

# IMPLEMENTING DECISIONS ON ENVIRONMENTAL CONFLICTS BEYOND THE NATION STATE

## A CONCEPT STRUCTURAL OUTLINE

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*This article theorises the national implementation of European and international decisions on environmental conflicts, integrating both judgments from courts and so-called managerial decisions from (non-)compliance mechanisms in multilateral environmental agreements. Starting from the observation that the impact of climate change is increasing with backlash from populist governments and political regimes against its mitigation, implementing legal obligations in the absence of specialised environmental courts is crucial to protect the environment from harm. However, systematic insights on the national implementation of judgments and managerial decisions made beyond the nation state are underexplored. Following a political science perspective, this article conceptualises the conditions explaining this phenomenon by making use of existing research from various disciplines including political science and law on policy implementation to enable systematic comparisons. For this purpose, the article outlines a concept structural approach based on two hypothesised explanations: one based on the mechanisms used to solve conflicts, and another relating to the legitimacy of relevant institutions and processes of conflict resolution. These explanatory pathways reflect the existing management and enforcement approaches from the political science literature on implementation and follow a conjunctural logic. The theoretical approach developed in this article enables systematic comparisons across decisions and thus accounts for a variety of separate but equally valid explanations. Future research and empirical analysis will directly feed back into the concept structure for further theoretical development and lead to generalisable insights on the national implementation of court judgments and managerial decisions on environmental conflicts. In this way, the aim is to contribute to both political science and legal literature regarding European and international environmental law, environmental politics, and judicial governance.*

## 1 INTRODUCTION

The protection of Earth's environment is a global undertaking not confined to the borders of nation states. Damage to nature and people alike due to hazardous waste from industrial production or environmental disasters, but also the impact of industrial activity on the quality of drinking water and air can result in conflicts that reach across territorial levels of governance. Such conflicts are resolved beyond the nation state, but they require national implementation. For example, the European Court of Justice (CJEU) has established

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extensive case law on the protection of ambient air in the European Union (EU) based on Directive 2008/50, without which the directive would have not been implemented comprehensively in the Member States.<sup>1</sup> Against the background of the increasing impact of climate change and a lack of specialised jurisdiction over supra- and international environmental conflicts, implementing environmental legal obligations is therefore a crucial tool to protect the environment.

The research puzzle resulting from this observation is that implementation of such obligations occurs despite resting on distinct types of what is called ‘resolution mechanisms’ hereafter – an umbrella term containing court judgments and managerial decisions from non-compliance mechanisms (NCMs).<sup>2</sup> Following a political science perspective, this article makes theoretical and conceptual contributions to both political science and legal literature by developing an analytical framework that enables empirical comparisons of national implementation processes of European and international court judgments and managerial decisions on environmental conflicts.<sup>3</sup> In this context, it focuses on conceptualising *macro-level conditions* for effective national implementation. Different from legal analysis, the article is aimed at enabling broad empirical comparisons across resolution mechanisms and integrating judgments and other decisions at EU level and internationally. While decisions in the context of EU law carry a different weight for Member States than international law for consenting states, the macro-level approach in this article aims at identifying general conditions for effective implementation valid across different arenas. Insights from this work are relevant for legal researchers because it provides an innovative framework for systematic empirical comparisons across different types of resolution mechanisms and on different governance levels. This can feed into legal research by facilitating a different and critical perspective on environmental conflicts, thus offering new ideas and inspiration enabling further detailed legal doctrinal analysis of specific judgments and decisions. The article addresses the following research question from a political science perspective: *How can the effective national implementation of European and international judgments from courts and managerial decisions from non-compliance mechanisms on environmental conflicts be theorised to enable comparisons across resolution mechanisms?*

To answer this question, a novel research design is developed based on the idea of *concept structures*,<sup>4</sup> a formalised methodology of concept building in the social sciences that uses formal logic and indirectly set theory to specify concepts and conceptual and empirical relationships within research designs. Concept structures provide a strong connection

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<sup>1</sup> Delphine Misonne, ‘The emergence of a right to clean air: Transforming European Union law through litigation and citizen science’ (2020) 30(1) *Review of European, Comparative & International Environmental Law* 34.

<sup>2</sup> While this article is written from a political science perspective, the terminology is used in different ways depending on discipline, which is why terms building on both political science and legal literature have been developed that are used consistently throughout the article (see *Table 1*).

<sup>3</sup> Although the terms ‘dispute’ and ‘conflict’ are broad and often used to describe a wide range of phenomena including private disputes, the focus of this research is on the context of European and international courts, tribunals, and multilateral agreements.

<sup>4</sup> Gary Goertz, *Social Science Concepts. A User’s Guide* (Princeton University Press 2006); Gary Goertz, *Social Science Concepts and Measurements. New and Completely Revised Edition* (Princeton University Press 2020); see also Andreas Corcaci, *Compliance in der Europäischen Union. Mengentheoretische Konzeptformation und logische Formalisierung anhand einer QCA qualitativer Fallstudien* (Studien zur Europäischen Union Vol. 10, ed Wolfgang Wessels, Springer VS 2019).

between theoretical foundations, methodology, and empirical analysis. The resulting framework is developed with three distinct aims: (1) to establish a conceptual and analytical basis for comparisons; (2) to theorise the conditions for effective implementation of judgments and managerial decisions against the background of different actor preferences, in particular the perceived legitimacy of institutions and processes, and the type of resolution mechanism; (3) as a basis for empirical analysis based on set theoretic multimethod research (SMMR),<sup>5</sup> especially a configurational assessment of medium case numbers and subsequent process tracing of unexpected cases.

In section 2, the implementation of European and international judgments and managerial decisions on environmental conflicts is theorised. A literature overview is provided to put the research into context and connect different strands of literature to the concepts and conditions at hand, focusing on political science as well as legal contributions when relevant to the research context. Section 3 starts from existing research on implementation in the EU<sup>6</sup> to discuss resolution mechanisms and their legitimacy in more detail as core conditions. While the article also makes use of legal research to illustrate the relevance of these conditions from perspectives outside of political science, this section explicitly does not aim at a systematic doctrinal analysis of relevant legal cases. Two hypotheses based on these conditions are derived from the management and enforcement approaches,<sup>7</sup> which serve as the theoretical foundation for this article. Next, the concept structural foundations of implementation are elaborated as a research methodology, resulting in the development and discussion of the formalised concept structure. The article concludes by describing the implications for empirical analysis. The article advances research on environmental conflict resolution by outlining a concept structural approach to effective implementation of court judgments and managerial decisions. This research also feeds into other disciplines by enabling empirical comparisons across resolution mechanisms and governance levels, thus facilitating a different way to think critically about European and international decisions from a multilevel perspective.

## 2 CONTEXTUALISING ENVIRONMENTAL CONFLICT RESOLUTION

### 2.1 RESEARCH CONTEXT

To account for different disciplinary perspectives relevant to this article, this section references literature from various strands of political science research as well as legal

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<sup>5</sup> *Set theoretic multimethod research* describes the combination of two empirical research methods, namely Qualitative Comparative Analysis (QCA), a case-based method based on set theory and formal logic, and qualitative case studies; see Gary Goertz and James Mahoney, *A Tale of Two Cultures. Qualitative and Quantitative Research in the Social Sciences* (Princeton University Press); Carsten Q Schneider and Ingo Rohlfing, 'Set-Theoretic Multimethod Research: The Role of Test Corridors and Conjunctions for Case Selection' (2019) 25(3) *Swiss Political Science Review* 253.

<sup>6</sup> Andreas Corcaci, 'Conceptual considerations on compliance in the European Union' in Roland Lhotta, Oliver W Lembcke, and Verena Frick (eds), *Politik und Recht: Umriss eines politikwissenschaftlichen Forschungsfeldes* (Nomos Verlagsgesellschaft 2017); Corcaci, *Compliance in der EU* (n 4).

<sup>7</sup> Jonas Tallberg, 'Paths to Compliance: Enforcement, Management, and the European Union' (2002) 56(3) *International Organization* 609.

contributions relevant to the article's concepts and conditions. Additionally, an integrated trans-disciplinary terminology is being proposed (see *Table 1*).

**Table 1:** Integrated research terminology

Term	Meaning
Court judgment	Judgment of a European or international court or tribunal, legally binding
Managerial decision	Result/outcome of a non-compliance mechanism or procedure in multilateral environmental agreements, cooperative and not confrontational/punitive
Non-compliance mechanism	Non-confrontational, managerial procedure designed to address compliance issues, usually operated within multilateral environmental agreements
Resolution mechanisms	Umbrella term describing different procedures to resolve implementation issues: judgments from courts and managerial decisions from non-compliance mechanisms
Implementation (of a legal act)	Overarching process of putting a legal obligation into effect, conceptually includes transposition of a European or international legal act into national law, establishment of administrative structures and procedures, and practical application of the legal act
Transposition (of a legal act)	Incorporation of a European or international legal obligation into national law
Administration (of a legal act)	Establishment of administrative structures and/or processes required to apply a transposed legal act in practice
Application (of a legal act)	Practical operation of a legal obligation (as opposed to mere formal transposition without practical application)

*Source: author's illustration*

Research on the implementation of environmental policy and law and especially the transposition of directives in the EU has made significant progress since the 1990s. However, systematic insights into the implementation of court judgments and managerial decisions on environmental conflicts beyond the nation state are lacking, as is generalisable knowledge valid across different types of resolution mechanisms. The article will address this limitation in the literature starting from the observation that compliance with international obligations 'requires nuanced measures which can be adapted to different conditions and changing circumstances'<sup>8</sup> and takes place under various structural, procedural, and context conditions that concern different levels of governance.<sup>9</sup> National legal frameworks are often dense, whereas European law implies its own unique implementation setting<sup>10</sup> and the

<sup>8</sup> Edith Brown Weiss, 'Understanding Compliance with International Environmental Agreements: The Baker's Dozen Myths' (1998) 32(5) *University of Richmond Law Review* 1555, 1589.

