

Obligations of conduct in the international law on climate change: A defence

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An obligation of conduct is an obligation to make an honest endeavour, notwithstanding the outcome. From the no-harm principle to the United Nations Framework Convention on Climate Change and the Paris Agreement, obligations of conduct play a central role in the international law on climate change mitigation. They are not simply the result of political tradeoffs with reluctant States, but they address real concerns with the unpredictable costs of implementing specific mitigation targets over a decade or more. This article retraces the origins of obligations of conduct in the French law of obligations and its reception in international law. It then highlights the prominence of such obligations in the international law on climate change mitigation. Based on this analysis, it contends that obligations of conduct are an effective tool to promote ambition and participation to international efforts on climate change mitigation.

1 INTRODUCTION

Any obligation belongs to one of two types. The obligations of the first type, called ‘obligations of result’, require the realization of a specified outcome. By contrast, the obligations of the second type, called ‘obligations of conduct’, require an endeavour towards a goal or an outcome. A classic example of an obligation of conduct is the obligation of a medical doctor towards her patient. Imposing on her an obligation of result would be unreasonable: she cannot be held liable whenever she fails to cure a patient. Nevertheless, this doctor is expected to endeavour to treat her patient to the best of her abilities. The breach of this obligation of conduct may engage her professional, civil or even criminal liability.

This distinction, drawn from civil law traditions, appears as a useful tool to interpret the substantial obligations of States with regard to climate change mitigation, in particular – but not only – under the Paris Agreement. Qualifying the nature of an obligation as either an obligation of result or an obligation of conduct is essential to determining the conditions and processes to assess compliance. An obligation of result is to be found in the Kyoto Protocol – the obligation for each Annex I party to ‘ensure’ that its aggregate greenhouse gas (GHG) emissions do not exceed an assigned amount.¹ By contrast, as will be shown in this article, the general international law obligation of States not to cause significant transboundary harm (the no-harm principle) is more convincingly construed as an obligation of conduct. Consistently, the Paris Agreement turned, in the second sentence of Article 4(2), to what clearly qualifies as an obligation of conduct – an obligation for country parties to ‘pursue domestic mitigation measures, with the aim of achieving the objectives of’ their successive nationally determined contributions (NDCs).²

Article 4(2), second sentence, constitutes arguably the center of gravity of the Paris Agreement: it inserts NDCs within the system of obligations created by the treaty.³ Yet, early commentaries on the Paris Agreement draw a rather confusing image. For instance, while Daniel Bodansky suggests that this provision ‘was formulated as an “aim” rather than as a legal obligation’,⁴ Lavanya Rajamani sees there the expression of ‘binding obligations of conduct coupled with a good

¹ Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997, entered into force 16 February 2005) 2303 UNTS 162 art 3(1).

² Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) 55 ILM 740 art 4(2).

³ By contrast, *ibid* art 3, first sentence, provides a broader but vaguer commitment of the Parties to ‘undertake and communicate ambitious efforts’ on climate change mitigation, adaptation, support and transparency.

⁴ D Bodansky, ‘The Paris Climate Change Agreement: A New Hope?’ (2017) 110 *American Journal of International Law* 288, 295. See also C Bakker, ‘The Paris Agreement on Climate Change: Balancing “Legal Force” and “Geographical Scope”’ (2015) 15 *Italian Yearbook of International Law* 299, 307; J Brunnée, ‘The Rule of International (Environmental) Law and Complex Problems’ (6 December 2017) <<https://ssrn.com/abstract=3080458>>.

faith expectation of results'.⁵ Rajamani, however, does not further elaborate on the implications of an obligation of conduct or the meaning of 'good faith expectation of results'. James Crawford considers that 'the Paris Agreement does not impose or inflict substantive obligations'.⁶ Adding to the confusion, Peter Lawrence and Daryl Wong see nothing but a "soft" non-binding obligation⁷ – a contradiction in the terms, for an obligation is, by definition, binding. The general sense seems that Article 4(2), second sentence, establishes an obligation of conduct, and that this provision is weaker than an obligation of result would have been.⁸ It is hoped that this article will help clarify the nature of this central provision of the Paris Agreement as an obligation of conduct directed towards the fulfilment of a specified mitigation outcome. Rather than a weakness, this obligation of conduct could foster stronger national commitments and provide firm ground for a continuing review of compliance.

Beyond the Paris Agreement, this article attempts to present a thorough analysis of the nature of States' obligations in relation to climate change mitigation. Building on theoretical scholarship and on judicial decisions in civil law traditions as well as international law, it contends that obligations of conduct are not necessarily just a last resort of protracted negotiations: they may be at least as demanding as obligations of result. In addition, it is argued that treaty provisions establishing obligations of conduct are in line with pre-existing State obligations under general international law (i.e. the no-harm principle) and that they better take into account the limited resources that States are willing to pledge at any given time. These suggest that obligations of conduct, as the basis for international cooperation on climate change mitigation, hold great promise if objectives are clearly defined and if compliance is effectively and transparently monitored.

The next section lays the theoretical foundation for this argument by defining obligations of conduct and obligations of result. Section 3 identifies obligations of conduct in the international law on climate change mitigation. Section 4 demonstrates the ability of obligations of conduct to generate national support to significant efforts on climate change mitigation. Section 5 concludes.

2 THE DISTINCTION BETWEEN OBLIGATIONS OF CONDUCT AND OBLIGATIONS OF RESULT

The dichotomy between obligations of conduct and obligations of result, whose origins could be traced back to Roman law, was systematically developed under modern French law.⁹ The 1804 French Civil Code establishes that the debtor of an obligation could be held responsible 'by reason of the non-performance of the obligation'.¹⁰ However, this approach was nuanced by other provisions of the Civil Code, in particular a provision characterizing the obligation to watch over the preservation of a thing as an obligation 'to give it all the care of a prudent administrator'.¹¹

Courts¹² and the doctrine¹³ interpreted these provisions as defining two kinds of obligations. The *obligation de résultat* (obligation of result) requires the realization of a determined performance.

⁵ L Rajamani, 'The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations' (2016) 28 *Journal of Environmental Law* 337, 354. See also, e.g., L Rajamani and J Brunnée, 'The Legality of Downgrading Nationally Determined Contributions under the Paris Agreement: Lessons from the US Disengagement' (2017) *Journal of Environmental Law* 542.

⁶ J Crawford, 'The Current Political Discourse Concerning International Law' (2018) 81 *Modern Law Review* 1, 21.

⁷ P Lawrence and D Wong, 'Soft Law in the Paris Climate Agreement: Strength or Weakness?' (2016) 26 *Review of European, Comparative and International Environmental Law* 276.

⁸ See M Doelle, 'Assessment of Strengths and Weaknesses' in DR Klein et al (eds), *The Paris Agreement on Climate Change: Analysis and Commentary* (Oxford University Press 2017) 378; H Winkler, 'Mitigation' in Klein et al, *ibid* 146; D Bodansky, J Brunnée and L Rajamani, *International Climate Change Law* (Oxford University Press 2017) 231.

⁹ See, e.g., R Demogue, *Traité des Obligations en Général* (Editions Rousseau 1925) volume 5, 538; J Bellissent, *Contribution à l'Analyse de la Distinction des Obligations de Moyens et des Obligations de Résultat* (LGDJ 2001).

¹⁰ Code Civil (France), art 1231-1 (previously art 1147).

¹¹ Code Civil (France), original version, art 1137 (official translation). This article was revoked in 2016 as part of a general overhaul of this part of the Civil Code.

¹² See, e.g., Court of Paris, 16 November 1927, in (1928) *Semaine Juridique* 53.

