coded
9 excerpts were then summarized for each regime, yielding an account of the factors
10 influencing the performance of each review mechanism; Appendix Two documents these
11 summaries. We also provide an Excel workbook with our coding of each individual paper in
12 the supplementary materials. Comparing these summaries and synthesizing key themes
13 from the literature on each regime into common categories across all regimes, we identified
14 six factors that recurred across the five regimes studied. These factors inform our analysis,
15 providing benchmarks with which we assess the Paris Agreement’s review mechanism.
16

17 Our approach has a number of limitations. We do not critically appraise the papers on which
18 we base our synthesis of common factors; we thus cannot weight the collated evidence
19 according to the quality or rigor of the methods employed in the individual studies we
20 review, be they legal, qualitative or quantitative. Our approach relies instead on the
21 assumption that the findings we synthesize are founded on methodological rigor and
22 employ comparable (implicit) criteria to assess the performance of the mechanisms they
23 study. Given the longstanding debate over how to measure international regime
24 performance, we are aware that this is a significant assumption. We recognize the trade-off
25 between a systematic review of all available literature and the starkly different
26 methodological and data collection approaches employed in this literature. A more rigorous
27 appraisal of the literature on methodological grounds would thus greatly reduce both the
28 variety and size of our sample. We choose to remain inclusive in order to capture recurring
29 themes; we discuss further limitations in Appendix One.

Table 1: An overview of the review mechanisms studied

Regime	Mechanism	Input	Review	Output
The Paris Agreement	Transparency Framework: - Reviews the technical consistency of biennial reports - Reviews progress on the implementation of the NDCs	State reports detailing implementation of NDCs	- Expert Review: Technical review by a body of nominated experts - Peer Review: Facilitative dialogue involving states	A summary of the expert review and the publication of national reports
	Global Stocktake: - Reviews the collective implementation of the Paris Agreement's commitments	Reports on collective implementation of NDCs submitted by: - States - The IPCC - Subsidiary UNFCCC bodies - Other IOs and NSAs	- Expert Review: Compilation of information by the UNFCCC Secretariat - Expert Review: Technical assessment - Peer Review: Political deliberation	A synthesis report of - GHG emissions - Implementation of the NDCs - Adaptation - Finance
	Compliance Committee: - Reviews compliance with the agreement's provisions	- State submissions - Information from the secretariat	Expert Review: Review by 12 experts elected by the UNFCCC Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) to three -year terms	Non-binding recommendations to state under review
World Trade Organization	Trade Policy Review Mechanism	- State report - Reports by the secretariat (may include staff visits to country under review)	Peer Review: Trade Policy Review Board of the WTO General Council discusses reports with an elected discussant	- Summary of the discussion with a position from the secretariat - State report and minutes
International Monetary Fund	Article IV Consultations/Bilateral Surveillance	Report based on IMF staff visits	Expert Review: Reports reviewed by IMF Executive Board (members nominated by states)	Board views on report are communicated back to states (publication only on approval by state under review)
UN Human Rights Council	Universal Periodic Review	- State report - Secretariat Report (including information from IOs) - NSA report	- Peer Review: Review by a nominated troika of states - Peer Review: Interactive dialogue between the state under review and the council (all states)	Outcome report summarizing dialogue (including accepted and rejected recommendations made by the troika); the report must be adopted by the plenary
UN Human Rights Treaties	Treaty Body Committees	- State reports - Shadow reports from NSAs	Expert Review: Review by committee composed of elected members	- Concluding observations of the committee - General Comments (best practices) - Individual Communications
International Labour Organization	Committee of Experts on the Application of Conventions and Recommendations: - Review of compliance with ILO provisions	- State reports	Expert Review: Review by 20 elected jurists	Annual report on state compliance with ILO conventions
	Conference Committee on the Application of Conventions and Recommendations: - Review of report by the Committee of Experts	- Committee of Experts report	Peer Review: Committee composed of states, employers groups, and workers groups	Recommendations for states

4. Results: Common Factors Influencing the Performance of Review Mechanisms of Other International Regimes

Our analysis of the literature on the five review mechanisms yields six common factors influencing the performance of these mechanisms.¹⁵

Quality and accuracy of information

Lacking legally binding and enforceable outputs, all the analysed review processes serve first and foremost as sources of information. The literature identifies information provision as an important condition for the performance of the review processes, with states and other stakeholders relying on the periodic provision of accurate information on state compliance. The accuracy and transparency of this information is crucial. IOs with considerable staff resources like the IMF and WTO are presented as reliable sources of information and thus have considerable influence within public economic policy discourses and by extension states' economic policies.