<sup>9</sup> For an overview, see Oliver Treib, 'Implementing and complying with EU governance outputs' (2014) 9(1) *Living Reviews in European Governance*.

<sup>10</sup> Corcaci, 'Conceptual considerations' (n 6).

Europeanisation of (sub-)national institutions.<sup>11</sup> Both national and the European court systems are integrated and institutionalised,<sup>12</sup> while EU governance can be characterised as judicialized.<sup>13</sup> In contrast, the implementation of international legal obligations is complex due to the sovereignty of contracting states<sup>14</sup> and the resulting differences between European and international levels.<sup>15</sup> Even more so, the underlying multilevel nature implies complex compliance dynamics between the international, European, and national levels, with uncertainty and problems arising because of the discretion that international and European law leaves to the implementing nation states.<sup>16</sup> This in turn can cause challenges for international courts and the states concerned in using various resolution mechanisms for effectively enforcing, managing, and sanctioning infringements.<sup>17</sup>

Effective enforcement goes hand in hand with how nation states perceive the institutional and procedural legitimacy of international courts, tribunals, and multilateral agreements.<sup>18</sup> Additional complexity arises because international environmental law and policy<sup>19</sup> are often tied to the international diplomacy of climate change. This also applies to International Courts and Tribunals (ICTs) the more they engage with the environment.<sup>20</sup> Finally, the proliferation of environmental courts and tribunals (ECTs)<sup>21</sup> at the regional and national levels has not spilled over to the European and international arenas, where no

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<sup>11</sup> Peter Bursens, 'Europeanization and Sub-National Authorities' in Simon Bulmer and Christian Lequesne (eds), *The Member States of the European Union* (Oxford University Press 2020).

<sup>12</sup> Rachel A Cichowski, 'Overview of institutionalization in the European Union' in Rachel A Cichowski, *The European Court and Civil Society: Litigation, Mobilization and Governance* (Cambridge University Press 2007).

<sup>13</sup> Alec Stone Sweet, 'The European Court of Justice and the judicialization of EU governance' (2019) 5(2) *Living Reviews in European Governance*.

<sup>14</sup> Karen J Alter, Laurence R Helfer, and Mikael R Madsen, *International Court Authority* (Oxford University Press 2018).

<sup>15</sup> Katja S Ziegler, 'The Relationship between EU Law and International Law' in Dennis Patterson and Anna Södersten (eds), *A Companion to European Union Law and International Law* (Wiley Blackwell 2016).

<sup>16</sup> Corcaci, *Compliance in der EU* (n 4); Andreas Corcaci, 'The Dynamics of multilevel administration. Empirical insights from national, supra- and international administrations in energy policy' (2022) *Zeitschrift für Politikwissenschaft/Journal of Political Science*.

<sup>17</sup> For courts: Andreas Føllesdal and Geir Ulfstein (eds), *The Judicialization of International Law - a Mixed Blessing?* (Oxford University Press 2018); for MEAs: Anna Huggins, *Multilateral Environmental Agreements and Compliance. The Benefits of Administrative Procedures* (Routledge 2018).

<sup>18</sup> Andreas Føllesdal, 'Survey Article: The Legitimacy of International Courts' (2020) 28(4) *The Journal of Political Philosophy* 476; Christopher Lord, Peter Bursens, Dirk De Bièvre, Jarle Trondal, and Ramses A Wessel (eds), *The Politics of Legitimation in the European Union. Legitimacy Recovered?* (Routledge 2022).

<sup>19</sup> David Hunter, James Salzman, and Durwood Zelke, *International Environmental Law and Policy* (6th edn, Foundation Press 2022); Lavanya Rajamani and Jacqueline Peel (eds), *The Oxford Handbook of International Environmental Law* (2nd edn, Oxford University Press 2021); Thomas J Schoenbaum and Michael K Young, *International Environmental Law and Policy. Cases, Materials, and Problems* (3rd edn, Carolina Academic Press 2018); Erika Techera, Jade Lindley, Karen N Scott, and Anastasia Telesetsky (eds), *Routledge Handbook of International Environmental Law* (2nd edn, Routledge 2020).

<sup>20</sup> Stuart Bruce, 'The Project for an International Environmental Court' in Christian Tomuschat, Riccardo Pisillo Mazzeschi, and Daniel Thürer (eds), *Conciliation in International Law. The OSCE Court of Conciliation and Arbitration* (Brill Nijhoff 2017); Edgardo Sobenes, Sarah Mead, and Benjamin Samson (eds), *The Environment Through the Lens of International Courts and Tribunals* (T.M.C. Asser Press 2022); Tim Stephens, *International courts and environmental protection* (Cambridge University Press 2009).

<sup>21</sup> Brian J Preston, 'Characteristics of Successful Environmental Courts and Tribunals' (2014) 26(3) *Journal of Environmental Law* 365; Don C Smith, 'Environmental courts and tribunals: changing environmental and natural resources law around the globe' (2018) 36(2) *Journal of Energy & Natural Resources Law* 137; Ceri Warnock, 'Reconceptualising specialist environment courts and tribunals' (2017) 37(3) *Legal Studies* 391.

specialised court exists despite a multitude of legal documents<sup>22</sup> and calls for an International Environmental Court<sup>23</sup> including by the ICE Coalition.<sup>24</sup> Environmental conflicts are therefore addressed in general courts like the CJEU and the International Court of Justice (ICJ); environmental contexts like the ITLOS and multilateral agreements, for example the Basel and Rotterdam Conventions on hazardous waste and chemicals; but also courts and tribunals in trade, investment, and human rights where environmental issues play an increasing role, like the European Court of Human Rights (ECtHR) or the World Trade Organization (WTO).

## 2.2 POLICY IMPLEMENTATION IN THE EU

Insights from earlier work on the implementation of EU environmental and social policy<sup>25</sup> and other recent contributions in this field serve as a starting point for this article. Political science research in this area has shifted focus from mere legal transposition to opening the ‘black box’ of implementation and ‘differentiated implementation’.<sup>26</sup> This approach is derived from the idea of differentiated integration<sup>27</sup> and seeks to understand differences in the practice of implementation processes and outcomes.<sup>28</sup> Studies in this context assess ‘gold plating’,<sup>29</sup> practical performance of implementation,<sup>30</sup> and how customised domestic

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<sup>22</sup> David Hunter, James Salzman, and Durwood Zelke, *International Environmental Law and Policy. Treaty Supplement* (2022 edn, Foundation Press 2022); Philippe Sands and Paolo Galizzi, *Documents in International Environmental Law* (Cambridge University Press 2004); Thomas J. Schoenbaum and Michael K Young, *International Environmental Law and Policy. Cases, Materials, and Problems. Document Supplement* (3rd edn, Carolina Academic Press 2018).

<sup>23</sup> Alessandra Lehmen, ‘The Case for the Creation of an International Environmental Court: Non-State Actors and International Environmental Dispute Resolution’ (2015) 16(2) *Colorado Natural Resources, Energy & Environmental Law Review* 179; Ole W Pedersen, ‘An International Environmental Court and International Legalism’ (2012) 24(3) *Journal of Environmental Law* 547; George W Pring and Catherine Pring, *Greening Justice: Creating and Improving Environmental Courts and Tribunals* (The Access Initiative 2009); George W Pring and Catherine Pring, *Environmental Courts & Tribunals. A Guide for Policy Makers* (UN Environment 2016); Alexandr M. Solntsev, ‘The International Environmental Court – A Necessary Institution for Sustainable Planetary Governance in the Anthropocene’ in Michelle Lim (ed), *Charting Environmental Law Futures in the Anthropocene* (Springer 2019).

<sup>24</sup> ICE Coalition <<https://www.icecoalition.org>> accessed 10 December 2023.

<sup>25</sup> Corcaci, ‘Conceptual considerations’ (n 6); Corcaci, *Compliance in der EU* (n 4).

<sup>26</sup> Simon Fink and Eva Ruffing, ‘The Differentiated Implementation of European Participation Rules in Energy Infrastructure Planning: Why Does the German Participation Regime Exceed European Requirements?’ (2017) 3(2) *European Policy Analysis* 274.

<sup>27</sup> Hellen Wallace, ‘Differentiated integration’ in Desmond Dinan (ed), *Encyclopedia of the European Union* (Lynne Rienner 2000); Dirk Leuffen, Berthold Rittberger, and Frank Schimmelfennig, *Integration and Differentiation in the European Union. Theory and Policies* (Palgrave Macmillan 2022).

<sup>28</sup> See already Gerda Falkner, Oliver Treib, Miriam Hartlapp, and Simone Leiber, *Complying with Europe: EU Harmonisation and Soft Law in the Member States* (Cambridge University Press 2005); Esther Versluis, ‘Even Rules, Uneven Practices: Opening the “black box” of EU law in action’ (2007) 30(1) *West European Politics* 50.

<sup>29</sup> Jan H Jans, Lorenzo Squintani, Alexandra Aragão, Richard Macrory, and Bernhard W Wegener, ‘“Gold plating” of European Environmental Measures?’ (2009) 6(4) *Journal of European Environmental & Planning Law* 417.

<sup>30</sup> Asya Zhelyazkova, Cansarp Kaya, and Reini Schrama, ‘Decoupling practical and legal compliance: Analysis of member states’ implementation of EU policy’ (2016) 55(4) *European Journal of Political Research* 827; Elena Bondarouk and Ellen Mastenbroek, ‘Reconsidering EU Compliance: Implementation performance in the field of environmental policy’ (2018) 28(1) *Environmental Policy and Governance* 15.

approaches (for example, rule density and requirement strictness)<sup>31</sup> influence practical application.<sup>32</sup> Similarly, other studies assess local implementation performance through political and managerial approaches<sup>33</sup> or analyse the involvement of supranational actors, such as agencies and the Commission in the implementation of EU laws.<sup>34</sup> More broadly, the article also draws on basic insights from judicial politics and governance,<sup>35</sup> legal studies on environmental adjudication<sup>36</sup> and dispute prevention<sup>37</sup>.