The ‘result,’ here, is not necessarily the ultimate objective (the ‘cause’) of the contract: obligations of result may relate to the performance of intermediary steps as specified in the contract.¹⁴ When a judge distinguishes an obligation of result, her role is limited to assessing whether the result has been achieved; if not, the creditor is a priori at fault, unless circumstances precluding wrongfulness can be invoked. By contrast, the *obligation de moyens* (obligation of means or conduct) requires an endeavour towards the thing which has been promised. The endeavour may be directed at a specific objective (one which may or may not be achieved) or it may point toward a general aspiration.¹⁵ Here, the judge is to assess whether the debtor has failed to carry out the efforts which would have been expected from a reasonable administrator. It is the failure to carry out such efforts, not the end result, which could engage the contractual responsibility of the debtor.

Beyond contract law, this dichotomy was progressively construed and taught in French law schools as a *summa divisio* of legal obligations – a criterion used as the first rank of a systematic typology.¹⁶ For instance, the French Constitutional Council recently applied these concepts to analyse the statutory obligations of educational institutions,¹⁷ employers¹⁸ and territorial authorities.¹⁹

The civil law concept of an obligation of conduct is a functional equivalent to the common law notion of a due diligence (as it is used, for instance, in contract law).²⁰ Yet, as part of a *summa divisio* of obligations, ‘obligation of conduct’ has arguably a broader scope. A due diligence obligation is sometimes construed as an obligation ‘to endeavour to reach the result’,²¹ to the exclusion of open-ended obligations towards a general aspiration.²² Moreover, due diligence is often understood narrowly as the effort of one person to seek a particular conduct from another person. Overall, while due diligence obligations are often viewed as essentially ‘truncated’ obligations, the civil law tradition does not necessarily regard obligations of conduct as less stringent than obligations of result. The failure of a debtor to carry out the necessary efforts could engage his responsibility even if, by luck, the specified outcome is achieved.²³

The civil law dichotomy has occasionally been deployed in international law. It was particularly relevant in international human rights law, where States’ obligations are often obligations to work towards a goal rather than obligations to achieve a specified outcome. The International Covenant on Economic, Social and Cultural Rights, for instance, is built around an obligation of

¹³ C Thomas, ‘La Distinction des Obligations de Moyens et des Obligations de Résultat’ (1937) 57 *Revue Critique de Législation et de Jurisprudence* 636, 640. See also J Belissent, *Contribution à l’Analyse de la Distinction des Obligations de Moyens et des Obligations de Résultat: à Propos de l’Évolution des Ordres de Responsabilité Civile* (LGDJ 2001).

¹⁴ The obligation to ‘conduct’ *specified* measures is an obligation of result as the obligation relates to the realization of an outcome (the implementation of the measure) rather to an endeavour. See, e.g., PM Dupuy, ‘Reviewing the Difficulties of Codification: On Ago’s Classification of Obligations of Result in Relation to State Responsibility’ (1999) 10 *European Journal of International Law* 371.

¹⁵ See R Wolfrum, ‘General International Law (Principles, Rules, and Standards)’ in R Wolfrum (ed), *Max Planck Encyclopedia of Public International Law* (Oxford University Press 2010), suggesting that a category of ‘goal-oriented obligations’ could be distinguished from other ‘obligations of conduct’.

¹⁶ See, e.g., Jean Carbonnier, *Droit Civil* (PUF 1955) 2190-2191.

¹⁷ Conseil Constitutionnel (France), decision 2005-512 DC, ‘Loi d’orientation et de programme pour l’avenir de l’école’ (21 April 2005) para 19

¹⁸ Conseil Constitutionnel (France), decision 2001-455 DC, ‘Loi de modernisation sociale’ (12 January 2002) para 40.

¹⁹ Conseil Constitutionnel (France), decision 2000-436 DC, ‘Loi relative à la solidarité et au renouvellement urbains’ (7 December 2000) para 13.

²⁰ See C Pejovic, ‘Civil Law and Common Law: Two Different Paths Leading to the Same Goal’ (2001) 32 *Victoria University of Wellington Law Review* 817, 826.

²¹ Timo Koivurova, ‘Due Diligence’ in R Wolfrum (n 15) para 3.

²² See R Bodle and S Oberthür, ‘Legal Form of the Paris Agreement and Nature of Its Obligations’ in Klein et al (n 8) 99, fn 62. See also C Voigt, ‘The Paris Agreement: What Is the Standard of Conduct for Parties?’ (2016) 26 *Questions of International Law* 17.

²³ See, e.g., J Combacau, ‘Obligations de Résultat et Obligations de Comportement: Quelques Questions et Pas de Réponse’ in *Mélanges Offerts à Paul Reuter: Le Droit International: Unité et Diversité* (Pedone 1981) 194, 196; A Tunc, ‘La Distinction des Obligations de Résultat et des Obligations de Diligence’ (1945) 1 *Juris-Classeur Périodique* 449.

conduct: the obligation of each Party ‘to take steps ... to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized’ in the Covenant.²⁴ Likewise, the European Court of Human Rights (ECtHR) characterized as obligations of conduct²⁵ the obligations of national authorities to promote public health and safety,²⁶ to investigate allegedly unlawful killings²⁷ and to take measures to facilitate contact of a divorced parent with his child.²⁸ Cases regarding compliance with such obligations involved a detailed review and assessment of the steps taken by national authorities, routinely leading to findings of violations.²⁹

The distinction between obligations of conduct and obligations of result was also recognized in other areas of international law. Yet some confusion may have arisen from work of the International Law Commission on the responsibility of States, when special rapporteur Roberto Ago called ‘obligation of conduct’ the obligation ‘specifically calling for [a State] to adopt a particular course of conduct’³⁰ – in the civil law typology, such an obligation would be considered as an obligation of result, namely the obligation to achieve the implementation of particular measures.³¹ In its judgment in *LaGrand*, the International Court of Justice (ICJ) considered that its previous order on provisional measures calling the United States (US) to ‘take all measures at its disposal to ensure that Walter LaGrand is not executed’ established an obligation of conduct rather than an obligation of result.³² Since the necessary measures had not been taken to prevent the execution, the Court concluded that the United States had violated this obligation.³³ In the *Pulp Mills* case, the ICJ interpreted a treaty obligation ‘to adopt regulatory or administrative measures either individually or jointly and to enforce them’ as an obligation of conduct, namely an obligation to endeavour to avoid changes in the ecological balance.³⁴

3 THE PREVALENCE OF OBLIGATIONS OF CONDUCT ON CLIMATE CHANGE MITIGATION

This section analyses substantive international law obligations relating to climate change mitigation in the light of the dichotomy between obligations of conduct and obligations of result. It contends that these obligations are generally to be interpreted as obligations of conduct, with the notable exception of the Kyoto Protocol, which established an obligation of result.³⁵

3.1 Obligations of conduct in general international law

Like most fields of law, international law includes general norms and specific rules. Specific rules are typically agreed upon by States through express written provisions contained in treaties. By contrast, general norms arise, as customs, through the general practice of States and its recognition as law.

²⁴ International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UNTS 3 art 2(1).

²⁵ The ECtHR uses the concept of ‘obligation of means’ in English, which is a more literal translation from the French ‘*obligation de moyens*’.

²⁶ *Georgel v Romania*, App No 9718/03 (ECtHR, 26 July 2011) para 59.

²⁷ *Armani da Silva v UK*, App No 5878/08 (ECtHR, 30 March 2016) para 233.

²⁸ *Sbârnea v Romania*, App No 2040/06 (ECtHR, 21 June 2011) para 127.

²⁹ See, e.g., *Giuliani v Italy*, 23458/02 (ECtHR, 25 August 2009) paras 245-255.

³⁰ R Ago, ‘Sixth Report on State Responsibility’ UN Doc A/CN.4/302 (1977), Draft Article 20. In the French version, ‘obligation of conduct’ is translated as ‘obligation de comportement’ rather than ‘obligation de moyens’.