All review mechanisms also include some form of NSA participation. This is found to be vital in aiding in the collection of information, with the IMF and WTO staff consulting NSAs when compiling their reports, the UPR and Treaty Bodies relying on shadow reporting to supplement states' self-reporting,¹⁶ and the ILO including NSAs directly in its tripartite structure. The consultation of NSAs, particularly by IMF staff, serves to ensure the independence of the information provided which self-reporting by states alone could not achieve. Nonetheless, an overreliance on NSAs in the Treaty Bodies is shown to negatively affect their legitimacy, with NSAs' inputs to the review processes often considered overly critical and unconstructive by states participating in the review process. This undermines the ability of states to negotiate candidly and highlights the need to carefully balance NSAs' involvement. The literature also frequently cited a lack of reporting capacity amongst states as an impediment to the review mechanisms' performance. We therefore find that a greater diversity of sources from which information is solicited and the higher capacity of these sources (primarily states) to provide accurate information lead to better review mechanism performance.

Expert vs. Peer Review

One of the primary distinctions between the review mechanisms studied is whether a review is conducted by experts, peers, or a combination. Our analysis reveals a potential trade-off in this regard. Whereas expert review processes such as in the Treaty Bodies and IMF consultations provide technical, non-political information and thereby enhance state learning, they also lack the political pressure of peer-review mechanisms. By contrast, the literature on the UPR consistently highlights the political nature of peer review as a factor exerting considerable pressure on states to comply. This is further supported by evidence

¹⁵ For details on the performance of each review mechanism studied, see Appendix Two.

¹⁶ The Treaty Bodies committees established a process of engaging with NSAs after they were established by the UNOHCHR, indicating that such engagement could also be undertaken by committees established by the Paris Agreement's review mechanisms at a later date; see OHCHR (2020a, 2020b, 2020c).

1 from the peer review in the WTO TPRM. Nevertheless, the political nature of peer review is
2 shown to impede the kind of constructive dialogue that enables learning in expert-review
3 mechanisms. We thus find that the choice between expert- and peer-review designs
4 accentuates different effects of the review process, with expert review putting the focus on
5 information exchange and learning and peer review on political pressure. A combination of
6 both designs might elicit the benefits of each. However, the literature on the ILO's review
7 mechanisms, which do combine expert and peer review, offers no conclusive empirical
8 evidence on whether this is the case.

9 10 *Repetition and interaction*

11
12 A further commonly identified feature determining review process performance is the
13 institutionalized repetition of reviews and interaction. Review processes are shown to have
14 a cumulative effect rather than producing one-shot outcomes. Repeated interaction serves
15 to socialize states and diffuse norms. Moreover, repeated and interactive dialogue and the
16 publication of best practices is shown to facilitate learning in the Treaty Bodies, WTO, IMF,
17 and ILO review processes. Related to such repetition is the need for follow-up procedures,
18 with review processes considering states' implementation of previous recommendations.
19 These are shown to increase pressure on states to comply, as exemplified in the UPR, where
20 follow-up helps to ensure states not only accept recommendations under peer review but
21 also enact measures to implement them before the next review cycle.

22 23 *Capacity to review*

24
25 A common deficiency of the review processes is a lack of resources. Periodic review requires
26 extensive resources. Whereas the IMF is praised for its considerable use of staff resources
27 for review, the Treaty Bodies, ILO, UPR, and WTO are all criticized as being under-resourced
28 and thus unable to keep up with the arduous task of reviewing all the states in their remit.

29 30 *Transparency*

31
32 To allow for the dissemination of the outputs of the review process, transparency is crucial,
33 and the involvement of NSAs is shown to be particularly important. Beyond aiding in
34 supplying information for review, NSAs form the primary means of domestic mobilization
35 that pressures national governments to implement recommendations. This is especially
36 pertinent in the Human Rights and ILO review processes, where NSAs are directly involved.
37 The WTO and IMF review processes do not allow for such direct involvement, and any role
38 of NSAs in domestic mobilization is not cited by the literature studying these mechanisms.
39 However, the IMF's influence on broader economic policy discourse is one example of how
40 review processes may also indirectly influence NSAs and domestic political processes.