This article builds on such perspectives by extracting related factors from the political science literature and subsequently deriving six macro-level conditions that account for effective implementation:

- favourable attitudes of relevant actors, especially the government in charge;
- favourable political, legal, administrative traditions, including legitimacy of institutions;
- compatible institutions, especially relevant structures in the policy field;
- compatible capacities, especially relevant administrative-regulatory capacities;
- compatible policies, especially characteristics of the legal act at hand;
- extensive enforcement, especially the possibility of issuing enforceable fines.

The political science literature on compliance with and implementation of international arrangements<sup>38</sup> and especially in the EU<sup>39</sup> illustrates that a multitude of factors can be relevant for implementing legal acts nationally. It is argued here that the national transposition and application of environmental directives in the EU can be explained through various configurations of six macro-level conditions, each an aggregate consisting of

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<sup>31</sup> Zhelyazkova and Thomann empirically show that implementing more rules nationally than required by EU directives (quantitative customisation) reduces practical compliance with EU law, while using stricter requirements and more stringent regulations than prescribed in EU directives (qualitative customisation) improves practical compliance. Asya Zhelyazkova and Eva Thomann, “I did it my way”: customisation and practical compliance with EU policies’ (2021) 29(3) *Journal of European Public Policy* 427, 427-28.

<sup>32</sup> Zhelyazkova and Thomann (n 31).

<sup>33</sup> Elena Bondarouk, Duncan Lieferrink, and Ellen Mastenbroek, ‘Politics or management? Analysing differences in local implementation performance of the EU Ambient Air Quality directive’ (2020) 40(3) *Journal of Public Policy* 449.

<sup>34</sup> Marta Migliorati, ‘Where does implementation lie? Assessing the determinants of delegation and discretion in post-Maastricht European Union’ (2021) 41(3) *Journal of Public Policy* 489.

<sup>35</sup> Lisa J Conant, *Justice contained. Law and Politics in the European Union* (Cornell University Press 2002); Patricia Popelier, Monika Glavina, Federica Baldan, and Esther Van Zimmerman, ‘A research agenda for trust and distrust in a multilevel judicial system’ (2022) 29(3) *Maastricht Journal of European and Comparative Law* 351; Smith (n 21).

<sup>36</sup> Antonio Cardesa-Salzmann, ‘Reflections on International Environmental Adjudication: International Adjudication Versus Compliance Mechanisms in Multilateral Environmental Agreements’ in Edgardo Sobenes, Sarah Mead, and Benjamin Samson (eds) *The Environment Through the Lens of International Courts and Tribunals* (T.M.C. Asser Press 2022); Emma Lees and Ole W Pedersen, *Environmental Adjudication* (Hart Publishing 2020); Ceri Warnock and Ole W Pedersen, ‘Environmental Adjudication: Mapping the Spectrum and Identifying the Fulcrum’ (2017) N°4/2017 *Public Law* 643.

<sup>37</sup> Natalie Klein and Danielle Kroon, ‘Settlement of international environmental law disputes’ in Malgosia Fitzmaurice, Marcel Brus, and Panos Merkouris (eds), *Research Handbook on International Environmental Law* (2nd edn, Edward Elgar 2021); Gerhard Loibl, *Dispute Avoidance and Dispute Settlement in International Environmental Law – Some Reflections on Recent Developments* (Organisation of American States, XXIV Curso de Derecho Internacional 1997); Philippe Sands, Jacqueline Peel, Adriana Fabra, and Ruth MacKenzie, ‘Compliance: implementation, enforcement, dispute settlement’ in Philippe Sands, Jacqueline Peel, Adriana Fabra, and Ruth MacKenzie (eds), *Principles of International Environmental Law* (Cambridge University Press 2018).

<sup>38</sup> Corcaci, *Compliance in der EU* (n 4) 17-22.

<sup>39</sup> *ibid* 48-70.

different but related factors from the literature. The factors can be grouped into three categories – actor, structure, and (implementation) context – with two conditions each.<sup>40</sup> The actor category consists, first, of actors’ attitudes and other related factors, which are important within the literature because they fundamentally contribute to the very decision whether and how EU law and legal decisions are implemented domestically.<sup>41</sup> Favourable preferences of political actors (governments and third parties), low domestic political conflict, and favourable political priorities of governments can be conceptualised as the main sub-categories (‘attributes’) of the condition *favourable attitudes*. Second, traditions play a considerable albeit diffuse role for the handling of EU law.<sup>42</sup> The most obvious aspects of the condition *favourable traditions* are administrative, legal, and political traditions. In this context, the legitimacy of institutions, procedures, and actors involved in implementation processes can be considered part of favourable political traditions.

The third condition, *compatible institutions*, belongs to the structure category and contains institutional aspects of implementation.<sup>43</sup> Structural features of the Member States and their influence on implementation constitute the first meso-level attribute of this condition (compatible state structure). The second attribute addresses the specific regulatory structure of a policy area affected in the implementing country (compatible regulatory structure). A fourth condition relates to different capacities needed to implement environmental law, conceptualised as *compatible capacities*.<sup>44</sup> Beside financial and human resources of administrative institutions, this also includes resources of societal actors and interest groups including their ability to mobilise (extensive resources). Moreover, a compatible regulatory style within the policy sector in question is part of this condition, referring to predominantly administrative patterns of acting on implementation issues and ways of interacting with societal or other third-party actors, including their involvement in the process.<sup>45</sup>

The fifth condition, *compatible policies*, is part of the context category and contains attributes that relate to the legal act in hand. One is the influence of specific characteristics of a policy that requires adaptation on the transposition process (compatible legal act features). Another attribute is the compatible domestic context of existing policies and practices affected by European legislation.<sup>46</sup> Finally, the sixth condition is part of the explanatory pattern *extensive enforcement*. It occupies a peculiar position compared to the other conditions, because not only does it constitute a potential explanation for implementation, but also one of the main phases of the implementation process,<sup>47</sup> albeit an optional one.

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<sup>40</sup> *ibid* 47.

<sup>41</sup> Ellen Mastenbroek and Michael Kaeding, ‘Europeanization beyond the goodness of fit: Domestic politics in the forefront’ (2006) 4(4) *Comparative European Politics* 331.

<sup>42</sup> Falkner et al (n 28); Gerda Falkner and Oliver Treib, ‘Three Worlds of Compliance or Four? The EU-15 Compared to New Member States’ (2008) 46(2) *Journal of Common Market Studies* 293.

<sup>43</sup> Giuseppe Ciavarini Azzi, ‘The slow march of European legislation: The implementation of directives’ in Karlheinz Neunreither and Antje Wiener (eds), *European Integration After Amsterdam: Institutional Dynamics and Prospects for Democracy* (Oxford University Press 2000).

<sup>44</sup> Ulf Sverdrup, ‘Compliance and Conflict Management in the European Union: Nordic Exceptionalism’ (2004) 27(1) *Scandinavian Political Studies* 23.

<sup>45</sup> Thomas König and Brooke Luetgert, ‘Troubles with Transposition? Explaining Trends in Member-State Notification and the Delayed Transposition of EU Directives’ (2009) 39(1) *British Journal of Political Science* 163.

<sup>46</sup> Tanja A Börzel and Thomas Risse, ‘Conceptualizing the Domestic Impact of Europe’ in Kevin Featherstone and Claudio M Radaelli (eds), *The Politics of Europeanization* (Oxford University Press 2003).

<sup>47</sup> Corcaci, ‘Conceptual considerations’ (n 6) 494-96.



Enforcement can be conceptualised as extensive infringement pressure and, in the EU context, aims at the Commission's possibilities to make Member States comply with EU law.<sup>48</sup> This refers to monitoring, (financial or knowledge-based) assistance from European institutions, the informal EU Pilot mechanism for informal dialogue between the Commission and the Member States, and the formal infringement procedure. The latter can be divided into a pre-litigation phase with a letter of formal notice and a reasoned opinion, and a litigation phase with referrals to the CJEU and a subsequent judgment including a lump-sum and/or a daily penalty payment (and in case of further non-compliance, a second letter of formal notice and proceedings before the CJEU). In contrast, the attribute 'extensive domestic enforcement' alludes to ensuring administrative implementation and practical application of transposed EU law by national enforcement institutions.<sup>49</sup>

Crucially, these conditions can be mapped onto two traditional theoretical perspectives that have been referenced frequently in the political science literature on implementation and compliance and provide an additional layer of theoretical foundation: the *management* and *enforcement approaches*.<sup>50</sup> They emanated from rationalist arguments in political economy<sup>51</sup> to highlight national capacities given willingness to comply (management), or the need to enforce compliance against national unwillingness (enforcement). Based on these theoretical perspectives and previous insights, the article conceptualises three conditions and apply them to environmental conflict resolution through two distinct *explanatory paths*, mirroring the two approaches. Both paths include either *positive* or *negative actor preferences* towards the policy and case at hand. Preferences have been widely shown to play an important role in processes of implementation<sup>52</sup> and are theoretically expected to occur in conjunction with other conditions to explain effective implementation, which is the focus in this article.

### 3 CONDITIONS FOR EFFECTIVE IMPLEMENTATION

#### 3.1 LEGITIMACY OF CONFLICT RESOLUTION

First, the *perceived legitimacy*<sup>53</sup> of supra- and international institutions and procedures of conflict resolution (ICTs, implementation and compliance committees of MEAs), including resulting acts of contestation, has been proposed as an essential condition for national

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<sup>48</sup> Mariasverd Mendrinou, 'Non-Compliance and the European Commission's Role in Integration' (1996) 3(1) *Journal of European Public Policy* 1.

<sup>49</sup> Karen J Alter, 'The European Union's Legal System and Domestic Policy: Spillover or Backlash?' (2000) 54(3) *International Organization* 489.