³¹ See discussion in Dupuy (n 14); P Gautier, ‘On the Classification of Obligations in International Law’ (2012) in HP Hestermeyer et al (eds), *Coexistence, Cooperation and Solidarity: Liber Americum Rüdiger Wolfrum, Volume I* (Brill 2011) 853; Combacau (n 23) 184; J Salmon (ed), *Dictionnaire de Droit International Public* (Bruylant 2001) 767.

³² *LaGrand (Germany v United States of America)* (Judgment) [2001] ICJ Rep 466 para 111 (*LaGrand*).

³³ *ibid* para 115.

³⁴ *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14 para 187 (*Pulp Mills*).

³⁵ This conclusion does not extend to procedural obligations, which are typically obligations of result (the obligation to implement a particular procedure). The analysis also leaves aside more advanced agreements relating to specific sectors (e.g. international aviation of shipping) or to specific GHGs, where obligations of result were adopted in order to promote closer cooperation.

General norms of international law include the ‘axiomatic premises of the international legal order’,³⁶ such as the principle of sovereign equality of States, but also the systematic features that derive almost automatically from these premises or which are otherwise widely accepted. For instance, an international order based on the premise of the sovereign equality of States would hardly be imaginable without a general prohibition of the use of force. Likewise, respect for the territorial sovereignty of each State requires an obligation for every State not to cause significant transboundary environmental damages.

Accordingly, the ICJ has recognized the ‘existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control’.³⁷ This so-called ‘no-harm principle’ has also been widely recognized by States³⁸ and by most scholars.³⁹ The no-harm principle includes both a negative obligation for a State to refrain from causing serious transboundary harm and a positive obligation for a State to take measures to prevent activities causing serious transboundary harm.⁴⁰

As a corollary of the principle of sovereign equality of States, the no-harm principle calls for a wide interpretation. It relates not only to the harm caused to a specific State when air or water pollutants cross an international border, but also – and perhaps *a fortiori* – harms affecting the vital interests of many or all other States through impacts on the global environment.⁴¹ This suggests that the no-harm principle is applicable to climate change.⁴² International agreements on climate change do not preclude the application of this principle, but, to the contrary, establish international cooperation to promote compliance in an incremental manner.⁴³ Accordingly, States have an obligation to prevent activities which, through excessive GHG emissions, would cause significant transboundary harm.

Is this obligation an obligation of conduct or an obligation of result? The wording in which this principle has generally been stated is rather ambivalent. The Stockholm and Rio Declarations, for instance, mention a ‘responsibility to ensure’,⁴⁴ an expression which has alternatively been interpreted

³⁶ C Tomuschat, ‘What is General International Law?’ (Audiovisual Library of International Law) <<http://legal.un.org/avl/ls/Tomuschat.html#>>.

³⁷ *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226 para 29. See also *Pulp Mills* (n 34) para 101; *Iron Rhine Railway (Belgium v Netherlands)* (Arbitral Award) (2005) 27 RIAA 35 para 222; *Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* Judgment [1997] ICJ Rep 7 para 53 (*Gabčíkovo-Nagymaros Project*).

³⁸ See Declaration of the United Nations Conference on the Human Environment in ‘Report of the United Nations Conference on the Human Environment’ UN Doc A/CONF.48/14/Rev.1 (1973) Principle 21; Rio Declaration on Environment and Development in ‘Report of the United Nations Conference on Environment and Development’ UN Doc A/CONF.151/26 (vol I) (12 August 1992) Annex, Principle 2; United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107 recitals 8 and 9.

³⁹ See in particular P Sands and J Peel, *Principles of International Environmental Law*, 3rd edn (Cambridge University Press 2012) 191. See, however, JH Knox, ‘The Myth and Reality of Transboundary Environmental Impact Assessment’ (2002) 96 *American Journal of International Law* 291, 293; D Bodansky, ‘Customary (And Not so Customary) International Environmental Law’ (1995) 3 *Indiana Journal of Global Legal Studies* 105.

⁴⁰ Some authors suggest that these constitute two different principles, namely the no-harm principle and the preventive principle. See Sands and Peel (n 39) 200.

⁴¹ This is suggested by *Legality of the Threat or Use of Nuclear Weapons* (n 37) paras 29 and 35. See also *Gabčíkovo-Nagymaros Project* (n 37) para 53, where the Court highlighted ‘the great significance that it attaches to respect for the environment, not only for States but also for the whole of mankind’.

⁴² See UNFCCC (n 38) preamble. See also, e.g., International Law Association, ‘Resolution 2/2014, Declaration of Legal Principles Relating to Climate Change’ (April 2014) Draft Article 7A(1); B Mayer, ‘The Relevance of the No-Harm Principle to Climate Change Law and Politics’ (2016) 19 *Asia Pacific Journal of Environmental Law* 79. See however A Zahar, ‘Mediated versus Cumulative Environmental Damage and the International Law Association’s Legal Principles on Climate Change’ (2014) 4 *Climate Law* 217; B Mayer, ‘The Applicability of the Principle of Prevention to Climate Change: A Response to Zahar’ (2015) 5 *Climate Law* 1; A Zahar, ‘Methodological Issues in Climate Law’ (2015) 4 *Climate Law* 25.

⁴³ B Mayer, ‘Construing International Climate Change Law as a Compliance Regime’ (2018) 7 *Transnational Environmental Law* 115.

⁴⁴ See Rio Declaration (n 38) Principle 2; Stockholm Declaration (n 38) Principle 21.

as an obligation of result⁴⁵ and as an obligation of conduct.⁴⁶ In any case, due to the customary nature of this principle, the exegesis of any particular text could not lead to any definitive conclusion. As the International Law Commission recognized in the draft conclusions provisionally adopted on the Identification of Customary International Law, the existence and content of a norm of customary international law is to be ascertained by reference to a general practice that is accepted as law, having regard among others to the nature of the rule and the particular circumstances.⁴⁷

US scholars John Knox and Daniel Bodansky argued separately that, to qualify as customary international law, the no-harm principle lacked ‘the necessary support in state practice’.⁴⁸ As Knox and Bodansky noted, the general practice of States was then – and probably remains to date – inconsistent with the affirmation of an *obligation of result* to avoid any serious transboundary harm.⁴⁹ On the other hand, it appears undeniable that, today, virtually every State is making some efforts, for instance through adopting and implementing legislation, policies and other measures, with the view of avoiding serious environmental harms, especially those harms likely to have transboundary impacts.⁵⁰ In other words, if the lack of State practice may be a strong impediment to the identification of a customary obligation of *result*, it does not preclude the identification of a customary international law obligation of *conduct*. The same conclusion applies more specifically with regard to national action on climate change mitigation: here also, the practice of States is arguably ‘sufficiently widespread and representative, as well as consistent’,⁵¹ to confirm the existence of an obligation of conduct, under customary international law, to mitigate climate change.

In light of these considerations, the ‘responsibility to ensure’ proclaimed in the Stockholm and Rio Declarations is to be construed as the recognition of an obligation of conduct⁵² – and this is, indeed, the way in which it has generally been interpreted. The Commission on Sustainable Development, for instance, noted that ‘[c]ertainly not all instances of transboundary damage resulting from activities within a State’s territory can be prevented or are unlawful’.⁵³ The ‘Declaration of Legal Principles relating to Climate Change’ adopted by the International Law Association in 2004 construes an ‘obligation to ensure’ as an obligation to ‘exercise due diligence to avoid, minimise and reduce environmental and other damage’.⁵⁴

Likewise, while the ICJ stated the no-harm principle as an ‘obligation ... to ensure’ in its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*,⁵⁵ it has then interpreted it as the obligation of a State ‘to take all means at its disposal in order to avoid activities ... causing significant damage to the environment of another State’.⁵⁶ In a case regarding reciprocal claims between Costa Rica and Nicaragua, the ICJ found Costa Rica in breach of its obligation to take

⁴⁵ *Proceedings Pursuant to the OSPAR Convention (Ireland v United Kingdom)* (Final Award) (2003) 23 RIAA 59 paras 132-137. By contrast, provisions compelling a State to ‘take all measures at its disposal to ensure’ or ‘to do their best to ensure’ were considered as obligations of conduct. See respectively *LaGrand* (n 32) para 111; and *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v Serbia and Montenegro)* (Judgment) [2007] ICJ Rep 191 para 432.