41 42 *Impractical recommendations*

43
44 Review outputs are frequently criticized as being too broad and lacking actionable
45 recommendations for states. In the case of the Treaty Bodies, the lack of political expertise
46 of experts is identified as contributing to vague recommendations. In the UPR and WTO, the
47 tight schedule and limited capacity to review all states leads to short individual reviews,

1 restricting the possible depth of the interaction between the state under review and the
2 review bodies. This reinforces of the importance of sufficient IO resources and staff
3 expertise.
4

5 5. Assessing the Paris Agreement’s Review Mechanism: Applying Lessons Learnt from 6 the Performance of Other International Regimes 7

8 In this section, we use the six factors detailed above as benchmarks to assess the Paris
9 Agreement’s review mechanisms. We base our analysis on the Paris Agreement text
10 (UNFCCC 2015c), its accompanying decision (UNFCCC 2015b), and the rulebook (UNFCCC
11 2018). We complement these documents with insights from recent research on the Paris
12 Agreement. We summarize our findings in Table 2 We finish the section with a discussion of
13 the implications of these findings for the expected performance of the Paris Agreement’s
14 review mechanisms; specifically, we highlight the importance of considering the political
15 context in which the Paris Agreement was negotiated.
16

17 Results 18

19 *Quality and Accuracy of Information* 20

21 Both the transparency framework and the global stocktake require the submission of
22 detailed information on states’ greenhouse gas emissions and their (intended) climate
23 actions. This includes a report on national anthropogenic greenhouse gas emissions by
24 sources and removals by sinks, information necessary to track progress on each state’s NDC,
25 information on climate impacts and adaptation, and information on support required
26 (developing countries) or provided (developed countries); for more detail, see the Annex on
27 the modalities and procedures relating to the transparency framework (UNFCCC 2018, pp.
28 95–123). Ensuring states can provide all this information will require building significant
29 reporting capacities, particularly in developing and least developed countries. Although
30 states are already required to broadly report such information under the UNFCCC, the Paris
31 Agreement has enhanced information requirements, particularly for developing countries
32 who did not previously have mitigation obligations to report on. Indeed, existing research
33 based on past experiences with transparency provisions in the UNFCCC has highlighted
34 capacity constraints as a potential barrier to the effectiveness of the Paris Agreements
35 transparency provisions (Weikmans *et al* 2019). All three Paris Agreement review
36 mechanisms explicitly refer to the need to consider national capacities, and the Agreement
37 establishes the Capacity Building Initiative for Transparency to aid in that effort (Paragraph
38 84 UNFCCC 2015b, p 12). However, it remains to be seen whether this can be done
39 effectively and at the necessary scale, with the existing literature highly critical of past
40 capacity-building initiatives (Khan *et al* 2018, 2020). The stocktake allows for NSA
41 submissions, which should enhance the accuracy of the information submitted.
42

43 *Expert vs. Peer Review* 44

45 The Paris Agreement’s combination of expert and peer review in both the transparency
46 framework and stocktake make for a hybrid design feature. From our analysis of analogous
47 mechanisms, expert review can be expected to provide both states and other relevant

1 stakeholders with important information on the implementation of NDCs and may facilitate
2 learning through the sharing of best practices in the global stocktake. Meanwhile, peer
3 review may subsequently put pressure on states to respond to any criticisms of their
4 practices. However, the extent to which this will be realized remains to be seen and
5 depends largely on how both experts and states participating in the peer review interpret
6 and engage with the review process. The ILO’s combination of expert and peer review
7 explicitly divides naming and shaming, with the expert review identifying non-compliers and
8 peer review putting pressure on them to respond. An emphasis of the need for a
9 “facilitative review in light of national circumstances” in the Paris Agreement text indicates
10 that both expert and peer review may lack such a critical approach, limiting the pressure
11 they apply on states (Article 13.3. UNFCCC 2015a). Moreover, recent evidence shows that
12 engagement with existing expert-review processes remains uneven and that facilitative peer
13 review under the UNFCCC has encountered capacity constraints, lacks follow-up
14 procedures, and risks ritualization (Weikmans and Gupta 2021, Gupta *et al* 2021).