<sup>50</sup> Tallberg (n 7).

<sup>51</sup> Abram Chayes and Antonia Handler Chayes, 'On compliance' (1993) 47(2) *International Organization* 175.

<sup>52</sup> Peter Bursens and Kristof Geeraerts, 'EU Environmental Policy-Making in Belgium: Who Keeps the Gate?' (2006) 28(2) *Journal of European Integration* 159; Mastenbroek and Kaeding (n 41); Dimiter Toshkov, 'Embracing European Law' (2008) 9(3) *European Union Politics* 379; Treib (n 9); Corcaci *Compliance in der EU* (n 4).

<sup>53</sup> While legitimacy is commonly conceptualised as *normative* legitimacy in legal scholarship, i.e., based on predefined legal criteria (see Føllesdal (n 18) 480), this article follows a political science perspective that views legitimacy in the eyes of the beholder, i.e., based on actors' beliefs and perceptions (called *descriptive* legitimacy by Føllesdal, see below for more details).

implementation.<sup>54</sup> In case of high perceived legitimacy and without excluding alternative explanations, it is expected based on the *management approach* that implementation occurs when the relevant actors (especially the government and competent administrators, but also other influential political actors) have positive preferences about the decision at hand. Extending the argument by Tallberg and Zürn<sup>55</sup> on international organizations, legitimacy can influence the ability of resolution mechanisms to facilitate effective implementation and compliance, and it is thought of as a less costly path to achieving this goal than coercive measures. Indeed, '[e]vidence from a broad range of regulatory domains and levels suggests that legitimacy contributes to compliance, even when adjustment costs are high',<sup>56</sup> while its lack can negatively influence the acceptance of international rules and the underlying institutions.

ICTs can be thought of as a set of institutions (among others) which through their function as arbitrators have contributed to the interruption of the 'state of nature' at the international level.<sup>57</sup> Through their authority,<sup>58</sup> ICTs exert influence on war and peace, human rights, investment and trade, harmonisation of law, but they also can 'usurp law-making power or perpetuate global injustice and domination'.<sup>59</sup> However, exercising authority comes with certain requirements, especially the consent of nation states, acceptance of judgments and other decisions, as well as preventing states to exit ICTs' jurisdiction. Legitimacy is distinct from but related to authority as 'a relational property, determined by the beliefs and perceptions of audiences about the exercise of authority'.<sup>60</sup> Crucially, legitimacy implies accepting the authority of institutions such as European and international courts, even if individual decisions conflict with the 'narrow self-interest' of affected parties.<sup>61</sup> This approach can be combined with the three types (or: dimensions) of democratic legitimacy according to Schmidt:<sup>62</sup> *input, throughput, and output legitimacy*.<sup>63</sup> While not identical, a connection can be made with the three clusters of criticisms of legitimacy that Føllesdal describes<sup>64</sup> based on the concept of legitimate authority:<sup>65</sup> the origin of ICTs as institutions

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<sup>54</sup> Daniel Bodansky, 'The legitimacy of international governance: A coming challenge for international environmental law?' (1999) 93(3) *American Journal of International Law* 596; Føllesdal (n 18); Jonas Tallberg and Michael Zürn, 'The legitimacy and legitimation of international organizations: introduction and framework' (2019) 14(4) *The Review of International Organizations* 581; Christina Voigt (ed), *International Judicial Practice on the Environment. Questions of Legitimacy* (Cambridge University Press 2019).

<sup>55</sup> Tallberg and Zürn (n 54) 582.

<sup>56</sup> *ibid.*

<sup>57</sup> Føllesdal (n 18) 476.

<sup>58</sup> One possible understanding of authority 'refers to the recognition that an institution has the right to make decisions and interpretations within a particular area'. Tallberg and Zürn (n 54) 586.

<sup>59</sup> *ibid.*

<sup>60</sup> *ibid.*

<sup>61</sup> *ibid.* 587.

<sup>62</sup> Vivien A Schmidt, *Europe's Crisis of Legitimacy: Governing by Rules and Ruling by Numbers in the Eurozone* (Oxford University Press 2020); building on Fritz W Scharpf, 'Economic integration, democracy and the welfare state' (1997) 4(1) *Journal of European Public Policy* 18; Fritz W Scharpf, *Governing in Europe: effective and democratic?* (Oxford University Press 1999).

<sup>63</sup> See also Tallberg and Zürn (n 54) 593-95 for a similar account.

<sup>64</sup> Føllesdal (n 18) 481-90.

<sup>65</sup> Joseph Raz, *The Morality of Freedom* (Clarendon Press 1986); see Richard Collins, 'Consent, Obligation and the Legitimate Authority of International Law' in Patrick Capps and Henrik P Olsen (eds), *Legal Authority beyond the State* (Cambridge University Press 2018); Tallberg and Zürn (n 54) 593-94. More concretely, Føllesdal argues that the various criticisms of ICTs' legitimacy can be reconstructed as putting their legitimate authority into question. Føllesdal (n 18) 477.

and state consent (indirectly linked to input legitimacy),<sup>66</sup> the appropriateness of their procedures (throughput legitimacy), and concerns about their effects and decisions (output legitimacy). Specifically, this includes the institutions themselves, for example the origins of investment tribunals or recent challenges of the International Criminal Court (input); the underlying procedures, including process-related challenges of how the CJEU interprets European treaties (throughput); and criticism of specific judgments and other decisions, for example regarding WTO bodies, the ITLOS, or judgments by the ECtHR (output).<sup>67</sup>

Implementation and compliance are affected by perceived legitimacy or what Føllesdal calls *descriptive* legitimacy, i.e., ‘social facts concerning actors’ beliefs about the legitimate authority’<sup>68</sup> (i.e., *normative* legitimacy) of ICTs. This is because such beliefs may facilitate implementation by providing additional arguments for the implementing parties or ‘diffuse support’ for ICTs even if the affected parties disagree with their legal interpretations or decisions, thus exerting a *normative compliance pull*.<sup>69</sup> Because non-compliance can affect how others perceive the legitimacy of ICTs, newly established institutions may tread carefully in the beginning, engaging in the so-called ‘economy of legitimacy’<sup>70</sup> to build a positive reputation and thus their descriptive legitimacy. Lastly, compliance and implementation can go beyond beliefs and influence the normative legitimacy of ICTs either positively, compelling other states to defer their judgments decisions, or negatively by eroding legitimate authority of ICTs when their decisions are not widely followed.<sup>71</sup>

Beside general considerations on input, throughput, and output legitimacy, obligations related to *legal principles* are of relevance for the implementation of decisions in international environmental law. This field has produced a considerable number of new arrangements, rules, and obligations placed on nation states, which in turn affects its legitimacy and that of related institutions and resolution mechanisms. In this context, the obligation to apply the principles of precaution and prevention can be considered essential, the latter of which can be found in many MEAs and courts like the ITLOS have also incorporated it.<sup>72</sup> It implies that states have duties to ‘prevent, reduce, and control transboundary pollution and environmental harm resulting from activities within their jurisdiction or control’, but also to ‘cooperate in mitigating transboundary environmental risks and emergencies’.<sup>73</sup> Debates on the precautionary approach and principle have also re-emerged in recent years based on an

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<sup>66</sup> In contrast to throughput and output legitimacy, the link between input legitimacy and state consent to ICTs is weak because input legitimacy commonly refers to (citizens’) political participation and representation in institutions. Schmidt (n 62) 31-32. One could argue that states provide at least indirect representation of their citizens when they negotiate treaties underlying ICTs and consent to their jurisdictions, although this is problematic in the case of authoritarian governments. Føllesdal (n 18) 482.

<sup>67</sup> Føllesdal (n 18) 476-77.

<sup>68</sup> *ibid* 480.

<sup>69</sup> Thomas M Franck, *The Power of Legitimacy among Nations* (Oxford University Press 1990) 24.

<sup>70</sup> Clifford J Carruba, ‘A model of the endogenous development of judicial institutions in federal and international systems’ (2009) 71(1) *Journal of Politics* 55.

<sup>71</sup> Føllesdal (n 18) 481.

<sup>72</sup> Malgosia Fitzmaurice, ‘Legitimacy of International Environmental Law. The Sovereign States Overwhelmed by Obligations: Responsibility to React to Problems Beyond National Jurisdiction?’ (2017) 77 *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht* 339, 342-44; see Leslie-Anne Duvic-Paoli, ‘Principle of Prevention’ in Ludwig Krämer and Emanuela Orlando (eds), *Principles of Environmental Law* (Elgar Encyclopedia of Environmental Law series Vol. VI, Edward Elgar 2018).

<sup>73</sup> Alan Boyle and Catherine Redgwell, *Birnie, Boyle & Redgwell’s International Law and the Environment* (4th edn, Oxford University Press 2021) 152-53.

ongoing discussion about its relevance.<sup>74</sup> It roughly states that measures to prevent the degradation of environmental damages should not be postponed based on incomplete scientific certainty, thus promoting precaution.<sup>75</sup> This means that nation states should actively take measures to prevent negative consequences of their activities on the environment and human health, even if scientific evidence on the long-term risks of such activities is not yet well-established. Despite placing significant burdens and obligations on nation states, the principle has been adopted as part of various MEAs including the Stockholm Convention and the Cartagena Protocol, but also by the ITLOS.<sup>76</sup> The precautionary principle and approach have been controversially discussed<sup>77</sup> and criticism directed for example at strong interpretations that imply a burden of proof on states creating environmental risks and the regulation of related activities that could potentially cause harm.<sup>78</sup>

Despite having developed ‘through a consensual rather than an authoritative process’,<sup>79</sup> the obligations resulting from basic legal principles in international environmental law do not always conform to this consensual perspective. For example, Fitzmaurice argues<sup>80</sup> that the precautionary principle has been introduced through authoritative processes, in the case of MEAs by their decision-making bodies. While obligations placed on nation states without their consent might therefore not be considered a legitimate basis for international environmental law, such a perspective does not negate the legitimacy of conflict resolution mechanisms beyond the nation state in general. Instead, it highlights both the political and legal complexity of legitimacy in this field. These observations implicitly support the theorised link between high (perceived) legitimacy of resolution mechanisms and positive actor preferences towards decisions. It remains to be seen whether the expected link is upheld empirically, or instead low perceived legitimacy combine with negative preferences in case of unduly burdens.