⁴⁶ *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion) [2011] ITLOS Rep 10 paras 110ff.

⁴⁷ International Law Commission, ‘Identification of Customary International Law: Text of the Draft Conclusions Provisionally Adopted by the Drafting Committee’ UN Doc A/CN.4/L.872 (30 May 2016) Draft Conclusions 2-3.

⁴⁸ Knox (n 39) 293; Bodansky (n 39) 114–116.

⁴⁹ See, for one example out of many, H Varkkey, ‘Regional Cooperation, Patronage and the ASEAN Agreement on Transboundary Haze Pollution’ (2014) 14 *International Environmental Agreements: Politics, Law and Economics* 65.

⁵⁰ *ibid.*

⁵¹ International Law Commission, (n 47) Draft Conclusion 8.

⁵² Compare LA Duvic-Paoli and JE Viñuales, ‘Principle 2’ in JE Viñuales (ed), *The Rio Declaration on Environment and Development: A Commentary* (Oxford University Press, 2015) 107, 118-120, noting that this provision establishes a due diligence obligation.

⁵³ ‘Rio Declaration on Environment and Development: Application and Implementation, Report of the Secretary-General’ UN Doc E/CN. 17/1997/8 (10 February 1997) para 23

⁵⁴ International Law Association (n 42) Draft Articles 7A(1) and 7A(2).

⁵⁵ See *Legality of the Threat or Use of Nuclear Weapons* (n 37) para 29.

⁵⁶ *Pulp Mills* (n 34) para 101.

preventive measures in relation to activities likely to cause transboundary environmental harm,⁵⁷ even though, in the Court's own finding, such harm had not occurred.⁵⁸

3.2 Obligations of conduct in the UNFCCC regime

The UNFCCC regime consists of treaties and associated Conference of the Parties (COP) decisions through which States seek, essentially, to foster compliance with the no-harm principle.⁵⁹ Through the UNFCCC and subsequent agreements, States made successive commitments to limit and reduce their GHG emissions or enhance sinks of GHGs. These commitments were framed differently in each agreement. While the UNFCCC established an open-ended obligation of conduct, the Kyoto Protocol, by contrast, created an obligation of result. In turn, the Paris Agreement reverted to an obligation of conduct, but associated it with a specific objective, defined by reference to the party's successive NDCs.

In the UNFCCC, a distinction is drawn between the commitments applicable to all parties and those only applicable to developed country parties. Under Article 4(1)(b), all parties commit to 'formulate, implement, publish and regularly update ... programmes containing measures to mitigate climate change'.⁶⁰ In addition, under Article 4(2)(a), developed country parties commit to 'adopt ... policies and take corresponding measures on the mitigation of climate change'.⁶¹ These two provisions include procedural obligations (the obligation to 'formulate', 'publish' and 'update' programmes and to 'adopt ... policies') as well as substantive obligations (the obligation to 'implement' programmes and to 'take ... measures' corresponding to their policies). The latter obligations relate to an endeavour, not to a result: they are obligations of conduct.⁶² Yet, the UNFCCC does not define any particular benchmark to assess whether sufficient efforts have been made. While Article 4(2)(b) sets an 'aim of returning ... to [developed country parties'] 1990 levels of [GHG] emissions,' this is not explicitly related to the substantive obligation provided in a different provision.⁶³ The weakness of the substantive obligations of the parties to the UNFCCC does not relate to the nature of these obligations (as obligations of conduct), but to the undefined nature of their objective.

Following its entry into force, the parties to the UNFCCC conducted further negotiations on 'appropriate action for the period beyond 2000, including the strengthening of the commitments' of developed country parties.⁶⁴ Article 3(1) of the Kyoto Protocol established an obligation for developed States to 'ensure' that their average annual GHG emissions between 2008 and 2012 do not exceed assigned amounts included in Annex B: the *quantified* emission limitation or reduction commitments (QELRCs).⁶⁵ As noted above, international courts and tribunals have alternatively interpreted an obligation 'to ensure' has an obligation of result or as an obligation of conduct.⁶⁶ In relation to the Kyoto Protocol, there appeared however to be a general understanding, albeit tacit, that the mitigation commitments under Article 3(1) imposed an obligation of result on Annex B parties.⁶⁷

⁵⁷ *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica)* (Judgment) [2015] ICJ Rep para. 162.

⁵⁸ *ibid* para 217.

⁵⁹ Mayer (n 43).

⁶⁰ UNFCCC (n 38) art 4(1)(b).

⁶¹ *ibid* art 4(2)(a).

⁶² See also C Voigt, 'State Responsibility for Climate Change Damages' (2008) 77 *Nordic Journal of International Law* 1, 6.

⁶³ See P Sands, 'The United Nations Framework Convention on Climate Change' (1992) 1 *Review of European Community and International Environmental Law* 270, 274.

⁶⁴ UNFCCC 'Decision 1/CP.1, The Berlin Mandate' UN Doc FCCC/CP/1995/7/Add.1 (6 June 1995) recital 4.

⁶⁵ Kyoto Protocol (n 1) art 3(1).

⁶⁶ See n 45-46.

⁶⁷ This is for instance implicit in Kyoto Protocol (n 1) art 3(2), calling on parties to report on 'demonstrable progress in achieving' commitments.

This understanding certainly had to do with the specific nature of QELRCs.⁶⁸ Quantified indicators may be used to assess the efforts made by States in implementing an obligation of conduct,⁶⁹ but they are more typically aimed to facilitate an assessment of the result. The adoption of complex technical rules on accountability aimed at establishing an ‘objective’ way of assessing compliance based on performance, not on efforts. Consistently, compliance with this commitment was approached essentially as a retrospective comparison of the emissions reported by a party with its QELRC.⁷⁰ This allowed Canada to avoid a finding of non-compliance during the commitment period, even though it was not taking the necessary measures to ensure compliance.⁷¹ By withdrawing from the Kyoto Protocol in late 2011, Canada avoided a retrospective finding (which could only have come after the true-up period) that it had not achieved the expected result.⁷²

In addition, Article 3(2) of the Kyoto Protocol, provides that each Annex I party ‘shall, by 2005, have made demonstrable progress in achieving its commitments’.⁷³ The use of the future perfect may cast doubt on whether this provision was intended to create an obligation at all. If it did, however, the obligation would appear to be an obligation of conduct, albeit vague and punctual. It would have been of no actual consequences, however, as the Kyoto Protocol did not enter into force until 16 February 2005.

The Paris Agreement defined the obligation of its parties in different terms. Leaving aside all procedural obligations, the key substantive obligation with regard to climate change mitigation is to be found in the second sentence of Article 4(2): ‘Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of [successive nationally determined] contributions’.

This provision creates a legal obligation, as clearly indicated by the word ‘shall’. This obligation belongs to each individual party,⁷⁴ acting individually or in coordination with others. The pursuance of unspecified ‘measures’ relates to a conduct rather than to the achievement of a result. This obligation of conduct is binding upon the parties to the Paris Agreement, in relation to its object, in the same way as any treaty obligation is upon the parties to any treaty in relation to their object.⁷⁵

Bodansky contends that the object of the obligation under Article 4(2), second sentence, boils down ‘to pursue [unspecific] measures in good faith’,⁷⁶ but this ignores the second part of the

⁶⁸ See, e.g., D Bodansky, ‘Climate Commitments: Assessing the Options’ in E Diringer (ed), *Beyond Kyoto: Advancing the International Effort against Climate Change* (Pew Center on Global Climate Change 2003) 37, 40.