15
16 The evidence from other review mechanisms suggests that involving NSAs could help to
17 resolve these shortcomings, especially by mobilizing domestic actors. However, under the
18 Paris Agreement, NSAs may only observe the peer review, calling into question whether
19 NSAs are sufficiently involved to mobilize domestic pressure. Nonetheless, the Treaty
20 Bodies’ experience shows that there is scope for the committees established by the Paris
21 Agreement to introduce NSA involvement in its working methods in the future.¹⁷

22 23 *Repetition and Interaction*

24
25 A further positive aspect of the Paris Agreement’s review mechanisms lies in their repeated
26 (periodic) nature. The transparency framework requires states to submit reports on
27 implementation every two years, and the stocktake reviews collective ambition every five
28 years. However, although our analysis of other review mechanisms presents such repetition
29 as a positive factor enabling state socialization, the UNFCCC has been holding high-level
30 negotiations in the form of conferences of the parties every year for over 25 years, and has
31 also required states to submit periodic reports and greenhouse gas inventories.¹⁸ Although
32 progress has been made in some areas, for example in building a base of rigorous
33 greenhouse gas emissions data, overall progress on climate action remains insufficient and
34 past experiences of the UNFCCC have been mired in negotiation deadlocks. We must
35 therefore caution against an overly optimistic interpretation of the Paris Agreement’s
36 repeated nature and encourage further study of whether the Agreement’s structure is more
37 conducive to socialization than previous agreements (e.g. because it is now concerned with
38 domestic policies).

39 40 *Capacity to Review*

41

¹⁷ The compliance committee convened twice in 2020 and is in the process of developing general provisions to guide its work, which could include engagement with NSAs (UNFCCC 2020a).

¹⁸ Reporting requirements differed for Annex I and Non-Annex I countries. Nevertheless, since 2014 all countries have been required to submit biennial reports, with national communications due every four years (UNFCCC 1998).

1 The Paris Agreement sets up a demanding and multi-layered review process requiring an
2 immense institutional effort by states, the UNFCCC Secretariat, and other stakeholders. It
3 remains to be seen whether NSAs will be able to provide comprehensive input to the review
4 process and whether the resources of the UNFCCC will suffice to co-ordinate the daunting
5 task ahead. With almost all the comparable review mechanisms we study suffering from a
6 lack of resources and reporting capacities, the experience of the IMF is instructive in this
7 regard. Through the strategic use of considerable resources, IMF staff are able to effectively
8 survey state compliance; for example, they create feedback loops in the form of repeated
9 interactions with national stakeholders. They are seen as reliable experts with considerable
10 influence within economic policy discourse and use this influence to diffuse policy advice
11 where individual reviews are ineffective. With only a fraction of the IMF's budget,¹⁹ such
12 influence seems far beyond reach for the UNFCCC. Rather, it appears more likely that
13 limited resources will pose a serious threat to meeting its own arduous review schedule.
14 Indeed, although the UNFCCC has considerable experience with transparency provisions,
15 this experience has shown that the review process places a considerable burden on parties,
16 the UNFCCC and expert reviewers (Weikmans *et al* 2019). The Paris Agreement will increase
17 this burden. For example, the UNFCCC expects to require twice as many expert reviewers by
18 2022 (UNFCCC 2019).

19

20 The involvement of NSAs could help alleviate this lack of resources. The UPR and Treaty
21 Bodies actively encourage NSA input, minimizing procedural hurdles whilst requiring a
22 common format for written input to facilitate comparison and synthesis; they offer an
23 encouraging model. Indeed, efforts such as the UNEP emissions gap reports or the individual
24 country reviews of the climate action tracker already offer scope for similar engagement by
25 NSAs with the Paris Agreement (UNEP 2018, Climate Action Tracker 2020). Nonetheless,
26 despite the engagement of the UPR and Treaty Bodies with NSAs, the literature still cites a
27 lack of capacities as limiting their performance, suggesting that NSAs cannot entirely
28 overcome internal capacity constraints.