### 3.2 STRENGTH OF RESOLUTION MECHANISMS

Second, the sanctioning measures available to resolution mechanisms, such as supra- and international courts and non-compliance mechanisms and procedures, have been discussed as an essential condition of effective national implementation.<sup>81</sup> Without excluding

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<sup>74</sup> Jonathan B Wiener, ‘Precautionary principle’ in Ludwig Krämer and Emanuela Orlando (eds), *Principles of Environmental Law* (Elgar Encyclopedia of Environmental Law series Vol. VI, Edward Elgar 2018) 174-85; see Cass R Sunstein, *Averting Catastrophe. Decision Theory for COVID-19, Climate Change, and Potential Disasters of All Kinds* (New York University Press 2021) 43-60.

<sup>75</sup> *ibid* 43.

<sup>76</sup> Fitzmaurice (n 72) 356-58.

<sup>77</sup> Sven Ove Hansson, ‘How Extreme Is the Precautionary Principle?’ (2020) 14(3) *NanoEthics* 245.

<sup>78</sup> Kristel De Smedt and Ellen Vos, ‘The Application of the Precautionary Principle in the EU’ in Harald A Mieg (ed), *The Responsibility of Science* (Springer 2022); see already Cass R Sunstein, *Laws of Fear. Beyond the Precautionary Principle* (Cambridge University Press 2005).

<sup>79</sup> Bodansky, *The legitimacy* (n 54) 604.

<sup>80</sup> Fitzmaurice (n 72) 366-68.

<sup>81</sup> Anna Gizari-Xanthopoulou and Dimitra Manou, ‘Complying with and enforcing of environmental law: a critical appraisal of the mechanisms used at the international and the European level’ (2014) 13(3) *International Journal of Environment and Sustainable Development* 239; Martin Hedemann-Robinson, *Enforcement of International Environmental Law. Challenges and Responses at the International Level* (Routledge 2019); Tullio Treves, Attila Tanzi, Cesare Pitea, Chiara Ragni, and Laura Pineschi (eds), *Non-Compliance Procedures and Mechanisms and*

alternatives, it is expected that based on the *enforcement approach* resolution mechanisms with strong sanctioning mechanisms facilitate national implementation in conjunction with negative actor preferences towards the case at hand. Yet, especially legal scholars increasingly focus on NCMs when investigating MEAs.<sup>82</sup> Such mechanisms are often set up within the framework of MEAs to facilitate cooperation of the parties involved in conflicts, which can be vital to enforcing the working-level implementation of decisions. International environmental regulation can be characterised by structural deficits regarding its implementation.<sup>83</sup> MEAs have reacted to this perceived deficit by developing ‘a *sui generis* type of compliance mechanisms’<sup>84</sup> to address implementation problems against the background of treaty law without dedicated dispute settlement institutions. These mechanisms have been described as *managerial*<sup>85</sup> and are usually non-confrontational, relying on cooperation between the dispute parties for success because they do not involve strong sanctioning measures.<sup>86</sup>

They subsequently open the door for what is called here *cooperative differentiation* due to the flexibility of the underlying process and lack of external sanctions, which would minimise or even penalise any attempts to adapt legal requirements (here: obligations resulting from environmental treaties) to national circumstances. Beside the aspects of intergenerational impact and justice,<sup>87</sup> one of the crucial issues in the context of environmental conflicts is the difficulty of identifying the party who is affected by a specific act of non-implementation and to specify the damages caused and tie them to the non-implementing party.<sup>88</sup> In the absence of specialised supra- and international ECTs, countries affected by environmental damages may thus engage what can be called *confrontational differentiation* because the complexity of environmental law facilitates processes of fragmentation. Affected parties can subsequently make use of ‘forum shopping’<sup>89</sup> by splitting up their claims in several parts and use different dispute settlement bodies for each part to maximise their chances of success in achieving their goals.

Both European and international environmental law may be especially suited to replace strict formal adjudication with more collaborative mechanisms to resolve disputes. The effectiveness of traditional enforcement and adjudicative dispute resolution has indeed been

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*the Effectiveness of International Environmental Agreements* (I.M.C. Asser Press 2009); Christina Voigt and Caroline Foster (eds), *International Courts versus Non-Compliance Mechanisms. Comparative Advantages in Strengthening Treaty Implementation* (forthcoming, Cambridge University Press 2024).

<sup>82</sup> Cardesa-Salzmänn (n 36); Joyeeta Gupta, Courtney Vegelin, and Nicky Pouw, ‘Lessons learnt from international environmental agreements for the Stockholm + 50 Conference: celebrating 20 Years of INEA’ (2022) 22(2) *International Environmental Agreements: Politics, Law and Economics* 229; Gerhard Loibl, ‘Compliance procedures and mechanisms’ in Malgosia Fitzmaurice, Marcel Brus, and Panos Merkouris (eds), *Research Handbook on International Environmental Law* (2nd edn, Edward Elgar 2021).

<sup>83</sup> Cardesa-Salzmänn (n 36) 586.

<sup>84</sup> *ibid* 587.

<sup>85</sup> *ibid*.

<sup>86</sup> Hedemann-Robinson (n 81) 44.

<sup>87</sup> Brunilda Pali, Miranda Forsyth, and Felicity Tepper (eds), *The Palgrave Handbook of Environmental Restorative Justice* (Palgrave Macmillan 2022).

<sup>88</sup> Cardesa-Salzmänn (n 36) 587.

<sup>89</sup> *ibid* 588.

questioned in the relevant literature for some time.<sup>90</sup> Chayes and Handler Chayes argue<sup>91</sup> that adjudication does not account for the complexity and dynamic nature of environmental issues and instead call for a cooperative approach to solving disputes. In contrast to traditional economic approaches, management emphasises consultation and deliberation between the conflict parties based on a commitment to maintaining the underlying legal agreement, instead of referring to strict enforcement of certain obligations perceived to be broken by the other party.<sup>92</sup> Such approaches also criticise the slow process of traditional adjudication because of imminent danger of environmental damages that cannot be undone through such sanctioning mechanisms. Managerialist debates in academia and practice have actively influenced the practical establishment of various soft non-compliance mechanisms in MEAs, including Montreal Protocol on Ozone Depleting Substances.<sup>93</sup> Many environmental treaties have adapted similar NCMs since, for example United Nations treaties like the Basel and Rotterdam Conventions which, together with the Stockholm Convention on Persistent Organic Pollutants, are administered under the United Nations Environment Programme (UNEP). Conversely, the Conference of the Parties to the Stockholm Convention has decided to introduce compliance procedures only at their eleventh meeting in May 2023<sup>94</sup> after failing to do so in prior meetings due to a lack of consensus.<sup>95</sup>

Several characteristics separate such non-adversarial mechanisms from those with strong sanctioning measures. Conceptually, aspects such as the focus on cooperation can be understood as governance instruments, considering a managerial perspective that emphasises coordination above legal interactions. For example, the provision of assistance has been conceptualised as an administrative coordination (or governance) instrument in the context of multilevel interactions between national and international administrators.<sup>96</sup> The wide range of NCMs in environmental treaties with different structures and procedures are usually part of the treaty's framework and set up as subsidiary bodies with the aim of avoiding formal legal disputes through adjudication.<sup>97</sup> In this sense, they share characteristics with the EU Pilot mechanism aimed at solving implementation issues to avoid formal infringement procedures. Another feature of NCMs is their flexibility and broad scope that reaches beyond

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<sup>90</sup> Abram Chayes and Antonia Handler Chayes, *The New Sovereignty. Compliance with International Regulatory Agreements* (Harvard University Press 1995); Geir Ulfstein, Thilo Marauhn, and Andreas Zimmermann (eds), *Making Treaties Work. Human Rights, Environment and Arms Control* (Cambridge University Press 2007); Voigt and Foster (n 81).

<sup>91</sup> Chayes and Handler Chayes, *The New Sovereignty* (n 90).

<sup>92</sup> Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press 2010) 236.

<sup>93</sup> Birgit Hollaus, 'The EU in multilateral environmental compliance mechanisms: an outside view' (2021) 5(1) *Europe and the World: A law review* 3.

<sup>94</sup> UNEP/POPS/COP.11/31, decision SC-11/19 <<https://pops.int/Portals/0/download.aspx?d=UNEP-POPS-COP.11-31.English.pdf>> accessed 10 December 2023.

<sup>95</sup> See Attila Tanzi and Cesare Pitea, 'Non-Compliance Mechanisms: Lessons Learned and the Way Forward' in Tullio Treves, Attila Tanzi, Cesare Pitea, Chiara Ragni, and Laura Pineschi (eds), *Non-Compliance Procedures and Mechanisms and the Effectiveness of International Environmental Agreements* (T.M.C. Asser Press 2009).

<sup>96</sup> Arthur Benz, Andreas Corcaci, and Jan W Doser, 'Unravelling multilevel administration. Patterns and dynamics of administrative co-ordination in European governance' (2016) 23(7) *Journal of European Public Policy* 999; Arthur Benz, Andreas Corcaci, and Jan W Doser, 'Multilevel Administration in International and National Contexts' in Michael W Bauer, Christoph Knill, and Steffen Eckhard (eds), *International bureaucracy: Challenges and lessons for public administration research* (Palgrave Macmillan 2017); Corcaci, 'The dynamics' (n 16).