⁶⁹ For an example, the (soft law) obligation of developed States ‘to make ... concrete efforts towards the target of 0.7 per cent of gross national product for official development assistance to developing countries’ is clearly expressed as an obligation of conduct. See UNGA ‘The Future We Want’, UN Doc A/RES/66/288 (27 July 2012) para 258. The Paris Agreement provides another example, as discussed below.

⁷⁰ See, e.g., Kyoto Protocol (n 1) art 7(1) (implying that compliance with Article 3 is to be ascertained based on GHG inventories), 12(3)(b) (implying that certified emission reductions, rather than the projects undertaken, may ‘contribute to compliance’). See also UNFCCC ‘Decision 24/CP.7, Procedures and Mechanisms Relating to Compliance under the Kyoto Protocol’ (21 January 2002) Annex, para V(4)(a).

⁷¹ See, e.g., UNFCCC ‘Report of the In-depth Review of the Fifth National Communication of Canada’ UN Doc FCCC/IDR.5/CAN (10 November 2011) para 126. See also UNFCCC ‘Report on the Eleventh meeting of the Facilitative Branch’ UN Doc CC/FB/11/2012/2 (27 February 2012) paras 13-14, where the Facilitative Branch of the Compliance Committee concluded that ‘it was seized of an early warning issue relating to Canada’ after an expert review team’s report had raised concerns ‘in connection with potential non-compliance by Canada’.

⁷² See UNFCCC Compliance Committee, Facilitative Branch, ‘Report on the Meeting’ UN Doc CC/FB/12/2012/3 (9 November 2012).

⁷³ Kyoto Protocol n (1) art 3(2).

⁷⁴ Winkler (n 8) 147. Compare D Bodansky, ‘The Legal Character of the Paris Agreement’ (2016) 25 *Review of European, Comparative and International Environmental Law* 142. An obligation is, by definition, held by a (unique) person. Therefore, there is no such thing as a legal obligation held collectively by a community of States. If this provision indicated a collective obligation of the parties of the Paris Agreement, this obligation would not be of a legal nature (it could be a moral obligation). Such an interpretation would be inconsistent with the word ‘shall’, which, when contained in a treaty, implies a legal obligation.

⁷⁵ See Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331 art 26.

⁷⁶ Bodansky (n 4) 304. This is based on his reading of this sentence as if there were two distinct components – an obligation and an aim – separated by an impenetrable comma. One may doubt that a comma may separate the

sentence. The ‘aim’, in the second part of the sentence, is a benchmark for the stringency of the measures to be pursued.⁷⁷ The French version (*‘prennent des mesures internes ... en vue de réaliser les objectifs’*) indicates more clearly than the circumvoluted English version that the measures must reasonably be viewed, at the time when they are pursued, as capable of realizing the objective.⁷⁸ Thus, by contrast to the open-ended obligation of conduct established under the UNFCCC, the Paris Agreement creates an obligation of conduct which is directed towards a specific objective – the very objective that parties defined in their NDC.⁷⁹ The latter obligation of conduct, being more specific, is likely to be significantly more effective than the vague commitment under the UNFCCC.

The object of Article 4(2), second sentence, is limited to the ‘objectives’ of the successive NDCs of the parties. Some NDCs define a unique overarching mitigation objective, while others contain several objectives, for instance on peaking and carbon dioxide intensity.⁸⁰ Likewise, some NDCs describe specific steps that a party was considering in order to achieve this target.⁸¹ ‘Objectives’ may be construed in various ways. Yet, given the object and purpose of the Paris Agreement⁸² and the function of NDCs to participate to ‘the global response to climate change’,⁸³ the ‘objectives’ of successive NDCs should arguably be understood as the overall contribution that each successive NDC pledged to international action on climate change mitigation, in particular the limitation and reduction of a country’s GHG emissions.

Some NDCs do not only determine a target and its modalities; they also qualify the nature of a commitment as a commitment to a conduct or to a result. For instance, the United States promised ‘to achieve an economy-wide target of reducing its [GHG] emissions by 26%-28% below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28%’.⁸⁴ Likewise, China pledged ‘to achieve the peaking of carbon dioxide emissions around 2030 and mak[e] best efforts to peak early’.⁸⁵ Each of these two provisions commits States to realize a specific result and to make an endeavour to a more ambitious target. When read in the light of the Paris Agreement, these provisions are qualified by the terms of Article 4(2), second sentence, which excludes any obligation of result. Yet, obligations of result may possibly arise from NDCs themselves, independently from the Paris Agreement, if and inasmuch as these NDCs can be qualified as unilateral declarations capable of creating legal obligations.⁸⁶

4 AN ASSESSMENT OF OBLIGATIONS OF CONDUCT

measures from the aim ‘with’ which they must be pursued. In any case, this comma is absent from two of the six original languages of the Paris Agreement (French and Arabic).

⁷⁷ Compare Voigt (n 22) 20, interpreting Article 4(2) as requiring measures which are ‘meaningful and, indeed, effective to function as a means to this end’.

⁷⁸ ‘*Mesures en vue de*’ (literally: ‘measures in the view of’, corresponding to ‘measures, with the aim of’) has typically been translated as ‘measures to’ or ‘measures for’; see, respectively, *Gabčíkovo-Nagymaros Project* (n 37) para 25; and *Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore)* (Judgment) [2008] ICJ Rep 12 para 147.

⁷⁹ Unlike the affirmation of a goal in UNFCCC (n 38) art 4(2)(b), art 4(2), second sentence, of the Paris Agreement (n 2) contains a clear obligation of conduct for the parties to pursue this aim. Contra Bodansky (n 74) 146.

⁸⁰ See China, ‘Enhanced Actions on Climate Change: China’s Intended Nationally Determined Contributions’ (30 June 2015) <<http://www4.unfccc.int/ndcregistry/PublishedDocuments/China%20First/China%27s%20First%20NDC%20Submission.pdf>> (China INDC).

⁸¹ *ibid.*

⁸² Paris Agreement (n 2) art 2(1)(a).

⁸³ *ibid.* art 3.

⁸⁴ ‘Intended Nationally Determined Contribution of the United States’ (2015) <<http://www4.unfccc.int/ndcregistry/PublishedDocuments/United%20States%20of%20America%20First/U.S.A.%20First%20NDC%20Submission.pdf>> 3 (emphasis added).

⁸⁵ China INDC (n 80) at 5 (emphasis added).

⁸⁶ International Law Commission, ‘Guiding Principles Applicable to Unilateral Declarations of States Capable of Creating Legal Obligations’ in *Yearbook of the International Law Commission, 2006, Volume II*, UN Doc A/CN.4/SER.A/2001/Add.1 (Part 2) 176, Principle 1.

The previous section has shown the prevalence of obligations of conduct in the international law on climate change mitigation, with the notable exception of the Kyoto Protocol. This section explains this prevalence. A first subsection discusses the general rationale for obligations of conduct – which relates to the role of luck in the realization of a goal – and argues that this rationale applies to national action on climate change mitigation. A second subsection shows that, contrary to a common misconception, obligations of conduct are not necessarily less effective than obligations of result. Lastly, a third subsection addresses the challenge of monitoring compliance with obligations of conduct.