¹⁹ IMF: \$US1,186 million (International Monetary Fund, 2020b); UNFCCC: US\$203 million, converted from €172 million (UNFCCC, 2020).

Table 2: Characterizing and assessing the Paris Agreement review mechanisms with respect to key factors distilled from the performance of other review mechanisms

Important Features for Review Mechanism Performance	Paris Agreement Review Features			
	Transparency Framework	Global Stocktake	Compliance Committee	Overall Assessment
Quality and accuracy of information	<ul style="list-style-type: none"> - Submission of detailed information - Capacity building frequently highlighted 	<ul style="list-style-type: none"> - Submission of detailed information - Allows for NSA submissions - Capacity building frequently highlighted 	<ul style="list-style-type: none"> - Supports states in reporting - Capacity building frequently highlighted 	<ul style="list-style-type: none"> - Positive: highly detailed information requirements and explicit reference to capacity needs and building
Expert vs. peer review	<ul style="list-style-type: none"> - Expert and peer review - NSAs may only observe the peer review 	<ul style="list-style-type: none"> - Expert and peer review - NSAs may only observe the peer review 	<ul style="list-style-type: none"> - Expert review only 	<ul style="list-style-type: none"> - Mixed: a combination of expert and peer-review that lacks NSA participation
Repetition and interaction	<ul style="list-style-type: none"> - Every two years - Follow-up on technical issues raised, but assessment of ambition prohibited 	<ul style="list-style-type: none"> - Every five years - Follow-up impossible due to collective nature 	<ul style="list-style-type: none"> - Ongoing - No provision for follow-up 	<ul style="list-style-type: none"> - Mixed: repetition and follow-up on technical issues, but lacks assessment of ambition
Capacity to review	<ul style="list-style-type: none"> - UNFCCC resources for review unclear 	<ul style="list-style-type: none"> - UNFCCC resources for review unclear 	<ul style="list-style-type: none"> - UNFCCC resources for review unclear 	<ul style="list-style-type: none"> - Not applicable: no assessment of UNFCCC resource adequacy possible
Transparency	<ul style="list-style-type: none"> - Outputs are highly transparent - Extent of domestic mobilization unclear, with NSA involvement limited 	<ul style="list-style-type: none"> - Outputs are highly transparent - NSA participation in submitting information to review may promote domestic mobilization 	<ul style="list-style-type: none"> - Output transparency unclear²⁰ 	<ul style="list-style-type: none"> - Positive: highly transparent processes; domestic mobilization through NSAs remains unclear
Practical recommendations	<ul style="list-style-type: none"> - Prohibition of the review of the adequacy of national ambition and the adequacy of actions limits practicality of outputs 	<ul style="list-style-type: none"> - Not applicable due to collective nature of the review 	<ul style="list-style-type: none"> - Committee is mandated to provide practical recommendations for states 	<ul style="list-style-type: none"> - Negative: only compliance committee has the scope for practical recommendations

²⁰ See note 18.

1 *Transparency*

2

3 A clear positive of the Paris Agreement's review mechanisms lies in their transparent
4 provision of information on state compliance with procedural requirements. The
5 transparency framework and global stocktake are tasked with collecting and reviewing
6 information on a wide variety of matters relating to the implementation of NDCs. The
7 transparency of these processes ensures that anyone with access to the internet may access
8 this information. Nonetheless, engagement with past transparency provisions in the
9 UNFCCC has been uneven, with significant variation in adherence to mandatory reporting
10 requirements and no indications of improvements over time (Weikmans and Gupta 2021).
11 Such uneven engagement will need to be overcome to fully benefit from the Paris
12 Agreement's transparency provisions. Finally, recent research has questioned the beneficial
13 role of ever-increasing transparency in the climate regime, providing evidence that this may
14 in fact distract from accountability (Gupta *et al* 2019).