<sup>97</sup> Hollaus (n 93) 4-5.

the confines of legal adjudication and legal language.<sup>98</sup> This benefits dynamic policy fields such as environmental policy because international courts and tribunals might not be effective in dealing with the subtle, often politically sensitive compromises that are required when dealing with environmental damage.<sup>99</sup> Exactly such compromises give conceptual rise to the ability of nation states to differentiate their implementation, as opposed to formal court rulings which generally leave less room for adaptation. This argument is further strengthened by the lower strictness of these mechanisms, which aim for ‘acceptable levels’<sup>100</sup> of implementation and are limited to ‘facilitative measures’<sup>101</sup> (again except for the Kyoto-related mechanisms that include stronger enforcement measures), thus allowing for compromises in adaptation.

Reflecting their collaborative nature and flexibility, the institutional setup of NCMs and their committees vary widely, for example in terms of their composition, size, and decision-making rules. They are usually set up in a way that represents the diversity of MEA’s Member States and their interests, which is particularly useful in environmental matters often affecting small or so-called ‘least developed’ countries but also Indigenous communities.<sup>102</sup> Furthermore, many NCMs only have a managerial mandate and consist of experts from different disciplines, whereas courts and tribunals are generally dominated by legal experts. Some NCMs like those related to the Kyoto Protocol, the Aarhus Convention, and the Protocol on Water and Health have, however, been termed ‘quasi-judicial’ because of their broader and more independent mandate where the compliance body can recommend or even directly adopt sanction-like measures.<sup>103</sup> The question of who can initiate non-compliance procedures depends on the treaty and includes Member States of the MEA, its secretariat, and NGOs. In contrast to international courts, the non-implementing country itself is the most common initiator, again stressing the non-adversarial character of NCMs.<sup>104</sup> Finally, initial insights from the literature imply mixed results regarding their performance of and dependence on the specific implementation regime. The activities of ‘softer’ NCMs cover various forms of (technical or financial) assistance, although in the case of the Basel Convention general implementation assessments have given way to reporting requirements. MEAs with enforcement capabilities have subsequently led to more formal sanctions, such as the suspension of rights and privileges (Kyoto Protocol) and even trade restrictions (Montreal Protocol).<sup>105</sup> However, general assessments of the effectiveness of compliance mechanisms are difficult and knowledge about their precise impact on improving implementation remains diffuse, thus requiring further empirical investigation. Political considerations also play an important role for developing compliance mechanisms, while the diversity of MEAs prevents the establishment of a ‘uniform approach’ to NCMs.<sup>106</sup>

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<sup>98</sup> However, this argument has been criticised, for example by Martti Koskenniemi, ‘The Fate of Public International Law: Between Technique and Politics’ (2007) 70(1) *The Modern Law Review* 1.

<sup>99</sup> Cardesa-Salzmann (n 36) 592.

<sup>100</sup> *ibid* 595.

<sup>101</sup> *ibid* 596.

<sup>102</sup> Cardesa-Salzmann (n 36) 593.

<sup>103</sup> Alessandro Fodella, ‘Structural and Institutional Aspects of Non-Compliance Mechanisms’ in Tullio Treves, Attila Tanzi, Cesare Pitea, Chiara Ragni, and Laura Pineschi (eds), *Non-Compliance Procedures and Mechanisms and the Effectiveness of International Environmental Agreements* (T.M.C. Asser Press 2009) 361-62.

<sup>104</sup> Cardesa-Salzmann (n 36) 594-95.

<sup>105</sup> *ibid* 597-600.

<sup>106</sup> Hedemann-Robinson (n 81) 42.

### 3.3 CONNECTIONS TO MANAGEMENT AND ENFORCEMENT

From these observations, a connection can be made between resolution mechanisms that are perceived as legitimate and positive preferences towards a decision, especially of the competent actors from non-implementing countries. The absence of a perceived threat of strong sanctions implicitly relates this conjunction of conditions to MEAs with soft implementation and compliance mechanisms that are based on cooperative approaches to the resolution of conflicts. Therefore, MEAs with such mechanisms are one (of several possible) empirical expression of this *explanatory path* for effective national implementation. Conversely and without excluding alternative explanations, such as the combination of different legal mechanisms in the sense of ‘forum shopping’,<sup>107</sup> a second connection can be made between resolution mechanisms with strong sanctioning measures, especially European and international courts, and negative preferences towards a decision. This is due to the underlying pressure of sanctions and expected negative consequences of being sanctioned in case of non-implementation. Perceptions of legitimacy may vary in these cases, although the total rejection of an international legal institution can act as a prohibitive scope condition in this context. Therefore, European and international courts with strong sanctioning capabilities are one of several possible empirical expressions of the second explanatory path theorised in this article. Based on this discussion, it is thus hypothesised:

- H<sub>1</sub>:** *Resolution mechanisms perceived as highly legitimate given positive actor preferences towards the resolution [and the presence of managerial mechanisms] lead to effective implementation.*
- H<sub>2</sub>:** *Resolution mechanisms with strong sanctioning measures given negative actor preferences towards the resolution [and varying legitimacy] lead to effective implementation.*

These hypotheses connect the national implementation of decisions to mechanisms of environmental conflict resolution in European and international decision-making bodies. The first explanation (*H<sub>1</sub>*) can be connected to the *management* approach because it points towards the ability and capacities of the implementing party and implies that positive actor preferences in conjunction with high perceived legitimacy of the resolution mechanism leads to the effective national implementation of decisions in the absence of specialised ECTs beyond the nation state. The second explanation (*H<sub>2</sub>*) is related to the *enforcement* approach because it focuses on sanctioning strategies to facilitate implementation.<sup>108</sup> It is thus expected that strong sanctioning mechanisms lead to effective implementation given negative actor preferences towards the decision, which are compensated by enforcement measures.

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<sup>107</sup> Aynsley Kellow, ‘Multi-level and multi-arena governance: the limits of integration and the possibilities of forum shopping’ (2012) 12(4) *International Environmental Agreements: Politics, Law and Economics* 327.

<sup>108</sup> Tallberg (n 7) 609.



## 4 CONCEPT STRUCTURAL FOUNDATIONS

### 4.1 CONCEPT STRUCTURAL METHODOLOGY

To connect conceptual insights and empirical analysis, a novel research design is developed based on the idea of *concept structures*,<sup>109</sup> a formalised methodology of concept construction in the social sciences. It can be expressed formally with the help of set theory and uses formal logic to specify concepts and conceptual and empirical relationships at the core of social research. This approach is uniquely suited for studies that combine strong theory building and empirical analysis because it inherently integrates theory and empirics and thus strengthens their coherence more than many other research designs. It does so by formally connecting concepts with explanatory conditions and outcomes used in subsequent empirical analysis. The concept structure developed in this article constitutes a *theory-driven formalised framework* that, first, provides the basic analytical categories required for data gathering and empirical assessment. It is especially viable to conduct set theoretic multimethod research (SMMR) based on *Qualitative Comparative Analysis* (QCA)<sup>110</sup> and subsequent process tracing. Thus, QCA (a configurational approach to causality) is combined with process tracing (a mechanistic view) to study both ‘why’ and ‘how’ of the phenomenon under investigation.<sup>111</sup> The addition of concept structures to theory-driven empirical research is based on earlier work<sup>112</sup> and lends itself to QCA, a method rooted in philosophy (formal logic) and mathematics (set theory, Boolean algebra), because it is constructed from the same formal logical and set theoretic principles. QCA is intrinsically designed to move back and forth between theory and evidence<sup>113</sup> to explain medium-*n* case<sup>114</sup> numbers through combinations of sufficient conditions (‘configurations’). From the hypotheses and a theoretical understanding of *what it means* to implement decisions, a concept structure is built that illustrates both the theoretically expected explanatory paths and the concept of implementation.

Concepts play a vital role in the social sciences both as parts of theories and to provide systematic meaning to the categories used in social research. However, approaches to formalise concepts with the aim of connecting them to measurement and empirical analysis are sparse. To this end, this article employs a mid-range approach to concept structural research designs based on the *concept construction and use* framework by Goertz,<sup>115</sup> which clarifies how multilevel concepts can be formalised from a set-theoretical perspective. The mid-range approach implies building a concept structure based on theoretical and empirical

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<sup>109</sup> Goertz, *Social Science Concepts* (n 4); Goertz, *Social Science Concepts and Measurement* (n 4); see also Corcaci, *Compliance in der EU* (n 4).

<sup>110</sup> See Charles C Ragin, *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies* (University of California Press 1987); Patrick A Mello, *Qualitative Comparative Analysis: An Introduction to Research Design and Application* (Georgetown University Press 2021); for international law, see Pablo Castillo-Ortiz, ‘Chapter 19: Qualitative Comparative Analysis (QCA) as an empirical method for international law’ in Rossana Deplano and Nikolaos K Tsagourias (eds), *Research Methods in International Law* (Edward Elgar 2021).

<sup>111</sup> Valérie Pattyn, Priscilla Álamos-Concha, Bart Cambré, Benoît Rihoux, and Benjamin Schalembier, ‘Policy Effectiveness through Configurational and Mechanistic Lenses: Lessons for Concept Development’ (2022) 24(1) *Journal of Comparative Policy Analysis* 33.

<sup>112</sup> Corcaci, *Compliance in der EU* (n 4) 100-08.

<sup>113</sup> Charles C Ragin, *Fuzzy-set social science* (The University of Chicago Press 2000) 45.

<sup>114</sup> In this section, ‘case’ refers to the observational unit used in social research, not to legal cases.