4.1 The rationale for obligations of conduct

No useful purpose would be served by imposing on a debtor an obligation that he or she cannot discharge. An obligation of result is based on the assumption that the debtor would be able to realize an outcome. This assumption can be rebutted in limited circumstances precluding wrongfulness, such as *force majeure* – circumstances not only external to the debtor, but also unpredictable at the time when the obligation was created and irresistible by the debtor.⁸⁷ By contrast, an obligation of conduct presumes that, while the debtor has some control over the desired outcome, luck, too, plays a role: external factors beyond the control of the debtor may make its realization more difficult and costlier than expected when the obligation was created, if not downright impossible.⁸⁸ When luck interferes significantly in the realization of the outcome, obligations of conduct focus on the only thing that the debtor can promise: to make his best endeavour.⁸⁹

International courts and tribunals have thus identified obligations of conduct (whether or not they used this term) when the efforts of a State may favour an outcome but not guarantee its realization. In the *Corfu Channel* case, for instance, the ICJ identified ‘every State’s obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States’,⁹⁰ as part of what it later referred to as ‘the due diligence that is required of a State in its territory’.⁹¹ Although it would be nearly impossible for a State to prevent *any* use of its territory in ways harmful to third States, a State can reasonably be expected to take ‘appropriate steps’⁹² in this sense.

Substantial efforts are required to protect the environment in general and to mitigate climate change in particular. States are not always able to prevent all activities causing serious transboundary harm, such as activities generating excessive GHG emissions, without compromising vital or otherwise important national interests. Moreover, some States lack the resources to implement comprehensive laws and policies on environmental protection. In this context, by construing the no-harm principle as an obligation of conduct,⁹³ the ICJ acknowledged that the best efforts of a State may not always be sufficient to prevent significant transboundary damage.

Similar considerations were naturally reflected in the UNFCCC regime. Consistently with the paradigm of a sustainable development,⁹⁴ the UNFCCC placed great emphasis on the need to reconcile climate action with development policies.⁹⁵ Differentiation among States was one way to reconcile environmental protection with the most pressing developmental concerns: developed States

⁸⁷ International Law Commission, ‘Draft Articles on the Responsibility of States for Internationally Wrongful Acts’ in *Yearbook of the International Law Commission, 2001, Volume II*, UN Doc A/CN.4/SER.A/2001/Add.1 (Part 2) 76, art 23 (Draft Articles on State Responsibility).

⁸⁸ This includes cases of *force majeure*, but also cases where external factors are not strictly speaking irresistible or unforeseeable.

⁸⁹ *Combacau* (n 23) 196.

⁹⁰ *Corfu Channel (United Kingdom v Albania)* (Judgment) [1949] ICJ Rep 22.

⁹¹ *Pulp Mills* (n 34) para 101. While the obligation ‘not to allow’ is strictly an obligation of result (the negative obligation not to perform an act allowing), it is only one aspect of a broad obligation of conduct for a State to ensure that its territory is not used in ways harmful to other States.

⁹² See *United States Diplomatic and Consular Staff in Tehran (United States of America v Iran)* (Judgment) [1980] ICJ Rep 3 para 63.

⁹³ See n 56.

⁹⁴ See generally the Rio Declaration (n 38).

⁹⁵ UNFCCC (n 38) art 3(4) *et passim*.

would take the lead and provide support to developing States.⁹⁶ The Paris Agreement took a more flexible approach to differentiation, letting it essentially for each country party to determine and communicate its ‘ambitious’ efforts.⁹⁷

Yet, differentiation – whether based on a list of parties or even on nationally determined contributions – does not take into account the changes of circumstances likely to occur during the period of, typically, 10 to 15 years between the communication and the implementation of a national commitment on climate change mitigation.⁹⁸ When the Kyoto Protocol was adopted, few predicted that the collapse of emissions-intensive industries in Eastern Europe would bring quantities of cheap credits on international carbon markets (‘hot air’),⁹⁹ but none could foresee that the 2009 global economic crisis would make it significantly easier for Annex I parties to meet their commitments.¹⁰⁰ While QELRCs related to a five-year average, GHG emissions data reported by Annex I country parties during the commitment period show significant year-by-year variation, especially for smaller economies, with single year deviation up to 15 percent from the five-year commitment period average.¹⁰¹

Likewise, between now and 2025 or 2030, various unforeseeable circumstances could facilitate or hinder the implementation of NDCs. The large-scale deployment of renewable energies will perhaps achieve economies of scale and trigger a self-supporting investment trend. Or a rapid global economic growth may make it much more difficult than anticipated for countries to achieve their target.¹⁰² The efforts of specific States will be hindered or facilitated by international energy markets: for instance, the availability of affordable natural gas may be instrumental to the success of NDCs which rely on a shift from coal to gas to achieve their NDC. When an NDC defines quantified targets in relation to a particular year (e.g. 2025 or 2030), its achievement will be contingent to multiple circumstances occurring that particular year.

In the 1990s, with very little experience of mitigation action, it would have been nearly impossible for any party to the UNFCCC to assess the cost of achieving a given large-scale mitigation outcome. In such circumstances, the paradigm of a sustainable development called for ambitious objectives accompanied with a recognition of uncertainties regarding the capacity of States to implement them at any particular time. The Kyoto Protocol did the exact opposite: it imposed unambitious but inflexible national commitments, namely the obligation of result for Annex I parties to achieve QELRCs ten to fifteen years later. The cost that each party would need to pay to achieve its target was, by and large, unknown.¹⁰³ States were essentially asked to sign a blank check, an approach which was neither conducive to ambition, nor to participation.¹⁰⁴ States are reluctant to bind themselves when they ignore the cost of compliance and their ability to pay for it.

⁹⁶ *ibid* art 4. See also, generally, the Kyoto Protocol (n 1).

⁹⁷ Paris Agreement (n 1) art 3.

⁹⁸ The Kyoto Protocol, adopted in 1997, applied to the commitment period between 2008 and 2012, namely 11 to 15 years later. Some intended NDCs, communicated in 2014 and 2015, apply up to 2030. According to UNFCCC ‘Decision 1/CP.21, Adoption of the Paris Agreement’ UN Doc FCCC/CP/2015/10/Add.1 (29 January 2016) paras 23 and 24, parties are to update their NDCs at least ten years in advance.

⁹⁹ S Oberthür and H Ott, *The Kyoto Protocol: International Climate Policy for the 21st Century* (Springer 1999) 197ff.

¹⁰⁰ GP Peters et al, ‘Rapid Growth in CO₂ Emissions after the 2008–2009 Global Financial Crisis’ (2011) 2 *Nature Climate Change* 2, 4.

¹⁰¹ See ‘True-up Period Information report by the Secretariat’ (25 November 2015) <http://unfccc.int/kyoto_protocol/reporting/items/9044.php>. In 2009, Estonia’s GHG emissions were 15 percent lower than its average between 2008 and 2012, while the 2008 GHG emissions of Lithuania and Romania were 14 percent higher than their respective average during this period.

¹⁰² See, e.g., AF Hof and others, ‘Global and Regional Abatement Costs of Nationally Determined Contributions (NDCs) and of Enhanced Action to Levels Well below 2 °C and 1.5 °C’ (2017) 71 *Environmental Science and Policy* 30.

¹⁰³ See, e.g., WD Nordhaus and JG Boyer, ‘Requiem for Kyoto : An Economic Analysis of the Kyoto Protocol’ (1999) 20 *The Energy Journal* 93. It certainly did not help that key modalities of implementation, including regarding the flexibility mechanisms, were agreed upon years after the QELRCs were determined.

¹⁰⁴ A central concern, in the United States, is that compliance with the Kyoto Protocol could cause ‘serious harm to the U.S. economy’. See US S.Res. 98, 105th Cong., 143 Cong. Rec. S8138-39 (25 July 1997).

Reverting to an obligation of conduct, the Paris Agreement has been described as a tradeoff between two camps – those favourable to binding mitigation targets and those opposed to it.¹⁰⁵ But more than a tradeoff, Article 4(2), second sentence, results from a skilful diplomatic twist which should give full satisfaction to the former camp. Resorting to the Romanistic concept (and its convoluted English expression), the French presidency of COP21 in Paris created a consensus on an obligation for the parties to seek to take measures to realize their contribution. By limiting the object of the obligation to what is under the control of the parties, this provision ensures that parties will not be sanctioned when external circumstances hinder their efforts, thus reflecting the principle that a State's obligation depends on its capabilities.¹⁰⁶ Article 4(2), second sentence, establishes a normative framework where parties can anticipate the resources necessary to fulfil their contribution and, thus, should feel comfortable to make ambitious commitments.