15

16 *Practical Recommendations*

17

18 The prohibition of the transparency frameworks' assessment of the adequacy of individual
19 state action is the most pertinent shortcoming of the Paris Agreement's review
20 mechanisms, as it profoundly limits their ability to incentivize cooperation. Although the
21 framework does review the individual implementation of the NDCs, its inability to provide
22 meaningful recommendations on how to improve states' actions limits their ability to learn
23 how to best enhance their ambitions. Moreover, lacking a review of the adequacy of
24 individual state pledges and actions, the review process is not set up to apply significant and
25 policy-specific pressure on states, remaining instead primarily a source of more general
26 inventory information on existing state policies. This drawback is compounded by the lack of
27 follow-up procedures. The stocktake's collective nature inhibits follow-up on the progress of
28 individual states in achieving the Paris Agreement's goals. The transparency framework does
29 allow for follow-up on technical issues, but the lack of a substantive assessment of states'
30 climate ambitions severely limits the salience of these measures. Finally, the compliance
31 committee does not yet include follow-up procedures, although here the experience of the
32 Treaty Bodies shows that such procedures can be established over time.

33

34 *Discussion*

35

36 Through its three-part structure combining the transparency framework, global stocktake
37 and Compliance Committee, the Paris Agreement incorporates many of the features we
38 identify as enabling the performance of international review mechanisms. It combines
39 expert and peer review, in theory taking advantage of the political pressure applied by peer-
40 review processes and learning enabled through expert-review. However, past experience
41 shows that the facilitative nature of the review process can dampen the political pressure it
42 can apply. The Paris Agreement's detailed transparency framework seeks to ensure the
43 provision of structured information on individual state's climate actions every two years,
44 and the global stocktake provides for a comprehensive overview of global progress on
45 climate change. Here too, however, experience with the UNFCCC's transparency provisions
46 shows that uneven adherence to reporting requirements has limited the quality of
47 information upon which the expert-review process is built. Moreover, even if these barriers

1 to transparency are overcome, experiences show that the benefits of increased
2 transparency are limited (Gupta *et al* 2019). Repetition and a focus on national capacities in
3 all three review mechanisms provided for in the Paris Agreement suggest there will be
4 plenty of opportunities for learning by way of sharing best practices. The experience of
5 review mechanisms in other international regimes also indicates that repetitive interaction
6 facilitates state socialization through the diffusion of norms and shared expectations over
7 time.

8
9 However, the lack of an individual review of ambition and policy effectiveness severely
10 restricts the Paris Agreement's review mechanisms' ability to exert pressure on states and
11 offer them practical recommendations. As such, whilst the Paris Agreement provides
12 important information required for tracking states' climate actions, it offers few incentives
13 for states to significantly change their behaviour. This is further compounded by a lack of
14 direct participation by NSAs in the review process itself, potentially inhibiting the extent to
15 which NSAs could mobilize domestic pressure, unless they find alternative avenues to do so.
16 Finally, the complicated and highly detailed review structure will require immense effort
17 and resources from the UNFCCC and all involved parties and stakeholders. Despite previous
18 experience with transparency provisions, the Paris Agreement will significantly increase the
19 burden placed on the UNFCCC, for example requiring twice as many experts. Although no
20 comprehensive assessment of the adequacy of the UNFCCC's resources exists, the
21 experience from other regimes is hardly encouraging.

22
23 These findings suggest that, from a design perspective, the Paris Agreement's review
24 mechanisms lack the necessary stringency and resources to substantially alter states'
25 behaviour in the area of cooperation. However, international review mechanisms do not
26 operate in a political vacuum. In our analysis of comparable regimes, we find considerable
27 evidence that institutional arrangements at both the international and national levels
28 condition review mechanism performance (see Appendix Two). The IMF, for example, has
29 the consistent support of powerful states which dominate the organization through
30 weighted voting systems. The evidence we review on the IMF shows that this political
31 dynamic influences the performance of its review mechanism, highlighting its uneven effect
32 and bias towards powerful members. The studies on the UPR further show that political
33 pressure exerted by peer-review in the UPR is conditioned by geopolitical allegiances. The
34 ILO's review is shown to work best in confluence with other forms of pressure such as
35 international diplomatic ties.