<sup>115</sup> Goertz, *Social Science Concepts* (n 4); Goertz, *Social Science Concepts and Measurement* (n 4).

knowledge as the ‘ontological’ or analytical dimension of the research design, and subsequently conducting empirical analysis through configurative methods as its explanatory component.<sup>116</sup> While Goertz stresses<sup>117</sup> that conceptual frameworks sometimes ‘end with a quantitative measure that can be used in causal-statistical analysis’, his semantic and ontological framework of concepts is based on a different conception of causality than correlational and factor-analytic statistics. It also assumes a different relationship between explanans and explanandum of a phenomenon, which the author describes as ‘structural principles for constructing multidimensional and multilevel concepts’.<sup>118</sup>

The first principle goes back to Aristotle and rests on necessary and sufficient conditions to define concepts. It can be interpreted as representing well-defined or *classical categories*,<sup>119</sup> because it provides fully defined and complete descriptions of the underlying concepts. A conjunctive occurrence of several attributes is necessary and sufficient to describe a given concept, for example:  $A*B*C = Y$ . The second principle is connected to Wittgenstein’s idea of family resemblance. It can be linked to so-called *radial categories*<sup>120</sup> where some attributes may be sufficient to account for the presence of a concept, but other possibilities should also be considered, for example:  $A*B+B*C+A*C \rightarrow Y$ . This approach represents *equifinality* because it allows for different but equally valid ways an outcome (here: a concept) can be described or explained without excluding other descriptions in separate contexts and without stipulating a single complete description. Both construction principles are at least implicitly based on the mathematical foundations of formal logic and set theory, Boolean algebra. This is why they can be formalised accordingly when expanded to in-between concept relationships, for example through set-theoretic methods such as QCA, which is used to analyse sufficiency relationships.

In reference to Aristotelian logic, Goertz argues that the logical operator AND represents the logic of necessary and sufficient conditions because it links several necessary conditions, which in conjunction become sufficient to account for a specific outcome. More precisely, AND links several so-called INUS conditions (insufficient but necessary parts of a condition that is unnecessary but sufficient for the outcome),<sup>121</sup> which constitute a sufficient explanation. What is usually referred to as ‘a cause’ in colloquial speech can often be described more precisely as an INUS condition, because many causes are in fact parts of a conjunction of several necessary attributes, which together form one sufficient cause for an outcome. Going beyond this understanding, a sufficient condition consisting of several INUS conditions only represents *one among several* possible explanations for an outcome. This alludes to equifinality, which is where the logical operator OR comes into play. It links equifinal (i.e., separate but equally valid) sufficient conditions that each lead to the outcome in question. Goertz, in contrast, connects OR to the family resemblance structure, because the presence of any  $m$  out of  $n$  conditions is sufficient to explain an outcome.<sup>122</sup> This,

<sup>116</sup> Corcaci, *Compliance in der EU* (n 4) 104-05.

<sup>117</sup> Goertz, *Social Science Concepts and Measurement* (n 4) 31.

<sup>118</sup> Goertz, *Social Science Concepts* (n 4) 7.

<sup>119</sup> David Collier and James E. Mahon, ‘Conceptual “Stretching” Revisited: Adapting Categories in Comparative Analysis’ (1993) 87(4) *American Political Science Review* 845, 846.

<sup>120</sup> Collier and Mahon (n 119) 848.

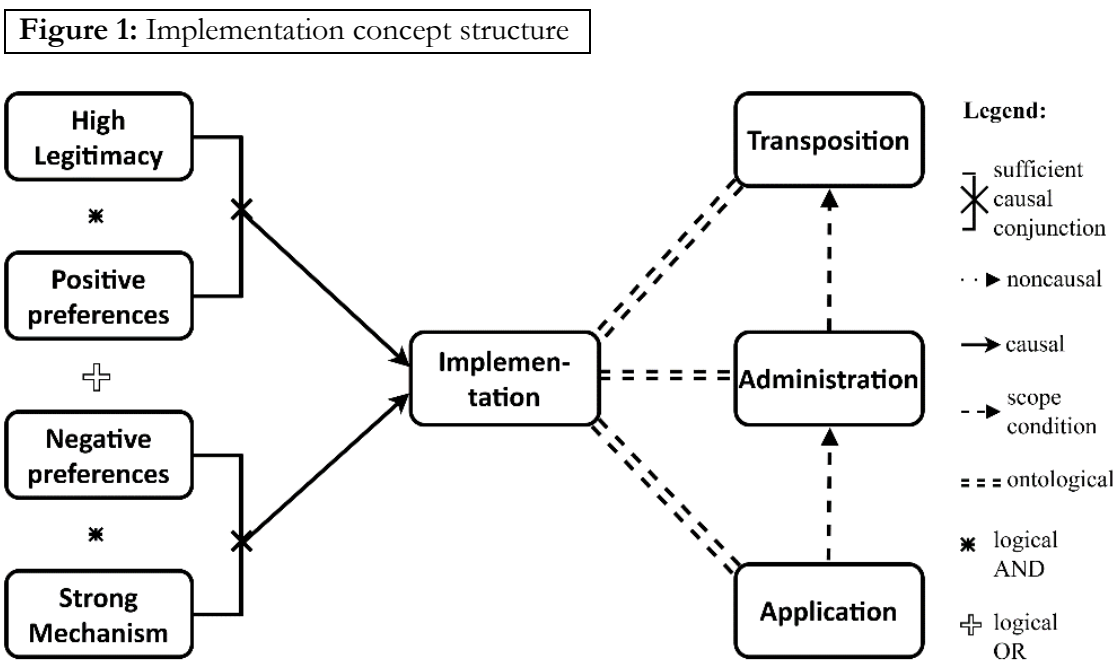
<sup>121</sup> See James Mahoney, Erin Kimball, and Kendra L. Koivu, ‘The Logic of Historical Explanation in the Social Sciences’ (2009) 42(1) *Comparative Political Studies* 114, 126.

<sup>122</sup> Goertz, *Social Science Concepts* (n 4) 45.

however, does not exactly correspond to the notion of equifinality and the function of this operator in Boolean algebra and formal logic.

#### 4.2 A CONCEPT STRUCTURE OF THE IMPLEMENTATION OF DECISIONS ON ENVIRONMENTAL CONFLICTS

With this methodological background in mind, the implementation concept structure is shown in *Figure 1*.



Source: author's illustration

The left side of the illustration represents the two expected explanations for the outcome *effective implementation of court judgments and managerial decisions* (IMP) and their logical connections as per hypotheses H<sub>1</sub> and H<sub>2</sub>. While the first explanatory path consists of the conditions *high perceived legitimacy* (HPL) AND *positive actor preferences* (PAP), the second includes *negative actor preferences* (NAP) AND *strong resolution mechanism* (SRM). The logical AND (in formal notation: “\*”) implies a ‘causal’ (i.e., explanatory) conjunction (more specifically, it identifies INUS conditions). Taken together, the two paths form a *sufficient explanation* for the outcome (so-called ‘conjunctural causation’). The paths are connected through a logical OR (“+”), implying equifinality, i.e., different configurations of conditions can lead to the same outcome. This means that each sufficient condition (or combinations thereof, connected through logical ANDs) constitutes one of several separate but equally valid explanations for implementation (‘equifinal causation’). In formal notation, they can be expressed as:

$$H_{1+2}: HPL * PAP + SRM * NAP \rightarrow IMP$$

High legitimacy and positive preferences may be accompanied by ‘soft’ managerial mechanisms, set theoretically expressed as the *absence* of a strong mechanism, formally: *HPL \* PAP \* ~SRM* (read: ‘not SRM’). Other explanations, such as a conjunction of a strong

mechanism and positive preferences or other conditions altogether could occur empirically. Two strategies to deal with alternative explanations are proposed here: First, the feature of QCA to move back and forth between theory and data by re-examining affected cases in more detail can be used to update the concept structure (for example by adding a condition). Second, so-called ‘deviant cases’<sup>123</sup> can be analysed through process tracing. To check model robustness, simulations can be run in which solutions are compared under different analytical settings. These concern the ‘calibration’ (i.e., operationalization) of the conditions and outcomes, and strategies of handling ‘logical remainders’, logically possible combinations of conditions that are not covered by empirical data.

The right side of the illustration clarifies the *ontological* part of the conceptual framework, i.e., what implementation *is*. In previous work on policy implementation in the EU,<sup>124</sup> three conceptual parts are identified of what it means to implement law effectively: *transposition* of a legal act into national law (TRA); establishment of *administrative* structures and processes to implement a legal act (ADM); and its practical *application* (APP). This article extends this characterisation of implementation processes to court judgments and other decisions by supra- and international bodies as their implementation at least *potentially* also consist of these conceptual parts. Indeed, as has been shown,<sup>125</sup> court judgments by the CJEU follow analogous processes of transposition, administrative implementation, and practical application. In ideal theory, the relationship between these three components is one of *non-causal necessity*, i.e., transposing a court decision into national law is a necessary (non-causal) condition to implement required structural and procedural changes, which in turn is a necessary (non-causal) condition to apply the decision in full. Empirically, a focus can be put on explaining the overarching outcome ‘implementation’, thus considering its components as part of the outcome specification and data collection.

Whether confrontational, formal sanctioning mechanisms or cooperative, informal NCMs facilitate the implementation of court judgments and managerial decisions beyond the nation state is a topic of growing interest in the literature,<sup>126</sup> including the question of whether NCMs are always ‘soft’.<sup>127</sup> Making use of concept structures with set-theoretical categories as outlined above can be helpful to theorise and empirically compare the distinct types of enforcement along an axis ranging from soft/weak to hard/strong. Using set-theoretic methods, a particularly soft non-compliance mechanism can be considered ‘mostly out of the set’ (of strong enforcement mechanisms), while a particularly strong sanction mechanism, such as the ability of the CJEU to impose significant daily fines, would be considered ‘mostly in the set’. In between these extremes, *fuzzy sets* allow for a difference-in-

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<sup>123</sup> Harry Eckstein, ‘Case studies and theory in political science’ in Fred Greenstein and Nelson Polsby (eds), *Strategies of Inquiry. Handbook of Political Science* (Vol. 7, Addison-Wesley 1975); Jack S Levy, ‘Case Studies: Types, Designs, and Logics of Inference’ (2008) 25(1) *Conflict Management and Peace Science* 1.

<sup>124</sup> Corcaci, *Compliance in der EU* (n 4) ch. 3.2.