4.2 The stringency of obligations of conduct

Early commentaries on the Paris Agreement have generally viewed the obligation of conduct expressed in Article 4(2), second sentence, as a weak provision – one which demands less on States than an obligation of result.¹⁰⁷ Yet, in the civil law traditions from which the concept originates, obligations of conduct are not viewed as inherently 'inferior' to obligations of result.¹⁰⁸

In some circumstances, obligations of result may be more demanding than obligations of conduct. An obligation of conduct requires one to try; an obligation of result to succeed. Therefore, as Article 4(2), second sentence, of the Paris Agreement imposes an obligation of conduct, 'a party could fall short of its NDC without the consequences that attach to breaches of a legal obligation under the law of state responsibility'.¹⁰⁹ The ICJ adopted this line of reasoning in a case between Bosnia and Serbia regarding the application of the Convention on the Prevention and Punishment of the Crime of Genocide. Agreeing with Serbia that the obligation to prevent genocide is an obligation of conduct, the Court noted accordingly that '[a] State does not incur responsibility simply because the desired result is not achieved'.¹¹⁰ While the Court then found Serbia responsible for a breach of international law, it was based on evidence that Serbia had not 'shown that it took any initiative to prevent' the genocide in Srebrenica.¹¹¹

This scenario could unfold in various ways in relation to obligations of conduct related to climate change mitigation, for instance under the Paris Agreement. Consider for instance a developing State which, having committed to an absolute emissions limitation target through its NDC, was to undergo an unexpected decade of rapid economic growth and, because of this, was unable to achieve its target. This country would have been in breach of an obligation of result, but it may not be in breach of an obligation of conduct inasmuch as all reasonable steps were taken. Yet, if international transfers of mitigation outcomes provide a functional way for a State to ensure compliance with its target by 'buying' mitigation outcomes abroad,¹¹² there may be few cases where a State would be able to justify that, despite taking relevant measures, it was unable to fulfil the commitment contained in its NDC.

On the other hand, obligations of conduct may also reveal more demanding than obligations of result. The objective of an obligation may be achieved through luck despite the omission of the debtor to take appropriate steps. For instance, a medical doctor may fail to give an appropriate treatment to her patient, but the patient may consult another doctor or simply recover on his own. In other cases, the outcome of the conduct may be unknown, for instance when evidence could not be retrieved either temporarily or permanently. A breach of an obligation of conduct occurs, however,

¹⁰⁵ See, e.g., L Rajamani, 'Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics' (2017) 65 *International and Comparative Law Quarterly* 493, 498; Winkler (n 8) 147.

¹⁰⁶ See Paris Agreement (n 2) art 2(2) *et passim*.

¹⁰⁷ See for instance Bodansky et al (n 8) 231, noting that, although this provision establishes 'binding obligations, they are obligations of conduct rather than result'.

¹⁰⁸ See in particular references in n 23.

¹⁰⁹ Rajamani and Brunnée (n 5) 542.

¹¹⁰ *Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (n 45) para 430.

¹¹¹ *ibid* para 438.

¹¹² Paris Agreement (n 2) art 6(2) and 6(4).

whenever the debtor fails to adopt the required conduct.¹¹³ For lack of interest to bring proceedings before courts and possibly due to additional evidentiary hurdles, claims for a breach of an obligation of conduct are relatively infrequent, in domestic law, when the result has been achieved or is unknown.¹¹⁴ However, such cases have occasionally been brought before international courts and tribunals.

An illustration can be found in the Advisory Opinion of the ICJ regarding the immunity from legal process of Param Cumaraswamy, a Special Rapporteur of the United Nations (UN) Commission on Human Rights. Cumaraswamy was the object of several lawsuits before Malaysian courts following the publication of an interview. Malaysia contended that its obligation with regard to Cumaraswamy's immunity was an obligation of result. As Malaysian Courts had not yet reached a final decision as to Cumaraswamy's immunity, the question of Malaysia's compliance with these obligations would be 'premature'.¹¹⁵ The Court, however, considered that Malaysia had an obligation of conduct to take relevant measures to ensure Cumaraswamy's immunity. The failure of the Malaysian government to inform Malaysian courts of the finding of the Secretary-General that Cumaraswamy was entitled to immunity was qualified as a breach of this obligation of conduct, notwithstanding the outcome of the suits.¹¹⁶

Likewise, the recent judgment of the ICJ in reciprocal claims between Costa Rica and Nicaragua illustrates the application of obligations of conduct in situations where no obligation of result has been breached. Each State alleged that the other had breached its obligation to conduct a transboundary environmental impact assessment before embarking on an activity having the potential adversely to cause transboundary environmental damages. The Court interpreted this obligation as a component of the obligation of States not to cause significant transboundary harm, which, as discussed before, it characterized as an obligation of conduct.¹¹⁷ It then found that Costa Rica 'ha[d] not complied with its obligation under general international law to carry out an environmental impact assessment'¹¹⁸ concerning the construction of a road which 'carried a risk of significant transboundary harm'.¹¹⁹ Yet, the Court also found that Nicaragua had not provided evidence of such significant transboundary harm.¹²⁰ The ICJ thus confirmed its understanding that a State may be found in breach of its obligation of conduct even if the objective of this obligation (here, the avoidance of transboundary harm) has been achieved.

One does not need to imagine how such hypotheses could unfold in relation to climate change mitigation: Canada's experience under the Kyoto Protocol provides a ready-made example. The compliance of Annex I Parties with their QELRC could not readily be assessed until the expiration of the true-up period. Canada's withdrawal from the Kyoto Protocol before the end of the commitment period prevented it from being found, retrospectively, in breach of its obligation of result.¹²¹ An earlier finding of non-compliance would likely have been possible, based on evidence that Canada was not taking the necessary measures to implement its commitment,¹²² if the Kyoto Protocol had imposed an obligation of conduct.

Current political developments in the United States suggest another scenario where an obligation of conduct would reveal more stringent than an obligation of result. Despite the decision of President Trump to 'cancel' the Paris Agreement, the United States remains a party to the Paris Agreement until at least the end of 2020. Yet, under the Trump administration, the US federal government has taken no measure to realize the objectives of its NDC. This does not necessarily mean that the United States will not achieve these objectives by 2025. A large coalition of subnational authorities, civil society organizations and citizens have mobilized to try to ensure that the United

¹¹³ See, e.g., *Combacau* (n 23) 194; *Wolfrum* (n 15) para 92.

¹¹⁴ *Combacau* (n 23) 194.

¹¹⁵ *Difference Relating to Immunity from Legal Process of a Special Rapporteur of the Commission on Human Rights* (Advisory Opinion) [1999] ICJ Rep 62 para 58.

¹¹⁶ *ibid* paras 62 and 67(2)(a).

¹¹⁷ *Certain Activities Carried out by Nicaragua in the Border Area* (n 57) para 104. See also *Knox* (n 39) 296.

¹¹⁸ *Certain Activities Carried out by Nicaragua in the Border Area* (n 57) para 162.

¹¹⁹ *ibid* para 156.

¹²⁰ *ibid* para 196ff.

¹²¹ See n 71.

¹²² See n 72.

States, as a nation, achieves the objectives disregarded by its federal government. Other countries may also intervene, for instance through trade measures which would reduce industrial production in the United States. A new administration may also shift course in time to reach the objectives of the NDC in 2025. Yet, external circumstances do not exonerate the United States from its obligation of conduct under the Paris Agreement.