36
37 There is no doubt that political dynamics will also condition the Paris Agreement's review
38 mechanisms' performance; indeed, they have already influenced their design. The
39 considerable tensions between states surrounding the negotiation of the Paris Agreement
40 rulebook, in which most of the details of the review mechanisms were determined, suggest
41 negotiators were (and still are) aware of the shortcomings we identify through our analysis
42 (Rajamani and Bodansky 2019, Gupta *et al* 2019). The UNFCCC's institutional arrangement
43 dictates that negotiated outcomes will, to some extent, always be sub-optimal as individual
44 state positions need to trade off interests in order to gain consensus (Keohane and Victor
45 2016). In viewing the shortcomings we identify above, it can be argued that they reflect the
46 political context and constraints which gave rise to the Paris Agreement. This lends
47 important support to our conclusion that the Paris Agreement's review mechanisms can

1 only be effective in conjunction with major changes in this political context, such as
2 changing states' domestic preferences or the UNFCCC's institutional arrangements (e.g.
3 introducing conditional financial or other incentives for ratcheting up domestic policy).
4

5 Considering these findings, we note one final caveat here: lacking an appropriate analogy to
6 the Paris Agreement's pledges, our analysis does not offer any conclusive insights on
7 whether the requirement for states to submit increasingly ambitious pledges will actually
8 facilitate ratcheting up the ambitions of global climate action. Game-theoretic analysis of
9 such a pledge and review process suggests they will not because, on its own, pledge and
10 review facilitates only gradual and limited implementation (Barrett and Dannenberg 2016).
11 By contrast, Hale (2020) suggests that the Paris Agreement may in fact catalyse increased
12 ambitions by providing the necessary incentives for action by incentivizing first movers
13 through flexible commitments that enable iterative ratcheting up of these commitments, via
14 the sharing of knowledge and experiences, setting normative goals, and enhancing pressure
15 built through domestic constituents. Without having studied the dynamics of increasingly
16 ambitious pledges outright, our analysis of comparable review mechanisms point towards
17 the former diagnosis, suggesting that the Paris Agreement review processes will fail to
18 produce the necessary incentives for significantly deepening state cooperation. Rather, we
19 argue that other factors beyond review mechanisms are needed to change state incentives
20 and push states to implement meaningful climate policies. These include changes in
21 domestic political preferences, as through social movements, NSA assessments of policy
22 effectiveness, and strategic industrial competitiveness considerations that increase
23 corporate demand for stringent climate policy to gain shares in emerging clean technology
24 markets.²¹
25

26 6. Conclusions

27

28 The Paris Agreement's pledge and review mechanism constitutes the primary means
29 through which to facilitate state cooperation on climate change and coordinate
30 international climate action. With many of the Agreement's provisions yet to be
31 implemented, this article has studied what can be learnt from the experience of comparable
32 review mechanisms in other international regimes.
33

34 In light of our findings, we make three recommendations for the continued development of
35 the Paris Agreement's review mechanisms: 1) there is an urgent need to ensure that the
36 UNFCCC budget and staff are commensurate to the review task; further research on the
37 budgetary and staff requirements to undertake these reviews is needed. 2) Further research
38 into the role of NSAs in the review process would be useful; it could focus on (a) how NSAs
39 can contribute to the review process and technical analyses and on any possible trade-offs
40 regarding their involvement and the ability for states to negotiate candidly and (b) on the
41 role of NSAs in exerting pressure on states and the extent to which they are able to mobilize
42 domestic constituencies given the existence of the Paris Agreement review mechanisms. 3)
43 Given that the Paris Agreement explicitly prohibits an assessment of the adequacy of
44 national NDCs and actions taken to implement them, NSAs and academia should fill this gap
45 by continuing and enhancing efforts such as the UNEP emissions gap reports and the

²¹ For a study of perceived obstacles and options involving climate policies, see Kornek *et al* (2020).

1 individual country reviews of the Climate Action Tracker (UNEP 2018, Climate Action Tracker
2 2020).

3

4 To conclude, based on our analysis of other international regimes we find no reason to
5 assume that the Paris Agreement’s review mechanisms will have a major impact on national
6 emission reduction efforts. Although they incorporate many of the lessons we draw from
7 the review mechanisms of other international treaties, the experience with those
8 mechanisms also shows that incentives for changing policy based on the information and
9 agenda-setting functions by themselves appear limited. In the decidedly restrictive
10 institutional arrangement of the UNFCCC, the potential for review mechanisms to
11 sufficiently alter state behaviour appears even more limited. Only in conjunction with other
12 major changes (e.g. in national public opinion, industry positions, and energy technology
13 costs) might the Paris Agreement structure facilitate ratcheting up of policy ambition.

14

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