<sup>125</sup> *ibid* 73-74.

<sup>126</sup> Cardesa-Salzmann (n 36); Malgosia Fitzmaurice and Catherine Redgwell, ‘Environmental non-compliance procedures and international law’ (2000) 31 *Netherlands Yearbook of International Law* 35; John G Merrills, *International Dispute Settlement* (Cambridge University Press 2017); Treves et al (n 81).

<sup>127</sup> Elena Fasoli and Alistair McGlone, ‘The Non-Compliance Mechanism Under the Aarhus Convention as “Soft” Enforcement of International Environmental Law: Not So Soft After All!’ (2018) 65(1) *Netherlands International Law Review* 27.

degree<sup>128</sup> with gradual set memberships and thus for the categorisation of a range from formal to informal non-compliance mechanisms. This way of calibrating conditions and outcomes can help make sense of and enable comparisons between enforcement types across different resolution mechanisms.

## 5 EMPIRICAL IMPLICATIONS

As a framework for analysis, the implementation concept structure can be applied empirically in a variety of ways, one of which is outlined briefly here to illustrate its potential. Concept structures lend themselves to *configurational* research methods due to their connections to formal logic. Therefore, a set theoretic multimethod approach could be followed: data gathering based on public documents and complementary expert interviews (first step), a broader comparative examination via QCA (second step), and in-depth process tracing of selected deviant or unexpected cases from the QCA (third step).

In terms of case<sup>129</sup> selection, cases can be defined as national implementation processes of supra- and international court judgments and managerial decisions on environmental conflicts. In line with the aim to gain generalisable insights through comparison, specific implementation processes can be selected to cover important decisions from both resolution mechanisms. They can be chosen to broadly match courts with NCMs in terms of environmental conflict area, while accounting for sufficient case numbers and variation. First, conflict resolution through courts can be considered, specifically the CJEU (judgments on hazardous waste and chemicals), the ICJ (judgments on sustainable water resource management), and the International Tribunal for the Law of the Sea (ITLOS; judgments on protection of the marine environment). Conflicts decided in courts are *legally binding* and usually feature strong sanctioning measures that can carry significant punitive measures (regardless of their enforceability), sometimes including financial penalties (for example in case of the CJEU). Consequently, ensuring implementation would not depend on perceptions of their legitimacy by the affected parties, which may vary in these cases. Second, decisions from non-compliance mechanisms in MEAs can be considered, specifically the Basel and Rotterdam Conventions on hazardous waste and chemicals (substantive match to CJEU), the Water Convention and the Protocol on Water and Health (matches ICJ), and NCMs in Regional Fishery Management Organisations (matches ITLOS). Such MEAs usually do not feature legally binding procedures to enforce decisions but non-confrontational, managerial mechanisms. Thus, they may need to rely on, or at least can benefit from, referring to their legitimacy to ensure implementation. Including four implementation processes per court and matching NCM would create a baseline of twenty-four cases, well-suited for a formal analysis using QCA with three conditions.

First, qualitative data on the explanatory conditions and outcome can be gathered from public documents, such as monitoring reports and official statements on implementation, but also existing research, such as case studies and legal opinions or commentaries. Complementary qualitative interviews with experts from academia and practice (for example academics, judges, administrators engaged in non-compliance procedures, national

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<sup>128</sup> Carsten Q Schneider and Claudius Wagemann, *Set-Theoretic Methods for the Social Sciences. A Guide to Qualitative Comparative Analysis* (Cambridge University Press 2012) 27.

<sup>129</sup> In this section, 'case' refers to the observational unit used in social research, not to legal cases.

representatives involved with implementation) can be conducted to account for missing information and to contextualise the implementation process. If required, document and interview data can be structured via qualitative content analysis to prepare empirical analysis. Second, QCA can be used based on the implementation concept structure to verify the hypotheses and identify systematic trends not yet accounted for by prior research and conceptual considerations. The conditions and outcome can be calibrated using fuzzy sets to assure sufficient variation, qualitatively measured, and coded based on document and interview data (see *Table 2*). Results can be discussed in a comparative case study. Finally, deviant or unexpected cases from the QCA can be assessed in more detail if they either contradict the concept structure or are not covered by the results. Subsequently, in-depth process tracing<sup>130</sup> can be conducted to find additional conditions or within-case reasons for contradictions. This would provide new insights compared to the QCA alone and used to update the implementation framework and further develop the underlying theory.

**Table 2:** Measurement and operationalisation

Measurement	Condition/Outcome	Calibration
<i>Qualitative measurement of conditions and outcome:</i> based on data gathered from public documents and through interviews  <i>Measurement based on quadrivalent fuzzy set:</i> 0 (fully out of the set) 0.33 (more out than in) 0.67 (more in than out) 1 (fully in the set)	<i>Actor preferences</i> (by actors responsible for implementing judgments or other decisions)	0: fully against implementation of case at hand (i.e., court judgment or managerial decision) 0.33: partly against implementation (open to change) 0.67: partly for implementation (with reservations) 1: fully for implementation
	<i>Perceived legitimacy</i> (by actors responsible for implementing judgments or other decisions)	0: resolution mechanism and procedure perceived as fully illegitimate 0.33: low perceived legitimacy 0.67: perceived as legitimate with restrictions 1: perceived as fully legitimate
	<i>Strength of resolution mechanism</i> (court judgment or managerial decision)	0: voluntary mechanism without consequences for the implementing party 0.33: voluntary mechanism with consequences 0.67: legally binding mechanism with weak consequences 1: legally binding mechanism with strong consequences/financial penalties
	<i>Effectiveness of implementation</i> (overall outcome, includes formal	0: (almost) no implementation of the court judgment/ managerial decision 0.33: partial implementation, major restrictions

<sup>130</sup> Pattyn et al (n 111).

	transposition, administrative structures/ procedures, application)	0.67: substantial implementation, minor restrictions 1: full implementation occurred
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*Source: author's illustration*

To select suitable cases for the last step, two case types can be considered: ‘deviant in consistency’ and ‘deviant in coverage’. *Deviant cases in consistency* suggest a contradiction in the solution terms (i.e., explanations) of the QCA, where a follow-up case study of the deviant case can be beneficial for detecting scope condition(s) of the solution that would differentiate the deviant case(s) from other typical case(s). *Deviant cases in coverage* do not contradict the solution but suggest unspecified solution terms. A case study can help to uncover alternative explanations that would cover such deviant case(s). Based on these case types, two comparative strategies to enhance causal inference can be considered:<sup>131</sup> First, deviant cases in consistency can be compared to typical cases to identify scope conditions and thus support causal inference of the solution term. Second, deviant cases in coverage can be compared to ‘individually irrelevant cases’, which lack empirical attributes to generate causal mechanisms of the QCA solution, i.e.,  $X=0$  and  $Y=0$ . Such comparisons can highlight alternative explanatory pathways.

The multimethod empirical application outlined here seems well-suited for various reasons: First, it helps assess the underlying hypotheses, especially whether strong sanctioning mechanisms or cooperative non-compliance mechanisms can account for implementation of decisions given negative actor preferences (without excluding the possibility of ‘forum shopping’). Second, because of its comparative nature, QCA can unveil systematic trends that have not been accounted for by prior research. Third, the influence of other conditions, such as the role of different institutions, the legal apparatus (court-, tribunal-, treaty-type mechanisms), domestic socialisation, legal mobilization, and civil society can be inferred indirectly in case the results fail to explain most cases or if the quality of the results is low according to the method’s quality parameters. This approach would enable a systematic analysis, which can unravel the complex explanatory relationships for medium (QCA) and small (process tracing) case numbers. Due to a close connection between conceptual and empirical levels, it could advance our understanding of the national implementation of supra- and international environmental conflicts, a crucial but so far sparsely analysed area of judicial governance and implementation research.

## 6 CONCLUDING REMARKS

In this article, a concept structural methodology was outlined to theorise environmental conflict resolution and the national implementation of related judgments from supra- and international courts and managerial decisions from non-compliance mechanisms. Following a political science perspective, legal contributions are referenced to contextualise the research, and an integrated trans-disciplinary terminology is proposed to account for different disciplinary viewpoints relevant to this article. Environmental conflict resolution

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<sup>131</sup> Schneider and Rohlfing (n 5).

was conceptualised from the perspective of previous work on implementation in the EU and by connecting different strands of literature with a focus on political science, while also integrating legal research (section 2). Subsequently, two core conditions have been explored for effective implementation against the background of varying actor preferences. Derived from the management and enforcement approaches, the focus has been on the perceived legitimacy of institutions and processes of conflict resolution as well as the mechanisms used to resolve conflicts and the strength of their sanctioning measures (section 3). The article has then elaborated on the concept structural foundations of policy implementation and has outlined an implementation concept structure, which theorises key concepts and serves as a basis for empirical analysis (section 4). Finally, empirical implications of the resulting framework were discussed (section 5).

The article advances research on comparative implementation research by enabling empirical comparisons of implementation processes across distinct types of court-type and NCM-type resolution mechanisms. It also assesses the role that legitimacy and more cooperative non-compliance mechanisms can play in this context, thus bridging the gap between various resolution mechanisms and their relationship to national implementation. Future conceptual and empirical research can directly feed back into the concept structure for further theoretical development. Legal researchers can also benefit from this article through inspiration to integrate this innovative, concept structural framework into their research design as a step before carrying out a detailed systematic doctrinal legal analysis. Coming back to the example mentioned in the introduction, this framework could for instance be applied to the extensive CJEU case law regarding Directive 2008/50 on the protection of ambient air in the EU. Doing so would allow legal researchers to assess the effectiveness across resolution mechanisms accounting for both judgments and managerial decisions. The same theoretical framework could also be adapted for use in other fields of analysing resolution mechanisms in international and European law. It thus provides an explanatory component for identifying macro trends which may yield insights that complement and go beyond legal doctrinal analysis, such as evidence for the most effective legal designs in a specific field of law.





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