Although the conduct of any State organ could engage the responsibility of that State,¹²³ obligations of conduct have generally been interpreted as requiring action carried out by the national government. Thus, in *LaGrand*, the obligations of conduct imposed on the United States by an order of the ICJ – to ‘take all measures at its disposal to ensure that Walter LaGrand is not executed’¹²⁴ – was implicitly directed towards the federal government.¹²⁵ Likewise, in its Advisory Opinion regarding the immunity from legal process of Param Cumaraswamy, the ICJ identified an obligation held by a national government to convey information about the immunity of a UN agent to national courts.¹²⁶ These decisions suggest that there needs to be a chain of instructions between the authority consenting to the obligation of conduct on behalf of the State and the measures implementing this obligation. By contrast, the spontaneous efforts of subnational authorities claiming to act on behalf of the United States will not ensure compliance with the obligation of conduct of the United States, even though these efforts could mitigate the harm caused by non-compliance.

4.3 The challenge of assessing compliance with obligations of conduct

The breach of an obligation is established by evidence that the conduct of a person is not in conformity with what was required of that person by that obligation.¹²⁷ Accordingly, the breach of an obligation of result is established simply by evidence that what had been promised has not realized. For instance, whether Annex I country parties complied with their emissions limitation and reduction commitments is established by comparing their emissions during the commitment period with that commitment. Once the tedious work of accounting for GHG emissions is completed, the numbers speak for themselves.

By contrast, establishing the breach of an obligation of conduct requires an assessment of the measures taken by the debtor, based on the means and information available to that person at the relevant time. Thus, assessing compliance with an obligation of conduct is often more difficult than with an obligation of result.¹²⁸ In order to determine whether a party to the Paris Agreement is complying with its obligation under Article 4(2), second sentence, of this treaty, one will need to conduct a detailed and comprehensive review, not only of the measures adopted and implemented by that country, but also the information and resources available to that country when it adopted and implemented the said measures. On the other hand, rigorous emissions accounting will become less essential. The critical question will thus be whether the State implemented efforts as stringent as what was implied by the objectives of its NDC.

The burden of proof belongs, in principle, to the debtor of the obligation.¹²⁹ Thus, in the case mentioned above regarding the application of the Genocide Convention, the ICJ implied that it was for Serbia to prove that it had taken measures to prevent a genocide which Serbia knew then to be at serious risk of occurring.¹³⁰ It would have been impractical for Bosnia (the applicant) or any third party to prove that Serbia had taken no such measure before Serbia communicated the measures that it alleged to have taken. Likewise, in the process of determining whether a State has complied with their treaty commitments regarding climate change mitigation, it belongs to each State to provide evidence

¹²³ Draft Articles on State Responsibility (n 87) art 4.

¹²⁴ *LaGrand (Germany v United States of America)* (Order, Provisional Measures) [1999] ICJ Rep 9 para 29.

¹²⁵ Consistently, a finding of non-compliance was based not on the execution itself (which had been directed and carried out by State agents), but by the failure of the national authorities to take adequate measures to prevent it. See *LaGrand* (n 32) para 111.

¹²⁶ *Difference Relating to Immunity from Legal Process of a Special Rapporteur of the Commission on Human Rights* (n 115) para 62.

¹²⁷ See, e.g., Draft articles on State Responsibility (n 87) art 12.

¹²⁸ See, e.g., *Combacau* (n 23) 195; *Knox* (n 39) 294.

¹²⁹ See, by analogy, Code Civil, original version (n 11) art 1315.

¹³⁰ *Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (n 45) para 438.

of the measures that it has pursued. National communications under the UNFCCC and subsequent decisions of the parties are an opportunity for countries to report publicly on the measures they have pursued to comply with their commitments.¹³¹ Closer scrutiny would be justified when a State does not appear to be in a pathway consistent with its specific objective – and stronger evidence will then be expected for a State to establish compliance.

Ultimately, it is up to third parties to make authoritative findings regarding the compliance of States with their obligation of conduct. Assessment by civil society organizations may play an important role, along with the non-punitive mechanisms established within the UNFCCC regime, in particular the enhanced transparency framework and the implementation and compliance mechanism established by the Paris Agreement.¹³² But alleged breaches of obligations of conduct may as well be brought before international courts and tribunals, who would eventually need to assess the evidence of compliance provided by the parties.

The breach of an obligation of conduct can be established by evidence that the debtor failed to implement specific measures which would have been instrumental to the realization of the objective. For instance, a doctor would breach her obligation of conduct by failing to read the examination results of a patient. Similarly, the ICJ held that, in order to ensure Special Rapporteur Param Cumaraswamy's immunity from legal process, the Malaysian Government had to inform its courts of the letter it received from the UN Secretary-General according to which Cumaraswamy was entitled to immunity.¹³³ Alternatively, the breach of an obligation of conduct can also be established by evidence that the debtor took the initiative to implement measures which hindered the realization of the objective. The approval of several pipeline projects by the Trump administration, for instance, are arguably incompatible with the realization of the objective of its NDC. The obligation to take or not to take such actions is generally not absolute, but conditional on an alternative course of conduct of an equivalent effect. The doctor could for instance refer the patient to her colleague, while the Malaysian Government could invite the UN Secretary General to inform courts directly.

The obligations of conduct related to climate change mitigation imply various actions. Under the no-harm principle, States have procedural obligations of conduct: they must assess their contribution to global GHG emissions¹³⁴ and, upon finding that this contribution is non-negligible, develop a strategy to address it.¹³⁵ Once a strategy has been formulated, they must implement the steps described therein or alternative measures of an equivalent effect. Likewise, the commitment of the parties to the UNFCCC to 'formulate [and] implement ... programmes containing measures to mitigate climate change' is, at first, an obligation of conduct; but once a party has formulated these programmes, the obligation to 'implement' these specific measures becomes an obligation of result. The same reasoning applies in relation to Article 4(2), second sentence, of the Paris Agreement. Once a party to the Paris Agreement has identified the measures on which it would rely to pursue the objective of its NDC, it is obligated to implement these measures, unless it implements alternative measures of an equivalent effect. A party which, without reason, fails to develop a strategy to realize the objective of its NDC, or which, having adopted relevant laws, fails to implement them, would be in breach of its obligation under Article 4(2), second paragraph, of the Paris Agreement.

5 CONCLUSION

Obligations of conduct play a natural and prominent role in the international law on climate change mitigation. They arise from customary international law and from treaties, with the exception of the Kyoto Protocol. Obligations of conduct are not necessarily anything *less* than obligations of result. Compliance with an obligation of conduct may be as demanding as compliance with an obligation of result. The weakness of the commitments contained in the UNFCCC does not relate to their nature,

¹³¹ UNFCCC (n 38) art 12(1).

¹³² Paris Agreement (n 2) art 13(1) and 15(1).

¹³³ *Difference Relating to Immunity from Legal Process of a Special Rapporteur of the Commission on Human Rights* (n 115) para 62.

¹³⁴ See, by analogy with transboundary environmental impact assessments, *Certain Activities Carried out by Nicaragua in the Border Area* (n 57) para 104.

¹³⁵ UNFCCC (n 38) art 4(1)(a-b).

as obligations of conduct, but rather to the absence of a benchmark in relation to which the efforts of each party could be assessed. The Paris Agreement overcomes this limitation by linking an obligation of conduct with the specific objective contained in NDCs.

Obligations of conduct in international climate agreements reflect the general interpretation of the no-harm principle. They allow ongoing negotiations on ambition to be conducted on bases more conducive to State consent. Such obligations may foster ambition and participation as national governments are assured that their efforts will be recognized even if they are unable to achieve their target – or even if they overachieve it. Obligations of conduct invite more complex considerations at the stage of assessing compliance, but it may also facilitate an early review of compliance before the expiration of the period of commitment. In this analysis, the obligation of conduct of the parties to the Paris Agreement to pursue measures to achieve the objectives of their successive NDCs provide strong foundations for effective cooperation on climate change mitigation.

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